

Calendar 2016-17

COLLEGE OF SCIENCE & ENGINEERING

VICE-PRINCIPAL AND HEAD OF COLLEGE: Professor Muffy Calder

Dean of Graduate Studies: Professor Susan Waldron **Dean of Learning & Teaching:** Professor John Davies

Dean of Research: Professor David Cumming

DATES OF SEMESTERS

Semester 1: 19th September 2016 - 16th December 2016

Christmas Vacation: 19th December 2016 - 6th January 2017

Semester 2: 9th January 2017 - 26th May 2017

Spring Vacation: 27th March 2017 - 14th April 2017

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SUMMARY OF AWARDS MADE IN THE COLLEGE OF SCIENCE & ENGINEERING

The University awards the following degrees in the College of Science & Engineering. These degrees may be awarded jointly with other institutions where the Senate has approved an agreement to this effect. Where such an agreement exists, the degree titles of the partner institution may be used for the award of joint degrees with the University of Glasgow.

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GENERIC UNDERGRADUATE REGULATIONS

The Generic Undergraduate Regulations are governed by Resolution No. 582 of the University Court which came into effect on 1 September 2008, as subsequently amended, with the following provisions:

- 1. All undergraduate degrees of the University of Glasgow except those listed in §20 of the section entitled 'Regulations' may be governed by common regulations (the Generic Undergraduate Regulations) and by supplementary regulations specific to each degree.
- 2. The Senate may make such Generic Undergraduate Regulations, which are subject to the approval of the University Court these are stated in §1 §19 of the section entitled 'Regulations'.

REGULATIONS

1. Introductory and Definitions

These regulations must be read together with each degree's supplementary regulations, programme specification, and associated programme and course documentation (handbooks) which, in some cases, will contain further requirements associated with the award. The definitions set out in the <u>Glossary of Terms</u> apply to these regulations.

2. Scope of Regulations

These regulations apply to all undergraduate degrees offered by the University of Glasgow other than those listed in §20.

3. Duration of Study

A candidate for a degree shall, subject to §4, normally attend the University of Glasgow either full-time or part-time for at least the number of academic sessions indicated as a minimum in the table below. The candidate must normally complete his or her studies for the award of a degree within the number of sessions indicated as a maximum in the degree's supplementary regulations.

	Minimum duration of study (academic sessions)		
Type of degree	Full-time	Part-time	
Ordinary/designated degree ¹	3	4	
Honours degree	4	5	
MA Honours language degree ²	5	7	
Integrated Masters degree	5	6	
BVMS, MBChB, BDS	5	N/A	

4. Recognition of Prior Learning

- 4.1 Credit may be awarded towards the completion of a degree programme for courses or examinations satisfactorily completed while following another programme at the University of Glasgow or at another institution or, where indicated in the degree's supplementary regulations, for other examinations satisfactorily completed. Such credit may permit a candidate entry to the second or subsequent year of the degree programme. The maximum limit for the award of such credit is, other than in exceptional circumstances and with the approval of the Clerk of Senate, 50% of the credits associated with the degree programme. Candidates must normally attend courses offered by the University of Glasgow during their final year of study.
- 4.2 Although appropriate prior learning may be recognised for the award of credit, all such credit is ungraded for the purposes of the University except that credit obtained in earlier study at the University of Glasgow may be graded. Guidance on the inclusion of ungraded APL credit in the application of degree regulations is set out in the University's APL policy.
- 4.3 Graded credit may be awarded for study undertaken at an institution other than the University of Glasgow where this is done while registered for a degree programme at the University of Glasgow.

5. Recognition of Prior Experiential Learning

Where indicated in the degree's supplementary regulations, a candidate may be awarded credit for prior experiential learning. The procedure for approval of such credit is set out in the University's APL policy.

¹ The minimum duration of study for the ordinary degrees of Bachelor of Technical Education and MA Religious & Philosophical Education with Secondary Teaching Qualification is four academic sessions.

² Exceptionally, where exemption is granted from the requirement to complete a Language Year Abroad, the minimum durations for the Honours degree may be applied.

6. Composition of Degree Programmes

- 6.1 Each degree programme shall be composed of courses, each of which is characterised by the academic level at which it is set and the number of credits which it conveys. The course level will be expressed as 1, 2, 3, H or M, these corresponding to levels 7 to 11 in the Scottish Credit and Qualifications Framework. Each course shall convey either 10, 15, 20, 30, 40, or 60 credits, or exceptionally a different number of credits where approved by the College.
- 6.2 In each academic session a full-time candidate will normally take courses conveying a total of 120 credits.
- 6.3 The structure of a degree programme, including the compulsory and optional courses of which it is composed, is shown in the degree's supplementary regulations and the programme specification.

7. Pre-requisites, Co-requisites and Excluded Combinations

- 7.1 Each course may have pre-requisite and/or co-requisite course(s). To be admitted to a course:
 - i) The candidate must normally have attained a grade D or better in each pre-requisite course. If the course follows a pre-requisite course in the same academic session, however, it shall be sufficient for the candidate to have attended the pre-requisite course.
 - ii) The candidate must either have attended, or be concurrently attending, each co-requisite course.
- 7.2 Where a candidate's curriculum includes courses which form an excluded combination, credits from only one of these courses may be counted towards the requirements for award of a degree or other qualification.

8. Approval of Curriculum

The curriculum of each candidate must be entered on *MyCampus* by that candidate at the start of each session. Once this has been done, the curriculum may not be altered outwith the 'add-drop' period except with the approval of an Adviser of Studies or the Advising Team.

9. Assessment

Assessment and re-assessment are governed by the Code of Assessment which is contained in the 'University Fees and General Information for Students' section of the *University Calendar*.

10. Progress

- 10.1 The progress of candidates shall be reviewed annually.
- 10.2 In the case of an Honours programme, and subject to further requirements contained in the degree's supplementary regulations, a full-time candidate who has achieved a grade point average³ of at least 9 (equivalent to grade D3) across all third year courses contributing to the programme will be permitted to progress from Junior Honours to Senior Honours⁴.
- 10.3 In the case of an Integrated Masters programme, and subject to further requirements contained in the degree's supplementary regulations, a full-time candidate who has achieved a grade point average of at least 12 (equivalent to grade C3) across all third year courses contributing to the programme will be permitted to progress to year 4; and a full-time candidate who has achieved a grade point average of at least 12 (equivalent to grade C3) across all fourth year courses contributing to the programme will be permitted to progress to year 5.
- 10.4 The requirements for a full-time candidate to progress, other than those covered in §10.2 and §10.3, are set out in the degree's supplementary regulations.
- 10.5 For a part-time candidate, the minimum achievement required to progress will be determined for and communicated to the candidate at the start of each session by the Chief Adviser for the degree on which the candidate is enrolled. A candidate who fails to meet this progress requirement must apply for re-admission to the Chief Adviser.

11. Administration of Progress

- 11.1 Decisions on progress shall be taken by the College Progress Committee or a sub-committee thereof. The committee shall have the power to exclude a candidate or to impose conditions regarding a candidate's future progress.
- 11.2 The College shall publish to all candidates the arrangements for identifying any candidate who does not comply with progress requirements. The College shall notify such candidates of the date of the meeting of the committee and the procedures to permit a candidate to make representations at or prior to the committee meeting.

³ Grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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. Grade point average is expressed to one decimal place (§16.34(a) of the Code of Assessment). In determining whether a candidate has achieved a required grade point average, no further rounding is permitted. For example, a candidate achieving a grade point average of 8.9 would not satisfy a requirement for a grade point average of 9.

⁴ Alternative requirements may be set for candidates undertaking their third year of study in another Higher Education Institution as part of a Study Abroad programme. Such requirements will be set by the Chief Adviser of Studies.

11.3 Appeal against decisions of the College Progress Committee may be made following the Codes of Procedure set out in the 'University Fees and General Information for Students' section of the *University Calendar*.

12. Award of a Certificate in Higher Education⁵

- 12.1 A candidate who has completed courses totalling at least 120 credits with a grade point average³ of at least 7 shall be eligible to receive a Certificate of Higher Education, unless the candidate proceeds immediately to a diploma or degree programme. This does not preclude the use in subsequent completion of a degree programme of credit counted towards the award of a Certificate of Higher Education.
- 12.2 The Certificate of Higher Education shall be awarded with Merit where the grade point average is at least 12, and with Distinction where the grade point average is at least 15.
- 12.3 Where the candidate has accumulated more than 120 credits, the credit counted in the calculation of the grade point average shall be reduced to 120 credits by discarding all of the credit for certain of the courses in such a way as to maximise the grade point average while meeting all other requirements of the regulations.

13. Award of a Diploma of Higher Education⁵

- 13.1 A candidate who has completed courses totalling at least 240 credits, of which at least 80 credits are for courses at level 2 or above, with a grade point average³ of at least 7, shall be eligible to receive a Diploma of Higher Education, unless the candidate proceeds immediately to a degree programme. This does not preclude the use in subsequent completion of a degree programme of credit counted towards the award of a Diploma of Higher Education.
- 13.2 The Diploma of Higher Education shall be awarded with Merit where the grade point average is at least 12, and with Distinction where the grade point average is at least 15.
- 13.3 Where the candidate has accumulated more than 240 credits, the credit counted in the calculation of the grade point average shall be reduced to 240 credits by discarding all of the credit for certain of the courses in such a way as to maximise the grade point average while meeting all other requirements of the regulations.

14. Award of an Ordinary/Designated Degree⁵

- 14.1 Subject to further requirements contained in the degree's supplementary regulations, the candidate, to be eligible for the award of an ordinary/designated degree, must have obtained at least 360 credits and achieved an overall grade point average³ of 9. Within these 360 credits:
 - a) at least 120 must be at level 2 or higher, and
 - b) at least 280 must be at grade D or better including at least 60 at level 3 or higher.
- 14.2 Subject to further requirements contained in the degree's supplementary regulations, the ordinary/designated degree shall be awarded with Merit where the grade point average is at least 12, and with Distinction where the grade point average is at least 15.
- 14.3 Where the candidate has accumulated more than 360 credits, the credit counted in the calculation of the grade point average shall be reduced to 360 credits by discarding all of the credit for certain of the courses in such a way as to maximise the grade point average while meeting all other requirements of the regulations.
- 14.4 The ordinary/designated degree may be awarded to candidates on Honours programmes who fail to meet the requirements of the Honours degree, including any progress requirements, provided that the requirements of §14.1 are met. The supplementary regulations for a degree programme shall specify any provision for candidates who have been assessed at level H to be reassessed at level 3.

15. Entry to an Honours or Integrated Masters Degree Programme⁵

- 15.1 In order to obtain entry to an Honours or Integrated Masters degree programme at the end of the second year of full-time study⁶, a candidate must:
 - a) achieve 240 credits at levels 1 and 2 with a grade point average³ of at least 9; at least 140 of these credits must be derived from the list of recognised courses for the degree; and
 - b) achieve a grade D or better in 200 credits; and
 - c) achieve a minimum of 40 credits at level 2 at a grade point average of 12 in the subject of the Honours programme ⁷ at the first attempt: and
 - d) meet any further requirements set out in the degree's supplementary regulations; and
 - e) meet any additional requirements set by the School or Schools in which the candidate is applying for entry to the Honours or Integrated Masters programme.

⁵ Where a programme has specific requirements in relation to the average aggregation score derived from Schedule B (§16.29 and §16.34(b) of the Code of Assessment), these shall be stated in the programme documentation.

⁶ This regulation only applies to degree programmes which select for entry to Honours at the end of second year.

⁷ For entry to a Joint Honours degree, this requirement applies to each Joint Honours Subject.

- 15.2 In order to obtain entry to an Integrated Masters degree programme, a candidate must normally, in addition to meeting the requirements in §15.1:
 - a) meet the requirements set out in the degree's supplementary regulations; and
 - b) meet any additional requirements set by the School or Schools in which the candidate is applying for entry to the Honours or Integrated Masters programme.
- 15.3 Exceptionally, a candidate who does not meet all of the requirements in either §15.1 or §15.2 may be offered admission to Honours, or an Integrated Masters programme, if the Head of School (or his or her nominee) judges that in other respects the candidate's previous performance offers a reasonable prospect of the candidate reaching the minimum standard required for the award to which admission is granted.
- 15.4 The College and School will provide all candidates with written information on the specific level of performance required to obtain entry to each Honours and Integrated Masters degree programme in the School. This information will be made available to candidates at the start of the session preceding that in which Honours study normally commences.
- 15.5 Admission to an Honours or Integrated Masters degree programme does not guarantee admission to a particular course. A candidate must apply for admission to a particular course in accordance with the instructions issued by the School. Admission to a particular course cannot be guaranteed even for a candidate who satisfies the minimum admission requirements. Where there are more applicants for a particular course than there are places available, selection of candidates will be based on criteria published in course documentation and/or School web pages.

16. Award of an Honours Degree

- 16.1 To be eligible for the award of an Honours degree, the candidate must have obtained at least 480⁸ credits, including at least 120 at level H, achieved a grade D3⁹ or better for a piece of independent work worth at least 20 credits¹⁰, and complied with the other requirements set out in the degree's supplementary regulations.
- 16.2 A Joint Honours degree is awarded following successful completion of an Honours programme in years three and four in which two subjects are studied in depth. At least 120 credits but no more than 140 credits are studied in each subject, and the subjects are normally equally weighted in the calculation of the final classification. ¹¹
- 16.3 A Principal with Subsidiary Honours degree is awarded following successful completion of an Honours programme in years three and four where 180 credits will normally be in one subject with 60 in another, the weighting of the programme's scheme of assessment reflecting the respective credit values of the two subjects.¹¹
- 16.4 A scheme of assessment may permit a candidate for Honours in a single subject to be assessed in not more than 25% of the total assessment for Honours from the scheme of assessment in one other subject.
- 16.5 Courses at level 3 or above which form a candidate's Honours programme must be counted towards the calculation of the candidate's Honours classification unless other provision is justified by good cause circumstances affecting the candidate.

This regulation applies where level 3 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.

17. Award of an Integrated Masters Degree

- 17.1 To be eligible for the award of an Integrated Masters degree, the candidate must have obtained at least 600 credits, including at least 120 credits at level M, achieved a grade D3⁹ or better for a piece of independent work worth at least 20 credits¹⁰, and complied with the other requirements set out in the degree's supplementary regulations.
- 17.2 Courses at level 3 or above which form a candidate's Integrated Masters programme must be counted towards the calculation of the candidate's Honours classification unless other provision is justified by good cause circumstances affecting the candidate.

This regulation applies where level 3 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.

⁸ For the award of the MA Honours degree in modern language subjects, the candidate must normally have obtained at least 600 credits.

⁹ Any penalty imposed for the late submission of the piece of independent work will be ignored when determining whether this requirement has been met.

¹⁰ The credits for the piece of independent work must contribute to the candidate's Honours classification.

¹¹ The overall total number of credits undertaken in the Honours programme for programmes involving Law will be less than 240, as further described in programme documentation.

18. Award of an MBChB, BVMS or BDS Degree

Eligibility for the award of an MBChB, BVMS or BDS degree is defined in the degree's supplementary regulations.

19. Award of Certificates for Graduates Studying at Undergraduate Level

A graduate of the University of Glasgow, or of another institution of tertiary education recognised for this purpose by the Senate, may be permitted by a School in consultation with the College Head of Academic Administration to enrol in a course, complete the assessment elements of the course, and receive certification of the outcome of the assessment.

20. Degree Programmes not Subject to these Regulations

College of Arts

Degree of Bachelor of Science in Medical Science (Medical Humanities)

College of Medical, Veterinary & Life Sciences

Degree of Bachelor of Science in Dental Science

Degree of Bachelor of Science in Medical Science

Degree of Bachelor of Science in Veterinary Science

All University of Glasgow degrees offered at the following institutions:

Christie's Education, London

Edinburgh Theological Seminary

The Glasgow School of Art

SRUC (Scotland's Rural College)

SUPPLEMENTARY UNDERGRADUATE REGULATIONS

DEGREES OF MASTER OF ENGINEERING 12, BACHELOR OF ENGINEERING AND BACHELOR OF SCIENCE IN ENGINEERING

RESOLUTION

The Degrees of Master of Engineering, Bachelor of Engineering, and Bachelor of Science in Engineering are governed by Resolutions of the University Court which came into effect on 1 September 2008. The provisions of Resolution No. 582 supporting the Generic Undergraduate Regulations are set out with those regulations. The provisions of Resolution No. 596, as subsequently amended, are as follows:

- 1. The Degrees of Master of Engineering (MEng) and Bachelor of Engineering (BEng) may be awarded by the Senate of the University of Glasgow in the College of Science & Engineering (the College) as Degrees with Honours in such designations as may be prescribed by Regulations. The Degree of Bachelor of Science in Engineering (BSc (Eng)) may be awarded by the Senate of the University in the College as a Degree with Honours in such designations as may be prescribed by Regulation, and as an Ordinary Degree.
- 2. The award of the Degree shall be governed by Resolution No. 582 "Generic Regulations for the award of Degrees gained by the successful completion of Undergraduate Programmes", which came into effect on and from 1 September 2008 together with such Supplementary Regulations as are contained in this Resolution No. 596 "Degrees of Bachelor of Engineering, Bachelor of Science in Engineering, and Master of Engineering". The Supplementary Regulations are set out in the Schedule of Regulations attached to this Resolution.
- 3. The early exit awards of Diploma of Higher Education in Engineering Studies (DipHE (Engineering Studies)) and Certificate of Higher Education in Engineering Studies (CertHE (Engineering Studies)) are also included in the Regulations.

REGULATIONS

1. Recognition of Prior Learning

- 1.1 Assessed prior experiential learning cannot be counted on these degrees.
- 1.2 Non-university examinations can permit entry with advanced standing. Such examinations give entry with advanced standing as follows: GCE Advanced level or SQA Advanced Higher in subjects and with grades as detailed in the University of Glasgow prospectus;
- 1.3 a) A candidate already registered on a programme at the University may not be admitted to the MEng programme later than the start of year 4.

¹² For the purposes of these regulations, a candidate admitted to a 4 year accelerated MEng programme will be considered as a direct entrant to year 2.

- b) A candidate from an institution other than the University of Glasgow may not be admitted to the BEng or MEng programmes later than the start of year 3 except in accordance with the terms of an articulation agreement.
- c) A candidate who enters with advanced standing may be required to attend and perform satisfactorily in special courses held prior to the commencement of the academic year.

2. Maximum Period of Study

There is no set maximum period of study. Candidates may continue their studies provided that they comply with the progress regulations set out at §3.

3. Progress

- 3.1 a) A candidate who fails to satisfy the requirements for progress on the degree for which they are registered as detailed in §3.2 - §3.4 will have their performance reviewed in terms of the progress regulations for other degrees; and may, in the light of this review, be transferred from one programme to another (e.g. from MEng to BEng).
 - b) At any stage, a candidate who fails to meet the progress regulations will be considered for the early exit awards of Diploma of Higher Education and Certificate of Higher Education.

Generic Undergraduate Regulations §10 and §11 apply with the following additional requirements.

3.2 BSc Ordinary

The minimum requirements for progress to a succeeding year of study are as follows.

After one session: the candidate must have obtained at least 80 credits, of which at least 60 must be at

grade D3 or better and achieved a grade point average ¹³ of at least 8.

After two sessions: the candidate must have obtained at least 160 credits, of which at least 120 must be at

grade D3 or better, and achieved a grade point average of at least 8.

After three sessions: the candidate must have obtained:

240 credits with a minimum grade point average of 9;

- 160 credits at grade D3 or better;
- 60 credits at level 2 or above.

3.3 BEng or BSc Honours

Every candidate must satisfy the requirements set out in §3.2 to progress to a succeeding year of the curriculum. In addition, a candidate must achieve:

- a) a grade point average of at least 9 across all courses;
- b) grade E3 or better in all courses;
- c) grade D3 or better in 100 credits.

3.4 MEng

In addition to meeting the requirements set out in §3.2 and §3.3, a candidate must achieve a grade point average of at least 14 across all courses in order to progress to year 4 or year 5 of the curriculum.

A candidate who fails to meet the progress requirement at the end of year 4 will be required to complete any missing components of the corresponding BEng or BSc Honours programme and will then be considered for the degree of BEng or BSc Honours in the normal way.

Any candidate who is transferred to a BEng or BSc Honours programme must complete any missing components within one further academic year of study.

4. Courses Available to Candidates

The available courses are detailed in the appropriate Programme Specification.

5. Programme Requirements for the Award of the Degrees

5.1 MEng

Generic Undergraduate Regulation §17 applies with the following additional requirements.

In order to graduate, a candidate must:

¹³ Grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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. Grade point average is expressed to one decimal place (§16.34(a) of the Code of Assessment). In determining whether a candidate has achieved a required grade point average, no further rounding is permitted. For example, a candidate achieving a grade point average of 8.9 would not satisfy a requirement for a grade point average of 9.

- a) obtain a grade D3 or better in the major individual project at the first attempt;
- b) achieve grade E3 or better in all courses in the final year;
- c) achieve grade D3 or better in 100 credits in the final year.

The calculation of the final classification is based on weightings from years 3, 4, and 5 of 20:40:40.

A candidate who fails to complete the curriculum of year 5, or whose overall performance falls below the standard required, will be required to complete any missing components of the corresponding BEng or BSc Honours programme and will then be considered for the degree of BEng or BSc Honours in the normal way.

5.2 BEng

Generic Undergraduate Regulation §16 applies with the following additional requirements:

In order to graduate, a candidate must:

- a) obtain a grade D3 or better in the major individual project at the first attempt;
- b) achieve grade E3 or better in all courses in the final year;
- c) achieve grade D3 or better in 100 credits in the final year.

The calculation of the final classification is based on weightings from years 3 and 4 of 30:70, except for Electronic and Software Engineering, for which the weighting is 35:65.

A candidate who does not meet these conditions will be considered for the corresponding award of BSc Honours.

5.3 BSc Honours

Generic Undergraduate Regulation §16 applies with no additional requirements. The calculation of the final classification is the same as for BEng.

5.4 BSc Ordinary (Engineering Studies)

Generic Undergraduate Regulation §14 applies with the following additional requirement:

At least 200 of the credits contributing to the award must correspond to courses in Engineering subjects.

5.5 Diploma of Higher Education (Engineering Studies)

Generic Undergraduate Regulation §13 applies with the following additional requirement:

At least 140 of the credits contributing to the award must correspond to courses in Engineering subjects.

5.6 Certificate of Higher Education (Engineering Studies)

Generic Undergraduate Regulation §12 applies with the following additional requirement:

At least 80 of the credits contributing to the award must correspond to courses in Engineering subjects.

6. List of Degree Programmes

Full details of the curriculum for each Degree Programme are provided in the corresponding Programme Specification. All programmes are offered as MEng, BEng and BSc Honours degrees. The curriculum for BSc Honours is identical to that for the corresponding BEng programme but the requirements for graduation are different (see §5.3).

Aeronautical Engineering¹⁴

Aerospace Systems¹⁴

Biomedical Engineering

Civil Engineering

Civil Engineering with Architecture 15

Electronics and Electrical Engineering

Electronic and Software Engineering

Electronics with Music

Mechanical Design Engineering¹⁴

Mechanical Engineering

Mechanical Engineering with Aeronautics

Mechatronics¹⁴

Product Design Engineering¹⁵

¹⁴ Also available as a BEng programme delivered jointly by University of Glasgow and Singapore Institute of Technology.

¹⁵ Delivered in conjunction with The Glasgow School of Art.

DEGREES OF BACHELOR OF SCIENCE AND MASTER IN SCIENCE

RESOLUTION

The Degrees of Bachelor of Science and Master in Science are governed by Resolutions of the University Court which came into effect on 1 September 2008 and their subsequent revisions. The provisions of Resolution No. 582 supporting the Generic Undergraduate Regulations are set out with those regulations. The provisions of Resolution No. 605 are as follows:

- The Degrees of Bachelor of Science (BSc) and Master in Science (MSci) may be awarded by the Senate of the University of Glasgow in the Colleges of Medical, Veterinary & Life Sciences, and Science & Engineering, as Degrees in such designations as may be prescribed by Regulations.
- 2. The award of the Degree shall be governed by Resolution No. 582 "Generic Regulations for the award of Degrees gained by the successful completion of Undergraduate Programmes", which came into effect on and from 1 September 2008 together with such Supplementary Regulations as are contained in this Resolution No. 605 "Degree of Bachelor of Science and Master in Science". The Supplementary Regulations are set out in the Schedule of Regulations attached to this Resolution.
- 3. The Degree of Bachelor of Science may be offered as a Degree in a designated subject or as a Degree with Honours in a Principal Subject; the Degree of Master in Science may be offered as a Degree in a Principal Subject or as a Degree in a Principal Subject with Work Placement. The early exit awards of Diploma of Higher Education (General Science) and Certificate of Higher Education (General Science) shall be governed by the Generic Undergraduate Regulations.

REGULATIONS

1. Recognition of Prior Learning

A candidate may qualify for exemption from level 1 courses up to a maximum of 120 credits by obtaining passes in appropriate subjects at specified grades in approved school examinations at SCQF level 7, under such conditions as the Senate may prescribe in each case. Such credit shall be awarded by the Chief Adviser of Studies.

2. Maximum Period of Study

The maximum period of study, including full and part-time attendance, is normally as follows:

For the award of a BSc designated degree - six sessions

For the award of a BSc Honours degree - six sessions

For the award of an MSci degree - seven sessions

3. Progress

The requirements referred to in Generic Undergraduate Regulations §10.1 and §15.2 are listed below:

3.1 Annual Review of Progress

Generic Undergraduate Regulations §10 and §11 apply with the following additional requirements:

Unless subject to specific requirements on entry or following consideration by the Progress Committee, the normal requirements to progress as a full-time student are:

After one session: The candidate must have obtained at least 80 credits; there must be a grade point

average ¹⁶ of at least 8 over the best 80 credits; at least 60 credits must be at grade D3

or better.

After two sessions: The candidate must have obtained at least 160 credits; there must be a grade point

average of at least 8 over the best 160 credits; at least 120 credits must be at grade D3 or better; the candidate must have fulfilled level 1 entry requirements that allow entry to

level 2 Science courses totalling 60 credits.

The candidate must have obtained a minimum of 80 credits during session two; there must be a grade point average of at least 8 across the best 80 credits within session two; the candidate must have achieved D3 or better in at least 60 credits within session

two.

After three sessions: The candidate must have obtained at least 240 credits; there must be a grade point

average of at least 9 over the best 240 credits; at least 160 credits must be at grade D3

or better; at least 60 credits must be at level 2 or above.

¹⁶ Grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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. Grade point average is expressed to one decimal place (§16.34(a) of the Code of Assessment). In determining whether a candidate has achieved a required grade point average, no further rounding is permitted. For example, a candidate achieving a grade point average of 8.9 would not satisfy a requirement for a grade point average of 9.

After four sessions: The candidate must be qualified for entry to BSc in a Designated Subject (see §3.2) or BSc Honours programme (see §3.3).

3.2 BSc in a Designated Subject

a) Admission Requirements

The following general requirements shall apply for admission to all level 3 courses:

- i) The candidate must have completed qualifying courses totalling at least 240 credits, with a grade point average of 9, unless admitted directly to level 3;
- ii) The candidate must have completed qualifying courses totalling at least 120 credits in Science subjects.

b) Progress Requirements

To continue studying for a second or subsequent year, the candidate must have achieved at least 40 credits at Level 3 with a grade of D3 in the current session.

3.3 BSc Honours Programme

a) Admission Requirements

Generic Undergraduate Regulation §15.1 shall apply with the following additional requirement.

 The candidate must have completed an additional 20 credits at level 2, bringing the total requirement for level 2 credits to 60.

b) Progress Requirements

Generic Undergraduate Regulation §10.2 shall apply.

The candidate must have met the requirements for the award of the Designated Degree (see §5.1).

3.4 MSci Programme

a) Admission Requirements

The following general requirements shall apply for admission to the third year of an MSci programme:

- The candidate must have completed qualifying courses totalling at least 240 credits, with a grade point average of at least 12;
- The candidate must have completed qualifying courses totalling at least 140 credits in Science with a grade point average of at least 12;
- iii) The candidate must have completed qualifying courses totalling at least 60 credits at level 2 or above in Science with a grade point average of at least 15.

b) Progress Requirements

Generic Undergraduate Regulation §10.3 shall apply.

3.5 Admission to Qualifying Courses

Subject to the approval of the Science Taught Programmes Committee, admission to any qualifying course may be restricted if the number of candidates wishing to enrol exceeds the number of places available. Where there are more applicants for a particular course than there are places available, selection of candidates shall be based on criteria published in the Programme or Course Handbook.

3.6 Appeals Against Non-Admission to Courses

A candidate who has been refused admission or re-admission to a course under the provisions of §3.5 may appeal in writing to the Chief Adviser of Studies in the relevant School or College, citing any special circumstances bearing on his or her case.

3.7 Transfers from Part-time to Full-time Study

A part-time candidate may apply to the Chief Adviser of Studies in the relevant School or College for transfer to full-time study. In considering such an application, the Chief Adviser shall take into account the candidate's progress so far.

4. Science Courses

Science subjects, and courses in these subjects, shall be as defined below. In addition, candidates may take courses in non-Science subjects, subject to the provisions of §3.2 - §3.4.

Recognised Science qualifying courses are currently as follows:

- 4.1 Courses contributing to the awards of BSc designated, BSc honours and MSci offered by the Schools of Chemistry, Computing Science, Geographical & Earth Sciences, Life Sciences, Mathematics & Statistics, Physics & Astronomy and Psychology.
- 4.2 Other courses contributing to the awards of BSc designated, BSc honours and MSci offered by the School of Humanities in Archaeology and the School of Engineering in Electronics & Electrical Engineering.

4.3 For the purposes of the Intercalated Degree of BSc combined with the Degree of MB ChB, BDS, or BVMS, the courses constituting the first two or three sessions, depending on the curriculum of the MB ChB, BDS, or BVMS are recognised as Science qualifying courses. Recognition of these courses will be subject to review in the event of substantial changes in the MB ChB, BDS, or BVMS curriculum.

4.4 Standard Curricula

- a) Each full-time candidate shall enrol for courses totalling not less than 100 credits in each session and normally no more than 120 credits. A candidate may take up to 150 credits in each session. Each part-time candidate shall enrol for courses totalling a maximum of 100 credits in each session.
- b) In year 1 full-time candidates must normally enrol for Science courses totalling at least 80 credits.

5. Programme Requirements for the Award of the Degree

5.1 Degree of Bachelor of Science in a Designated Subject

In addition to meeting the requirements of Generic Undergraduate Regulation §14, the candidate must satisfy the following:

- a) The 360 credits required must include:
 - i) at least 200 credits in Science; and
 - ii) at least 120 credits at level 2 or above in Science, with a grade point average ¹⁶ of at least 8, and with at least 60 of these credits at grade D or better.
- b) Where the Designated Subject is a single subject, the credits in (a) must include courses in that subject at level 3 or 3H or 3M, totalling at least 80 credits with a grade point average of at least 9.
- c) Where the Designated Subject is a combination of two subjects, the credits in (a) must include courses at level 3 or H or M totalling at least 40 credits with a grade point average of at least 9 in each of these subjects separately.
- d) Any special requirements of the Designated Subject specified by the School and approved by the Colleges of Medical, Veterinary & Life Sciences, and Science & Engineering.

The Degree of BSc in a Designated Subject shall be awarded with merit if the candidate has a grade point average of at least 12, or with distinction if the candidate has a grade point average of at least 15, both overall and in the Designated Subject (or Subjects in a combined degree) at level 3. To meet this requirement, the best 80 credits at level 3 may be used in the case of a Designated Degree in a single subject and the best 40 credits from each contributing subject in the case of a combined Designated Degree.

On the recommendation of the Head of School, the Degree of BSc in a designated subject may be awarded with Work Placement to a candidate who has successfully completed the work placement year of an MSci Degree and is qualified for the award of a BSc designated degree as set out above.

5.2 Degree of Bachelor of Science (BSc) with Honours and Degree of Master in Science

Each candidate must meet the requirements of Generic Undergraduate Regulations §16 and §17. Additionally, the Principal Subject for the Degree of BSc with Honours or the Degree of MSci shall be, as shown in Appendix 1, either:

- a) one of the single subjects shown as such in List 1(a) ('Single Honours'); or,
- b) one of the combinations of subjects shown as such in List 1(b) ('Combined Honours')

as approved by the Colleges and the Senate.

The calculation of the final BSc honours classification is normally based on a contribution of 50% from final year courses and 50% from third year courses where these courses are of equal credit rating. Exceptions to this are noted below with the third and final year percentage contributions given in brackets.

Archaeology (40:60), Chemistry, including Chemistry with Medicinal Chemistry and Chemistry with Forensic Studies (25:75), Computing Science including Software Engineering (40:60), Environmental Chemistry (30:70), Geographical & Earth Sciences (40:60), Life Sciences (0:100), Mathematics (40:60), Psychology (40:60).

The calculation of the final classification for the MSci award is normally based on weightings from years 3, 4 and 5 within the range 10:20:70 and 20:30:50. Exceptions to this are noted below.

Astronomy, Physics and Statistics are equally weighted across years 3, 4 and 5; Life Sciences (0:40:60), Mathematics (24:36:40).

5.3 MSci Exit Point

A candidate who fails to complete the final year of a five-year MSci programme may be awarded a BSc Honours Degree subject to the candidate's satisfying published School conditions for such an award, consistent with Generic Undergraduate Regulation §16. Such provision shall not be available to a candidate pursuing the MSci degrees with work or European placement.

5.3.1 Diploma of Higher Education (General Science)

Generic Undergraduate Regulation §12 shall apply with the following additional requirements.

A candidate may be awarded the Diploma in Higher Education (General Science) where at least 140 of the credits contributing to the award are in Science courses as defined in §4.1 and §4.2.

5.3.2 Certificate of Higher Education (General Science)

Generic Undergraduate Regulation §13 shall apply with the following additional requirements.

A candidate may be awarded the Certificate of Higher Education (General Science) where at least 80 of the credits are in Science courses as defined in §4.1 and §4.2.

Other Information on Awards

6.1 Study for the awards of BSc and MSci (listed in Appendix 1) at the University of Glasgow

Normally, the Principal Subject in the curriculum for the Degree of BSc with Honours or the Degree of MSci shall be the candidate's sole subject of study during the session immediately preceding his or her final examination, except by prior agreement of the Schools concerned. The study of the Principal Subject shall extend over not less than two sessions of full-time study: and where the Principal Subject itself is not studied over at least three sessions, the study of the Principal Subject shall be preceded by the study of appropriate cognate subjects.

A candidate who is exempted from courses on the basis of studies undertaken elsewhere (as described in Generic Undergraduate Regulation §4) shall attend courses in the University of Glasgow for at least one session for the Degree of BSc in a designated subject, or for at least two sessions for the Degree of BSc with Honours or the Degree of MSci. Each candidate for the Degree of BSc with Honours or the Degree of MSci must attend the University of Glasgow during the final year of his or her curriculum, except where that final year is an approved work placement year, and may be required by the Head of School concerned to attend the University of Glasgow during the final two years of his or her curriculum.

A candidate in Life Sciences may not enrol for study abroad or work placement in two consecutive sessions.

Appendix 1

List 1(a) Single Degree Subjects

Subject	BSc Designated Subject	BSc (Hons) Principal Subject	MSci Principal Subject
Anatomy	\checkmark	\checkmark	✓
Animal Biology	\checkmark		
Applied Mathematics	✓	\checkmark	\checkmark
Archaeological Studies	✓		
Archaeology		✓	
Biochemistry	✓	\checkmark	\checkmark
Biomolecular Sciences	✓		
Chemical Studies	\checkmark		
Chemistry	✓	\checkmark	\checkmark
Chemistry with Forensic Studies	✓	\checkmark	\checkmark
Chemistry with Medicinal Chemistry	✓	✓	\checkmark
Computing Science ¹⁷	✓	✓	\checkmark
Earth Science	✓	\checkmark	
Earth Studies	✓		
Electronic & Software Engineering	✓	\checkmark	
Environmental Biogeochemistry	✓	✓	
Environmental Chemistry	\checkmark	\checkmark	\checkmark
Environmental Chemistry & Geography	\checkmark	\checkmark	
Genetics	\checkmark	\checkmark	\checkmark
Geography	✓	\checkmark	
Human Biology		\checkmark	\checkmark
Human Biology & Nutrition	\checkmark		
Human Life Sciences	\checkmark		
Immunology	\checkmark	\checkmark	\checkmark
Infection Biology	\checkmark		
Informatics	\checkmark	✓	\checkmark
Marine and Freshwater Biology	\checkmark	\checkmark	\checkmark
Mathematics	\checkmark	\checkmark	\checkmark
Mathematics & Statistics	✓		
Microbiology	✓	✓	✓

¹⁷ Also available as a BSc programme delivered jointly by University of Glasgow and Singapore Institute of Technology.

Subject	BSc Designated Subject	BSc (Hons) Principal Subject	MSci Principal Subject
Mobile Software Engineering	✓	\checkmark	\checkmark
Molecular & Cellular Biology	\checkmark	\checkmark	✓
Molecular & Cellular Biology (with Biotechnology)	✓	✓	\checkmark
Molecular & Cellular Biology (with Plant Science)	\checkmark	✓	\checkmark
Neuroscience	✓	✓	✓
	✓	· ✓	✓
Parasitology	, ✓	, ✓	, ✓
Pharmacology	∨ ✓	v ✓	∨ ✓
Physics			
Physics with Astrophysics	√	√	√
Physiology	√	√	√
Physiology & Sports Science	✓	✓	\checkmark
Physiology, Sports Science & Nutrition		\checkmark	\checkmark
Psychological Studies	\checkmark		
Psychology		\checkmark	
Pure Mathematics	\checkmark	\checkmark	\checkmark
Software Engineering	\checkmark	✓	\checkmark
Sports Science	✓		
Statistics ¹⁸	√ ·	✓	✓
Statistics Statistics with Work Placement	•	•	· ✓
		/	
Theoretical Physics		√	√
Virology	√	√	√
Zoology	✓	\checkmark	\checkmark
List 1(b) Combined Degree Subjects			
Subject Combination	BSc Designated	BSc (Hons)	MSci Principal
Gubjeet Gornbination	Subject	Principal Subject	
		-	Gabjoot
Accounting and Statistics	✓	✓	
Accounting and Applied Mathematics	\checkmark	\checkmark	
Accounting and Mathematics	\checkmark	\checkmark	
Accounting and Pure Mathematics	✓	\checkmark	
Applied Mathematics and Business and		\checkmark	
Management			
Applied Mathematics and Economics		✓	
Applied Mathematics and Physics	✓	✓	✓
Applied Mathematics and Statistics	✓	✓	✓
Archaeology and Earth Science	✓	✓	
Archaeology and Cartin Science Archaeology and Geography	✓	✓	
	· ✓	· ✓	✓
Astronomy and Mathematics	↓	√	•
Astronomy and Physics			V
Chemistry and Mathematics	√	√	V
Chemistry and Physics	✓	√	✓
Computing Science and Economics		✓	
Computing Science and Geography	✓	✓	
Computing Science and Physics	\checkmark	\checkmark	\checkmark
Computing Science and Physiology	\checkmark	\checkmark	
Computing Science and Psychology		\checkmark	
Computing Science and Statistics	\checkmark	\checkmark	
Finance and Statistics	✓	✓	
Finance and Applied Mathematics	\checkmark	✓	
Finance and Mathematics	✓	✓	
Finance and Pure Mathematics	✓	✓	
	·	, ✓	
Geography and Mathematics	v	∨ ✓	
Geography and Statistics	v		
Mathematics and Business & Management		√	
Mathematics and Economics		√	
Mathematics and Philosophy		√	
Mathematics and Physics	\checkmark	√	\checkmark
Mathematics and Psychology		✓	

 $^{\rm 18}$ Also available as a Double degree arrangement with the University of Bologna.

SciEng.16 (UG) Degree of BEng

Subject Combination	BSc Designated Subject	BSc (Hons) Principal Subject	MSci Principal Subject
Mathematics and Statistics	✓	✓	✓
Psychological Studies and Computing Science		✓	
Psychological Studies and Mathematics		✓	
Psychological Studies and Statistics		✓	
Psychology and Neuroscience		\checkmark	\checkmark
Psychology and Statistics		\checkmark	
Pure Mathematics and Business & Management	\checkmark	\checkmark	
Pure Mathematics and Economics	\checkmark	\checkmark	
Pure Mathematics and Philosophy	\checkmark	✓	
Pure Mathematics and Physics	\checkmark	\checkmark	
Pure Mathematics and Psychology	\checkmark	\checkmark	
Pure Mathematics and Statistics	\checkmark	\checkmark	
Statistical and Mathematical Studies	\checkmark		
Statistics and Business & Management		\checkmark	
Statistics and Economics		✓	✓

DEGREE OF BACHELOR OF ENGINEERING

(Joint Educational Programme with the University of Electronic Science and Technology of China (UESTC). Candidates may also be awarded the degree of Bachelor of Engineering by UESTC on satisfying the requirements stipulated by UESTC.)

RESOLUTION

The Degree of Bachelor of Engineering is governed by Resolutions of the University Court which came into effect on 1 September 2008. The provisions of Resolution No. 582 supporting the Generic Undergraduate Regulations are set out with those Regulations. The provisions of Resolution No. 647, which at the time of publication were in draft form, are as follows:

- 1. The Degree of Bachelor of Engineering (BEng) may be awarded by the Senate of the University of Glasgow in the College of Science & Engineering (the College) as a Degree with Honours in such designations as may be prescribed by Regulations.
- 2. The award of the Degree shall be governed by Resolution No. 582 "Generic Regulations for the award of Degrees gained by the successful completion of Undergraduate Programmes", which came into effect on 1 September 2008 together with such Supplementary Regulations as are contained in this Resolution No. 647 "Degree of Bachelor of Engineering". The Supplementary Regulations are set out in the Schedule of Regulations attached to this Resolution.
- 3. Provision for the following early exit awards is also included in the Regulations: the Degree of Bachelor of Science in Engineering (BSc (Eng)), which may be awarded as a Degree with Honours and as an Ordinary Degree; Diploma of Higher Education in Engineering Studies (DipHE(Engineering Studies)); and Certificate of Higher Education in Engineering Studies (CertHE(Engineering Studies)).
- 4. It shall be the duty of the Joint Management Board of the University of Glasgow and the University of Electronic Science and Technology of China (UESTC) to consider annually the curriculum for the Degree.
- 5. It shall be competent for the University Court on the recommendation of the Senate to recognise and appoint as associated teachers of the University for the purposes of the Degree such lecturers and other officers of UESTC having responsibilities for courses qualifying for the Degree as may be proposed for such recognition by the Joint Management Board.
- 6. The University Court may appoint as an examiner for the Degree, but not as an external examiner, any associate teacher recognised in accordance with §5.
- 7. The examiners shall be drawn from the Professors, Readers and Lecturers in the University of Glasgow together with such examiners as are appointed in pursuance of §6 and such external examiners as may be appointed by the University Court, on the recommendation of the Joint Management Board.
- It shall be competent for the Senate on the recommendation of the Joint Management Board to constitute a
 Board of Examiners, which shall have power to receive and to assess reports from individual examiners for
 transmission to the Senate.

REGULATIONS

1. Recognition of Prior Learning

Up to 40 credits of prior learning may be permitted at the discretion of the Programme Director.

Degree of BEng SciEng.17 (UG)

2. Maximum Period of Study

The maximum period of study is normally six sessions. Part-time study is not permitted.

3. Progress

The minimum requirements for progress to the next year of study are:

- a) grade E3 or better in all courses
- b) no more than 24 credits below grade D3
- c) pass in all English for Engineering courses in the curriculum for that year after one reassessment.

In addition, progress from year 2 to year 3 requires attainment of a minimum score of 6.0 in all IELTS sub-tests.

4. Courses Available to Candidates

The available courses are listed in the Programme Specification.

5. Programme Requirements for the Award of the Degree

5.1 Bachelor of Engineering (BEng) with Honours

Generic Undergraduate Regulation §16 applies with the following additional requirements:

- a) grade D3 or better in all courses in all years of the curriculum;
- b) grade D3 or better in the major individual project at the first attempt;
- c) grade E3 or better in all courses in the final year at the first attempt;
- d) no more than 20 credits below grade D3 in the final year at the first attempt:
- e) pass in all English for Engineering courses;
- f) attainment of a minimum score of 6.0 in all IELTS sub-tests.

The calculation of the final classification is based on weightings from years 3 and 4 of 50:50.

5.2 Bachelor of Science (BSc) with Honours

Generic Undergraduate Regulation §16 applies with the following additional requirements:

- a) grade D3 or better in all courses in all years of the curriculum:
- b) pass in all English for Engineering courses;
- c) attainment of a minimum score of 6.0 in all IELTS sub-tests.

The calculation of the final classification is based on weightings from years 3 and 4 of 50:50.

5.3 Bachelor of Science (BSc) Ordinary (Engineering Studies)

Generic Undergraduate Regulation §14 applies with the following additional requirement:

a) attainment of a minimum score of 6.0 in all IELTS sub-tests.

5.4 Diploma of Higher Education (Engineering Studies)

Generic Undergraduate Regulation §13 applies with the following additional requirement:

a) attainment of a minimum score of 6.0 in all IELTS sub-tests.

5.5 Certificate of Higher Education (Engineering Studies)

Generic Undergraduate Regulation §12 applies with the following additional requirement:

a) attainment of a minimum score of 6.0 in all IELTS sub-tests.

6. List of Programmes to which these Regulations Apply

BEng Electronics and Electrical Engineering (Joint Educational Programme with UESTC)

BEng Electronics and Electrical Engineering with Communications (Joint Educational Programme with UESTC)

7. Variations to Assessment and Reassessment in the Code of Assessment

Generic Undergraduate Regulation §9 applies with the following variations:

- a) Reassessment to meet requirement §5.1(a) and §5.2(a) for the award of the BEng and BSc (Hons) degrees is not subject to the usual limits of the Provision for Reassessment in the Code of Assessment, but only to the maximum period of study and the standard provision for reassessments at UESTC.
- b) The assessment of English for Engineering courses is exempt from Schedule A of the Code of Assessment and is assessed on a two point scale Pass/No Pass.
- c) Students who achieve No Pass in courses graded Pass/No Pass have not met the threshold grade and are therefore entitled to reassessment under the normal provision.

RESEARCH STUDENTS

Ordinance 350 (General No 12), which came into force in October 1961, governs the admission of Research Students and the appointment of Research Fellows. The following are the provisions of that Ordinance relevant to the admission of Research Students:

- II. The Senate, with the approval of the University Court, shall have power to make regulations under which any person who has given satisfactory evidence of his or her fitness to engage in special study or research may be admitted to the University as a Research Student.
- IV. Research Students shall have access to and the use of the University laboratories, libraries and museums, subject to the provisions of any Ordinances and under such other conditions as the University Court, after consultation with the Senate, may determine.

REGULATIONS

The following are the Regulations made under Section II:

- 1. Applications for admission to the status of Research Student must be made to the relevant College Graduate School in accordance with published procedures.
- 2. Each application for admission will be referred to the appropriate College Graduate School for evaluation. Applications will be assessed by at least one member of the School or Research Institute within which the proposed line of study or research falls. The College Graduate School shall accept no applicant who has not satisfied them by examination or otherwise: (a) that his or her proposed line of study or research is a fit and proper one, and that he or she is qualified to prosecute it; (b) that he or she is of good character; and (c) that he or she proposes to prosecute his or her studies or research during a period to be approved by the Senate.
- 3. Subject to the regulations of the Senate, the College or the Committee shall provide for the supervision of the work of each applicant admitted by the Senate to the status of Research Student, and shall report to the College Graduate School at least once a year as to his or her progress and conduct. The College may suspend or exclude from any course any Research Student whose conduct or progress is unsatisfactory.
- 4. Every Research Student must register each year, paying the ordinary Registration Fee.
- 5. A Research Student may be required at the discretion of the Head of the School or Research Institute concerned to report his or her attendance to the supervisor of his or her research, or to the Clerk of Senate, at least once a week in term-time, except during periods when, with the permission of the *Senate*, he or she is prosecuting special study or research elsewhere than in the University or in a College affiliated thereto.
- 6. A Research Student may be required by his or her supervisor(s) to attend classes in the University related to his or her research topic, and may also be required by his or her supervisor(s) to perform the class exercises and take class examinations; but he or she shall not be eligible for prizes in classes so attended and his or her attendance shall not qualify for graduation.
- All papers arising out of work done in a School or Research Institute shall be submitted before publication to the Dean of Graduate Studies, and in all such papers, when they are published, a due recognition of the University shall be inserted.

GENERIC REGULATIONS FOR POSTGRADUATE CERTIFICATES AND DIPLOMAS - COLLEGE OF SCIENCE & ENGINEERING

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 awards listed in §9.
- 1.2 These regulations apply also to the awards listed in §10 subject to alternative requirements described in the relevant Programme Document. The requirements for these awards may vary only in respect of duration of study (§3), requirements for the award (§7) to reflect the requirements of professional or statutory bodies, or progress to a Masters degree (§8).

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 Certificate or Diploma is one semester and one academic session respectively. The maximum period for full-time study is 12 calendar months of registered study. The maximum period within which all candidates must complete the programme is four years from the date of initial registration.

4. Programme Components

- 4.1 In order to qualify for an award in respect of the programmes specified in §9 §10, a candidate must complete minimum credits ¹⁹ as follows:
 - a) For the award of a Postgraduate Diploma: 120 credits of taught courses.
 - b) 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.

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 Regulations for assessment 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*.
- 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 §7²⁰ and §8 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. Requirements for the Award of a Postgraduate Diploma or Postgraduate Certificate and Rules for Award of Distinction and Merit²¹

- 7.1 The requirement for the award of a Postgraduate Diploma is a grade point average²² of 9 (equivalent to D3) or above in 120 credits, with not less than 80 of these credits at grade D or above.
- 7.2 The requirement for the award of a Postgraduate Certificate is a grade point average of 9 (equivalent to D3) or above in 60 credits, with not less than 40 of these credits at grade D or above.
- 7.3 A candidate who has achieved a grade point average of 15 (equivalent to B3) at the first sitting will be eligible for the award with Merit. Where the grade point average falls within the range 14.1 and 14.9 the Board of Examiners shall have discretion to make the award with Merit.
- 7.4 A candidate who has achieved a grade point average of 18 (equivalent to A5) at the first sitting will be eligible for the award with Distinction. Where the grade point average falls within the range 17.1 to 17.9 the Board of Examiners shall have the discretion to make the award with Distinction.

¹⁹ 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: 90 credits for a Postgraduate Diploma, 40 credits for a Postgraduate Certificate.

²⁰ Except for §7.2, §7.3 and §7.4 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.

²¹ Where there are specific requirements in relation to aggregation scores or the average aggregation score derived from Schedule B (§16.29 and §16.34(b) of the Code of Assessment) these shall be stated in the programme documentation.

²² The grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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 award and progress, no further rounding is permitted. For example, a grade point average of 8.9 would not satisfy a requirement for a grade point average of 9.

8. Progress to a Masters Degree²¹

A candidate may be permitted to progress to study for a Masters degree if a Masters programme in the same subject is available and only if the candidate has obtained a grade point average 22 of 12 (equivalent to C3) in the taught courses described in §4 with at least 75% of these credits at grade D or above 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.

9. Awards to which these Regulations Apply

The following awards are governed by the above regulations:

College of Science & Engineering

Certificate in Computing Science

Certificate in Geoinformation Technology

Certificate in Geospatial & Mapping Sciences

Certificate in Human Geography

Certificate in Information Technology

Diploma in Computing Science

Diploma in Computing Science (Research)

Diploma in Geoinformation Technology & Cartography

Diploma in Geospatial & Mapping Sciences

Diploma in Human Geography

Diploma in Information Retrieval Systems

Diploma in Information Security

Diploma in Information Technology

10. Awards which Include Variations to Clauses 3, 7 and 8

The following awards are governed substantially by the above regulations. The requirements for these awards may vary in respect of duration of study (§3), requirements for the award (§7), or progress to a Masters degree (§8) and such variation will be described in the Programme Document.

College of Science & Engineering

Diploma in Aquatic System Science

Diploma in Coastal System Management

Diploma in Freshwater System Science

Diploma in Marine System Science

Diploma in Mathematics

Diploma in Mobile & Ubiquitous Systems

Diploma in Software Engineering

GENERIC REGULATIONS FOR MASTERS DEGREES

GENERIC REGULATIONS FOR TAUGHT MASTERS DEGREES - 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:

- The Masters Degrees listed in clauses 11 and 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 clauses 1 to 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.²³

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 credits²⁴ as follows:
 - i) For the award of a Masters degree: 180 credits, which includes both taught courses and a 60 credit (or more) dissertation or other substantial independent work.
 - 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 dissertation or other 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 Regulations for assessment 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*.
- 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 §10²⁵ 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: Progress²⁶

7.1 A candidate will be permitted to progress to preparation of the dissertation, or other substantial independent work

²³ 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.

²⁴ 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.

²⁵ 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.

²⁶ Where a programme has specific requirements in relation to aggregation scores or the average aggregation score derived from Schedule B (§16.29 and §16.34(b) of the Code of Assessment) these shall be stated in the programme documentation.

required by the degree, only if he or she has obtained a grade point average ²⁷ 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 dissertation or other substantial independent work where it is judged ²⁸ 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 reassessment.

- 7.2 A candidate who has commenced study midway through an academic session will be permitted to progress to preparation of the dissertation, or other substantial independent work, only if he or she has 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 dissertation or other substantial independent work where it is judged²⁸ 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 reassessment.
- 7.3 A candidate may be required to commence work on the dissertation or other substantial 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 the grade point average for the taught courses, after all opportunities at assessment have been exhausted, is less than 12, the candidate will not be eligible for the award of the Masters degree, and the following will apply:
 - If the dissertation or other substantial independent work has been submitted, it will be marked and a
 grade published.
 - If the dissertation or other 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 dissertation or other 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 Dissertation

- 8.1 Where a candidate requires a higher grade in the dissertation or other substantial independent work to satisfy the requirements set out in §9.1, reassessment of that dissertation or other 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 dissertation or substantial independent work or to undertake further practical work.
- 8.2 Where at the time of publication of the grade achieved on the dissertation or other substantial work a candidate has exhausted all assessment opportunities on the taught courses referred to in §4 and his or her grade point average²⁷ is less than 12, a resubmission of the dissertation or other substantial 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 Merit²⁶

- 9.1 A candidate will be eligible for the award of the degree on obtaining a grade point average²⁷ 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 dissertation or other substantial independent work.
- 9.2 A candidate who has achieved at the first attempt a grade point average of 15 (equivalent to B3) or above for the taught courses and grade B3 or above for the dissertation or other substantial independent work will be eligible for the award with Merit. Where the grade point average for the taught courses falls within the range 14.1 and 14.9 the Board of Examiners shall have discretion to make the award with Merit. No discretion can be applied in relation to the grade required for the dissertation or other substantial independent work.
- 9.3 A candidate who has achieved at the first attempt a grade point average of 18 (equivalent to A5) or above for the taught courses and grade A5 or above for the dissertation or other substantial independent work will be eligible for

²⁷ The grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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.

²⁸ 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.

the award with Distinction. Where the grade point average for the taught courses falls within the range 17.1 to 17.9 the Board of Examiners shall have the discretion to make the award with Distinction. No discretion can be applied in relation to the grade required for the dissertation or other substantial independent work.

10. Requirements for the Award of a Postgraduate Diploma or Postgraduate Certificate and Rules for Award of Distinction and Merit²⁶

- 10.1 The requirement for the award of a Postgraduate Diploma is a grade point average²⁷ 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 These awards may be granted with Merit or Distinction according to the criteria specified in §9.2 and §9.3.

11. Degrees²⁹ to which these Regulations Apply

The following degrees are governed by the above regulations:

College of Science & Engineering

Master of Research (MRes) Advanced Statistics

Master of Research (MRes) Human Geography

Master of Research (MRes) Integrative Sensing & Measurement

Master of Research (MRes) Mathematical Sciences

Master of Science (MSc) Aeronautical Engineering

Master of Science (MSc) Aerospace Engineering & Management

Master of Science (MSc) Aerospace Systems

Master of Science (MSc) Applied Mathematics

Master of Science (MSc) Applied Population & Statistical Mapping

Master of Science (MSc) Aquatic System Science

Master of Science (MSc) Astrophysics

Master of Science (MSc) Biomedical Engineering

Master of Science (MSc) Biostatistics

Master of Science (MSc) Chemical Engineering & Management

Master of Science (MSc) Chemistry

Master of Science (MSc) Chemistry with Medicinal Chemistry

Master of Science (MSc) Civil Engineering

Master of Science (MSc) Civil Engineering & Management

Master of Science (MSc) Coastal System Management

Master of Science (MSc) Computer Systems Engineering

Master of Science (MSc) Computing Science

Master of Science (MSc) Data Analytics

Master of Science (MSc) Data Science

Master of Science (MSc) Electronics & Electrical Engineering

Master of Science (MSc) Electronics & Electrical Engineering and Management

Master of Science (MSc) Electronics Design

Master of Science (MSc) Embedded Electronic Systems

Master of Science (MSc) Environmental Statistics

Master of Science (MSc) Freshwater System Science

Master of Science (MSc) Geoinformation Technology & Cartography

Master of Science (MSc) Geomatics & Management

Master of Science (MSc) Geospatial & Mapping Sciences

Master of Science (MSc) Information Security

Master of Science (MSc) Information Technology

Master of Science (MSc) Marine System Science

Master of Science (MSc) Mathematics

Master of Science (MSc) Mechanical Engineering

Master of Science (MSc) Mechanical Engineering & Management

Master of Science (MSc) Mechanical Engineering with Desalination

Master of Science (MSc) Mechatronics

²⁹ Each of these degree programmes also offer awards of Postgraduate Diploma and Postgraduate Certificate with the same title (see §10).

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Master of Science (MSc) Nanoscience & Nanotechnology

Master of Science (MSc) Physics: Advanced Materials

Master of Science (MSc) Physics: Energy & Environment

Master of Science (MSc) Physics: Global Security

Master of Science (MSc) Physics: Life Sciences

Master of Science (MSc) Physics: Nuclear Technology

Master of Science (MSc) Psychological Science (conversion)

Master of Science (MSc) Research Methods of Psychological Science

Master of Science (MSc) Signal Processing, Electronic & Computational Techniques for Researching and Understanding Music

Master of Science (MSc) Software Development

Master of Science (MSc) Software Engineering

Master of Science (MSc) Space Systems Engineering

Master of Science (MSc) Statistics

Master of Science (MSc) Structural Engineering³⁰

Master of Science (MSc) Sustainable Energy

Master of Science (MSc) Sustainable Water Resources

Master of Science (MSc) Telecommunication Electronics

Master of Science (MSc) Theoretical Physics

12. Degrees which include Variations to Regulations 3 and 7

None recognised by Senate for session 2016-17.

DEGREE OF MASTER OF PHILOSOPHY

RESOLUTION

The Degree of Master of Philosophy is governed by Resolution No. 575 of the University Court which came into effect on 1 September 2008, as subsequently amended, with provision that:

- The Degree of Master of Philosophy (MPhil) may be awarded by the University of Glasgow in each of the Colleges.
- 2. a) A candidate for the Degree may undertake research in accordance with the provisions of Schedule B or Schedule C³¹ as set out in the Regulations.³² Such study shall be prosecuted in the University of Glasgow or The Glasgow School of Art or in another institution recognised for the purposes of study and research.
 - b) Colleges and Graduate Schools may allow the candidate's research to be conducted in an institution external to the University of Glasgow. The choice of such an institution will be determined ad hoc and only where there exists clear alignment of the candidate's proposed research with the aims and objectives of the institution proposed, and where the institution can demonstrate ability to provide an appropriate level of supervision of the candidate. A full-time member of staff of a recognised institution may be nominated to Senate either as a supervisor or as an internal examiner although such an individual may not be nominated as an examiner if he or she has previously supervised the candidate's work. In cases where an employee of the institution acts as supervisor or internal examiner, a member of staff from an appropriate subject area in the University will also be appointed.
- 3. Every candidate for the Degree, before being admitted to a programme of research qualifying therefore, (a) must have obtained a Degree in any Institution of Higher Education specially recognised for this purpose by the University Court on the recommendation of the Senate, provided always that a diploma or a certificate recognised in like manner as equivalent to a Degree may be accepted in place of a Degree and (b) must have satisfied the Senate of his or her fitness to undertake advanced study.
- 4. A candidate who is a full-time student shall follow a programme of study by research in the University or another Institution recognised for the purpose:
 - a) in the College of Arts, the College of Medical, Veterinary & Life Sciences and the College of Social Sciences, for 12 months, and
 - b) in the College of Science & Engineering, for 24 months.

The period of study for a candidate who is a part-time student shall be at least one year longer than that prescribed for full-time students.

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³⁰ Subject to Senate approval.

³¹ Schedule C is published in The Glasgow School of Art section of the *University Calendar*.

³² Schedule A, pertaining to the award of the Degree following a prescribed course of study, has been deleted from the Regulations.

Degree of MPhil SciEng.25 (PG)

These provisions notwithstanding, the Colleges may on special cause shown extend the prescribed period of study for any full-time candidate by not more than one year.

- The College shall designate a Professor or Lecturer in the University to supervise the study of each candidate.The supervisor shall report at appropriate intervals as determined by the College on the progress of the candidate.
- 6. On the conclusion of his or her period of study each candidate shall present for such written examination as may be prescribed by the Senate and may be required to submit a dissertation. The candidate may also be required to undergo oral and/or practical examination.
- 7. The examiners for the Degree shall be such Professors and Lecturers in the University as the Senate shall designate and such additional examiners as the University Court, on the recommendation of the Senate shall appoint.
- 8. The Degree shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth and shall not be conferred as an Honorary degree except on the conditions contained in Ordinance of the University Court No. 109, Glasgow No. 28.
- 9. The regulations for the Degree shall be as stated in the Schedules hereto.

Schedule B - Master of Philosophy by Research

- 1. Admission to study for the Degree will normally be granted from the beginning of the academic year.
- 2. The normal standard of admission will be that of a Degree with First or Upper Second Class Honours but another qualification, being a qualification approved by the University Court as provided in section 2 of the Resolution, may be accepted by the College as being suitable for the programme of research which it is proposed that the applicant should follow.
- 3. The minimum period of prescribed research for the Degree shall be:
 - a) in the College of Arts, the College of Medical Veterinary and Life Sciences and the College of Social Sciences, one year's full-time study or two years' part-time study, and
 - b) in the College of Science & Engineering two years' full-time study or four years' part-time study.

The candidate shall prosecute this research under the supervision of a member of staff from the appropriate subject area appointed by the College Higher Degrees Committee (or equivalent) on the recommendation of the Head of School. The Higher Degrees Committee shall have power for special reasons to permit a candidate to pursue study elsewhere for part of the prescribed period. The College Graduate School shall organise research training course(s) as appropriate for each research student.

A part-time candidate, and in the College of Science & Engineering a full-time candidate, shall be subject to the College requirements for progress prior to being permitted to progress to a subsequent year of study.

- 4. a) On completion of the research the candidate shall present a thesis or a portfolio of work. The thesis shall normally be 30,000 to 40,000 words in length, embodying the results of the work for examination for the degree. The composition of the portfolio will be defined and agreed with the supervisor at the outset. The candidate must expect to attend an oral examination unless specified otherwise by the Graduate School.
 - b) Subject to §4(a), the thesis and portfolio must normally be written and defended in English. Exceptionally, however, in the College of Arts at the time of application the College Higher Degrees Committee may approve arrangements whereby the thesis may be written and defended in a language other than English, such as Gaelic. Approval will normally be given only where the use of a language other than English is deemed appropriate by the relevant School, and the Higher Degrees Committee, and where the School and the Higher Degrees Committee are satisfied that appropriate arrangements can be made for supervision and examination.
- 5. A candidate must submit the thesis or portfolio for examination within six months of the conclusion of the statutory period of full-time or part-time study specified by regulation. The College will specify the date of commencement of part-time study. In exceptional circumstances, and on submission of a stated case, an extension of six months may be approved by the College Higher Degrees Committee.
- 6. A candidate must submit two bound typewritten or printed copies of the thesis or portfolio accompanied by a declaration that the research has been carried out and the submission composed by the candidate, and that the submission has not been accepted in fulfilment of the requirements of any other degree or professional qualification. The submitted copies of the thesis or portfolio may be soft-bound but otherwise should generally conform to the British Standard Institution's *Recommendations for the presentation of theses* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.
- 7. If the Examiners consider that the thesis or portfolio, has not achieved the standard required for the award of the Degree, the candidate may be permitted to revise the thesis or portfolio and resubmit it, on one occasion only, under such conditions as the Examiners may prescribe in each particular case. Normally, resubmission should be no later than six months after the date of the meeting of the Board of Examiners.

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8. If approved for the degree, one hard-bound copy of the thesis and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

In addition to these regulations, each student must also comply with the detailed requirements for research degrees published by the relevant Graduate School.

DEGREE OF MASTER OF RESEARCH

RESOLUTION

The Degree of Master of Research is governed by Resolution No. 557 of the University Court which came into effect on 1 September 2006, as subsequently amended, with provision that:

- 1. The Degree of Master of Research (MRes) may be awarded by the University of Glasgow in the Colleges of Arts, Medical, Veterinary & Life Sciences and Science & Engineering.
- 2. The Senate may make regulations, which are subject to the approval of the University Court, governing the award of the Degree these are set out in the section entitled 'Regulations'.
- 3. The examiners for the Degree shall be such Professors and Lecturers in the University of Glasgow and, if appropriate, a full-time member of staff of a recognised institution as the Senate shall designate, together with such External Examiners as the University Court, on the recommendation of the Senate, shall appoint.
- The early exit awards of Postgraduate Diploma of Research and Postgraduate Certificate are included in the Regulations.

REGULATIONS

- Before being admitted to study qualifying for the Degree of Master of Research, every candidate must satisfy the following conditions, namely:
 - a) i) he or she must have obtained a Degree in a University or College recognised for this purpose by the University Court on the recommendation of the Senate, or
 - ii) he or she must have obtained such other qualifications as may be recognised for this purpose by the University Court on the recommendation of the Senate; and
 - b) he or she must have fulfilled such other entrance requirements as may be specified for a particular course of study / research;
 - c) he or she must have satisfied the Senate of his or her fitness to undertake advanced research/study.
- Candidates may be permitted to pursue a course of prescribed study / research on either a full-time or a part-time basis. The minimum period of study / research for each candidate shall be determined by the appropriate College at the time of his or her admission, according to his or her qualifications and other relevant factors and shall normally be
 - a) for full-time candidates, either 12 months or two academic years of full-time study / research;
 - b) for part-time candidates, either two or three academic years of part time study/research.
- The Senate may for special reasons permit a candidate, whether full-time or part-time, to prosecute part of his or her studies elsewhere, in another institution recognised for the purpose by the University Court on the recommendation of the Senate.
- 4. The College concerned shall designate for each candidate a supervisor who shall report at least once in the year to the College on the progress of the Candidate.
- 5. Each candidate shall present himself or herself for written examination and shall submit written reports or other work, as prescribed in each syllabus. He or she may also be required to take an oral or practical examination or both. Performance in work assessed during the course may be taken into account in determining the award of the Degree.
- 6. The examiners may recommend the Degree be awarded with Merit or Distinction.
- 7. A candidate who fails to satisfy the examiners for the Degree may be permitted by the examiners to present himself or herself for re-examination, on one occasion only and normally not later than two years from the date of his or her first (final) examination, in the whole of the examination, or in a specific component of the examination, as the examiners may determine in each case; and in such cases the examiners shall prescribe whether the candidate shall be required to re-attend the whole course or specific parts of the course, or whether

Degree of MSc SciEng.27 (PG)

he or she may be permitted to present himself or herself for re-examination without further attendance on the course. An examination may be made up of components such as examination papers, submitted essays, dissertations, laboratory reports, project reports and field reports.

- 8. The examiners shall have discretion to recommend the award of a Postgraduate Diploma of Research in the appropriate subject area to a candidate who has gained a minimum of 120 credits.
- Details of the grading scheme, the requirements for the award of the Degree, the Postgraduate Diploma and the Postgraduate Certificate, and the criteria for the award of Merit and Distinction are contained in the programme documentation.
- 10. a) A list of institutions, approved by the relevant College Committee, where candidates may undertake external research projects, is held by the College Graduate Schools and by Research & Enterprise.
 - b) On the recommendation of the College concerned, and of the Senate, the University Court may recognise, in the case of individual candidates, other appropriate institutions for the purpose of §3 of these Regulations, where satisfactory arrangements can be made for the supervision of the candidate.
 - c) A full-time member of staff of a recognised institution may be nominated to Senate either as a supervisor or as an internal examiner or a member of an examination committee. In such cases, a member of staff from an appropriate subject area in the University shall be appointed in addition.

Schedule A

1. Subjects in which the MRes may be offered are listed below.

College of Science & Engineering

Nanoscience & Nanotechnology

DEGREE OF MASTER OF SCIENCE

RESOLUTION

The Degree of Master of Science is governed by Resolution No. 558 of the University Court, which came into effect on 1 October 2006, as subsequently amended, with provision that:

- 1. The Degree of Master of Science (MSc) may be awarded by the University of Glasgow in each of its Colleges; the Degrees of Master of Science (Adult & Continuing Education), Master of Science (Adult & Continuing Education (Community Development)) and Master of Science (Inter-professional Science Education and Communication) in the College of Social Sciences, the Degree of Master of Science (Medical Science) and the Degree of Master of Science (Veterinary Science) in the College of Medical, Veterinary & Life Sciences.
- 2. The Degree of Master of Science may also be awarded on the recommendation of SRUC (Scotland's Rural College).
- 3. The Degree of Master of Science or the Degree of Master of Science (Inter-professional Science Education and Communication), or the Degree of Master of Science (Medical Science) or the Degree of Master of Science (Veterinary Science) may be conferred (a) as an Honorary degree upon persons who have done work deserving of such recognition in any School in the Colleges of Medical, Veterinary & Life Sciences and Science & Engineering, (b) iure officii upon any person holding office in the University who is not already a graduate of the University.
- 4. The Senate may make regulations, which are subject to the approval of the University Court, governing the award of these Degrees these are set out in the section entitled 'Regulations'.

REGULATIONS

1. Candidates for the Degree may undertake, subject to the decision of the College concerned, research in accordance with the requirements of Schedule A. 33

Such research shall be prosecuted in the University of Glasgow or in another institution recognised for the purpose by the University Court on the recommendation of the Senate, except as provided under Clause 4.

- Before being admitted to study qualifying for the Degree of Master of Science, every candidate must satisfy the following conditions, namely:
 - i) he or she must have obtained a Degree in a University or College recognised for this purpose by the University Court on the recommendation of the Senate, or a Degree awarded by the Council for National Academic Awards; or

³³ Schedule B, pertaining to the award of the Degree following a prescribed course of study, and Schedule C, pertaining to the award of the Degree following a programme of work-based learning, have been deleted from the Regulations.

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ii) he or she must have obtained a diploma or certificate recognised as equivalent to a Degree for this purpose by the University Court on the recommendation of the Senate; or

- iii) in the case of the intercalated Master of Science (Veterinary Science), he or she must be registered on and have successfully completed three years of the Bachelor of Veterinary Medicine and Surgery; or
- iv) in exceptional circumstances, he or she must have obtained such other qualification(s) as may be recognised for this purpose by the University Court on the recommendation of the Senate; and
- b) he or she must have fulfilled such other entrance requirements as may be specified for a particular programme of research; and
- c) he or she must have satisfied the Senate of his or her fitness to undertake advanced study.
- 3. a) Candidates may be permitted to pursue research on either a full-time or a part-time basis. Full-time candidates must devote the major part of the day to their studies; provided that candidates shall be subject to the same provisions regarding minimum periods of study as full-time candidates if they have pursued their studies while holding appointment as a member of the teaching staff of the University of Glasgow, or as a Research Assistant or Research Fellow of the University of Glasgow paid through the Finance Office or directly by a grant-awarding body approved by the University Court.
 - b) The minimum period of study for each candidate shall be determined by the appropriate College at the time of his or her admission, according to his or her qualifications and other relevant factors, and shall normally be:
 - i) for full-time candidates, either 12 months or two academic years of full-time study;
 - ii) for part-time candidates, either two or three academic years of part-time study.
 - c) To qualify for the shorter minimum periods of study specified in (b), candidates should normally possess a Degree with Honours of the First or Second Class of an approved University, or a qualification deemed equivalent by the College concerned.
 - d) Where the longer minimum period of study has been initially prescribed but the candidate has made sufficient progress, the Senate may subsequently reduce the total period of study to not less than 12 months of full-time study or two academic years of part-time study as appropriate.
- 4. The Senate may for special reasons permit a candidate, whether full-time or part-time, to prosecute part of his or her studies elsewhere, provided that normally at least half of the candidate's total period of study is prosecuted in the University of Glasgow or in a recognised Institution.
- 5. The College concerned shall designate for each candidate a supervisor who shall report at least once a year to the College Graduate School on the progress of the candidate.

Schedule A: Master of Science by Research

- Research Students within the meaning of Ordinance 350 (General No 12) may be candidates for the Degree of Master of Science, or Master of Science (Medical Science) or Master of Science (Veterinary Science) in any appropriate area of study in the College of Medical, Veterinary & Life Sciences and Science & Engineering and Social Sciences.
- 2. On completion of the prescribed period of research, each candidate shall present a thesis embodying the results of his work. The thesis must be in English. The thesis may be either a record of original research, or a critical review of existing knowledge. In either case, either a written or an oral examination, or both, may be required, and candidates shall be notified of such requirements through their supervisors.
- 3. In no case shall the thesis required from a candidate be submitted before the completion of 12 months from the date of his admission as a research student. Except by special permission of the Senate, a thesis may not be presented after the lapse of 12 months from the date on which the candidate ceases to be a registered student.
- 4. Application for examination for the Degree of MSc, or the Degree of MSc (Medical Science) or the Degree of MSc (Veterinary Science), must be submitted in accordance with the procedures of the appropriate College, details of which may be obtained from the College Graduate School on request.
- 5. A Committee of Examiners shall be appointed to examine the thesis of each candidate. The Committee shall consist of one or more members appointed by the Senate, together with one or more external examiners appointed by the University Court on the recommendation of the Senate. The Examiners shall conduct such oral and written examinations as they may desire or as the Senate may prescribe in each case, but in no case shall the examination of the thesis constitute less than half of the final assessment.
- 6. A candidate must submit two bound printed or typewritten copies of his or her thesis. The thesis must include a summary (250-1,000 words), which must be accompanied by a declaration by the candidate that it has been composed by himself or herself. The candidate must also state the extent to which he or she has availed himself or herself of the work of others, and must further state which portions of the thesis, if any, he or she claims as original. The submitted copies of the thesis may be soft-bound but otherwise should generally conform to the British Standards Institution's *Recommendations for the Presentation of Theses and Dissertations* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.

Degree of MSc SciEng.29 (PG)

7. If the Examiners consider that the thesis, portfolio, or project work has not achieved the standard required for the award of the Degree, the candidate may be permitted to revise the thesis, portfolio or project and resubmit it, on one occasion only, under such conditions as the Examiners may prescribe in each particular case. Normally, resubmission should be no later than six months after the date of the meeting of the Board of Examiners.

8. If approved for the degree, one bound copy of the thesis and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

Schedule D: General Provisions

1. a) The following institutions are recognised for the purpose of Section 2 of the Resolution:

College of Medical, Veterinary & Life Sciences

Central Public Health Laboratory, Colindale, London, UK

Centre for Environment, Fisheries and Aquaculture Science, UK

Centre for Integrated Research & Understanding of Sleep, University of Sydney, Australia

Children's Hospital, Tabriz, Iran

Department of Clinical Physics and Bioengineering of the West of Scotland Health Boards, UK

Department of Economics, Faculty of Social Sciences, Lagos State University, Nigeria

European Molecular Biology Laboratory, Heidelberg, Germany

Fisheries Research Services, Freshwater Laboratory, Pitlochry, UK

Fisheries Research Services, Marine Laboratory, Aberdeen, UK

Glasgow and West of Scotland Blood Transfusion Service, UK

Glaxo SmithKline, Stevenage, UK

Institute for Animal Health, Compton Laboratory, Newbury, Berkshire, UK

Macaulay Land Use Research Institute

Moredun Research Institute, Pentlands Science Park, Penicuik, UK

National Institute for Biological Standards and Control, UK

Natural History Museum, London, UK

Papworth Hospital, Cambridge, UK

Royal Botanic Garden, Edinburgh, UK

Scottish Association for Marine Science, Dunstaffnage Marine Laboratory, UK

Scottish Crops Research Institute, Invergowrie, UK

Specialist Virology Laboratory, Gartnavel General Hospital, Glasgow, UK

SRUC (Scotland's Rural College), UK

Swarts Center Inst for Neyral Computation University of California San Diego La Jolla USA

The Fredric Rieders Foundation 2300 Stratford Avenue, Willow Grove PA 19090, USA

The Pirbright Institute, Ash Road, Pirbright, Woking, Surrey, UK

Universities Marine Biological Station, Millport, UK

Virginia Commonwealth University, USA

College of Science & Engineering

Australian National University, Department of Electrical and Mechanical Engineering, Canberra, Australia

Brigham and Women's Hospital (MIT), Cambridge, MA, USA

Charles University Faculty of Science, Prague, Czech Republic

College de France, Paris, France

Colorado Center for Astrodynamics Research, University of Colorado, Boulder, USA

Concordia University, Canada

Delft Institute of Technology, Delft Centre for Systems and Control, The Netherlands

Department of Mathematics, Macquarie University, Australia

Department of Applied Physics and Applied Mathematics, University of Columbia, USA

Department of Physics/MAX-lab, University of Lund, Sweden

Deutsches Electronen Synchrotron Laboratory (DESY) Hamburg, Germany

Diamond Light Source, UK

École Polytechnique Fédérale de Lausanne, Switzerland

European Nuclear Research Centre (CERN), Geneva

European Synchrotron Radiation Facility, Grenoble, France

Fermi National Accelerator Laboratory, Chicago, IL, USA

SciEng.30 (PG)

Degree of MSc

Gooch & Housego (UK) Ltd, Somerset, UK

GSI (Society for Heavy Ion Research) Darmstadt, Germany

Henrich-Heine University, Dusseldorf, Germany

Institute for Cosmic Ray Research, University of Tokyo, Japan

Institute Laue-Langevin, Grenoble, France

Institute of Nuclear Physics, University of Mainz, Germany

International Atomic Energy Agency, Vienna, Austria

ISIS Pulsed Neutron and Muon Source, UK

Jefferson Accelerator Laboratory, Newport, News, VA, USA

Johns Hopkins University, Baltimore, USA

Laboratoire d'étude spatiale et d'instrumentation en astrophysique (LESIA), Observatoire de Paris, France

LIGO Hanford Observatory, Hanford USA

LIGO Livingston Observatory, Livingston USA

Mathematische Institut Westfalische Wilhelms-Universitat Münster, Germany

MRC Mitochondrial Biology Unit, Cambridge, UK

Nanyang Polytechnic, Singapore

NERC Centre for Ecology and Hydrology Laboratories, Penicuik, UK

Parliamentary Offices for Science and Technology, London, UK

Queen Elizabeth University Hospital, Glasgow, UK

Scottish Universities Environmental Research Centre, East Kilbride, UK

Tokyo Institute of Technology, Japan

University of California at San Diego, La Jolla, Ca, USA

University of Dar Es Salaam, Tanzania

University of Hanover, Faculty of Physics/Albert Einstein Institute, Germany

University of Melbourne, Department of Computing and Information Systems, Australia

University of Oregon, Computer and Information Science Department, USA

University of Ottowa, Department of Physics, Canada

University of Tsukuba, Japan

- b) On the recommendation of the College concerned, and of the Senate, the University Court may recognise, in the case of individual candidates, other appropriate institutions for the purpose of Section 2 of the Resolution, where satisfactory arrangements can be made for the supervision of the candidate.
- c) A full-time member of staff of a recognised institution may be nominated to Senate *either* as a supervisor *or* as an internal examiner or a member of a Special Committee. In such cases, a member of staff from an appropriate subject area in the University shall be appointed also.

NON GENERIC MASTERS REGULATIONS

DEGREE OF MASTER OF RESEARCH IN PHOTONIC INTEGRATION & ADVANCED DATA STORAGE

The MRes in Photonic Integration & Advanced Data Storage is awarded jointly with the Queen's University, Belfast. The regulations governing the degree are those promulgated by the Queen's University, Belfast, the administering institution. Copies of the regulations can be obtained from the College Office in the College of Science and Engineering.

DEGREE OF MASTER OF SCIENCE

(The Degree may be awarded by the University of Glasgow alone or a degree may also be awarded by the Collaborating Institution, Nankai University.)

RESOLUTION

The Degree of Master of Science is governed by Resolution No. 649 of the University Court, which at the time of publication was in draft form, with provision that:

- The Degree of Master of Science (MSc) in the subjects listed in Schedule A of the Regulations may be awarded by the Senate of the University of Glasgow in the College of Science and Engineering and the College of Sciences.
- 2. The Senate may make regulations governing the award of the Degree which are subject to the approval of the University Court these are set out in the section entitled 'Regulations'.
- 3. The awards of Postgraduate Diploma and Postgraduate Certificate are also included in the Regulations.

Degree of MSc SciEng.31 (PG)

REGULATIONS

A student admitted onto the programme must follow the instructions issued by 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 and may include further requirements associated with the award.

1. 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.

2. Duration of Study

The minimum period of study for the award of the degree is 24 calendar months. The maximum period for full-time study is 48 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.

3. Programme Components

In order to qualify for the award of the degree a candidate must complete a minimum of 240 credits³⁴ including taught courses and a 60 credit dissertation.

4. 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 in the 'University Fees and General Information for Students' section of the *University Calendar*.

5. Assessment

- 5.1 Regulations for assessment 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*.
- 5.2 Courses for which the candidate has registered must be counted towards the calculation of the candidate's grade point average for the purposes of §8, and §9³⁵ 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.

6. Progress

A candidate will be permitted to progress to preparation of the dissertation only if he or she has obtained a grade point average ³⁶ of 12 (equivalent to C3) or above in the taught courses referred to in §3 with at least 75% of the credits at grade D3 or better and all credits at grade F3 or above. The Programme Document may specify a course or courses in respect of which a specific grade is a minimum requirement of progression.

7. Reassessment of Dissertation

Where a candidate requires a higher grade in the dissertation or other substantial independent work to satisfy the requirements set out in §8.1, reassessment of that dissertation or other 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 dissertation or substantial independent work or to undertake further practical work.

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

8.1 A candidate will be eligible for the award of the Degree on obtaining a grade point average³⁶ of 12 (equivalent to C3) or above in all the taught courses within the programme, as specified in §3, with at least 75% of these credits at grade D3 or better, and all credits at grade F3 or above, and obtaining a grade D3 or better in the dissertation.

³⁴ In compliance with the Scottish Credit and Qualification Framework for a Masters Degree 150 credits must be gained from *Masters level* courses (level M/SCQF level 11).

³⁵ Except for §9.2 and §9.3 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.

³⁶ The grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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.

- 8.2 A candidate who has achieved at the first attempt a grade point average of 15 (equivalent to B3) or above for the taught courses and grade B3 or above for the dissertation or other substantial independent work will be eligible for the award with Merit. Where the grade point average for the taught courses falls within the range 14.1 and 14.9 the Board of Examiners shall have discretion to make the award with Merit. No discretion can be applied in relation to the grade required for the dissertation or other substantial independent work.
- 8.3 A candidate who has achieved at the first attempt a grade point average of 18 (equivalent to A5) or above for the taught courses and grade A5 or above for the dissertation or other substantial independent work will be eligible for the award with Distinction. Where the grade point average for the taught courses falls within the range 17.1 to 17.9 the Board of Examiners shall have the discretion to make the award with Distinction. No discretion can be applied in relation to the grade required for the dissertation or other substantial independent work.
- Requirements for the Award of a Postgraduate Diploma or Postgraduate Certificate and Rules for Award of Distinction and Merit
- 9.1 The requirement for the award of a Postgraduate Diploma is a grade point average³⁶ of 9 (equivalent to D3) in 120 credits, with not less than 80 of these credits at grade D3 or above.
- 9.2 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 D3 or above.
- 9.3 These awards may be granted with Merit or Distinction according to the criteria specified in §8.2 and §8.3 in relation to the taught courses.

Schedule A

Subjects in which the Degree may be offered are:

College of Science & Engineering

Master of Science (MSc) Environmental Management

College of Social Sciences

Master of Science (MSc) International Relations
Master of Science (MSc) Urban & Regional Planning

DEGREE OF MASTER OF SCIENCE IN SENSOR & IMAGING SYSTEMS

The Taught Masters Programme in Sensor and Imaging Systems is offered jointly by the Universities of Glasgow and Edinburgh (the partner institutions). The regulations following are those promulgated by the University of Glasgow, the lead institution.

RESOLUTION

The Degree of Master of Science in Sensor & Imaging Systems is governed by Resolution No. 661 of the Court of the University of Glasgow, which at the time of publication was in draft form, with provision that:

- 1. The Degree of Master of Science (MSc) in Sensor & Imaging Systems may be awarded jointly by the Universities of Glasgow and Edinburgh.
- 2. A Joint Management Committee will be formed in relation to the Programme. The composition, terms of reference and remit of the Joint Management Committee are as set out in the Memorandum of Agreement entered into by the partner institutions.
- The Senate of the University of Glasgow may make Regulations, which are subject to the approval of the University Court, governing the award of these degrees. These are stated in clauses 1 to 11 of the section entitled 'Regulations'.

REGULATIONS

A student admitted onto the programme leading to the award of the Master of Science in Sensor and Imaging Systems (the Programme) must follow the instructions issued on behalf of the relevant Schools and Departments of the partner institutions 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 of the Programme and may include further requirements associated with the award.

1. Application of Regulations

Unless otherwise specified in these Programme specific regulations, the regulations of the lead university (the University of Glasgow) shall apply to all candidates on the Programme.

2. Admission

a) Entrance Requirements

Candidates must normally possess:

i) at least a second class honours degree in a relevant subject; or

ii) a qualification deemed by the Joint Management Committee to be equivalent to the above.

b) Registration

All candidates shall normally be initially registered for the Masters degree.

3. Duration of Study

The minimum period of study for the award of the 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.

4. Programme Components

- 4.1 In order to qualify for an award, a candidate must complete minimum credits³⁷ as follows:
 - i) For the award of the Masters degree: 180 credits, which includes both taught courses and a 60 credit project dissertation
 - ii) For the award of the Postgraduate Diploma: 120 credits of taught courses.
 - iii) For the award of the 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 project dissertation are as specified in the relevant Programme Document.

5. Minimum Requirement for the Award of Credits

- i) Credits for taught courses studied at the University of Glasgow 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 of the *University of Glasgow Calendar*.
- ii) For each taught course studied at the University of Edinburgh a candidate shall be awarded credit on achievement of at least a grade C or mark of 50% on the University of Edinburgh Common Marking Scheme. In addition, if a candidate achieves at least a grade C or mark of 50% on the University of Edinburgh Common Marking Scheme in at least 40 credits and has an overall average of 40% or more for the 60 taught credits studied at the University of Edinburgh, then he or she will be awarded credits on aggregate for any of the University of Edinburgh taught courses for which a grade of less than C or mark of less than 50% is awarded.

6. Assessment

- 6.1 Regulations for assessment 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 of Glasgow Calendar*.
- 6.2 For taught courses studied at the University of Edinburgh a candidate will be offered one assessment opportunity only.
- 6.3 The assessment of each taught course will be conducted by the institution teaching that course, with the course result determined in accordance with the assessment grading/mark schedule of that institution. In determining whether a candidate has satisfied the requirements set out in these regulations, the equivalence of course results recorded by the University of Edinburgh to those recorded by the University of Glasgow shall be governed by Appendix 1. The result for the project dissertation will be determined in accordance with the assessment schedule of the University of Glasgow.
- 6.4 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 §10³⁸ 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

A candidate will be permitted to progress to preparation of the project dissertation only if he or she has obtained

³⁷ 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.

³⁸ 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

a grade point average³⁹ 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. Exceptionally, a candidate may be permitted to progress to the project dissertation where it is judged⁴⁰ 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 reassessment for which he or she is eligible on courses studied at the University of Glasgow.

8. Reassessment of the Dissertation

Where a candidate requires a higher grade in the project dissertation to satisfy the requirements set out in §9.1, reassessment of that dissertation or other 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 project dissertation or to undertake further practical work.

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 average³⁹ 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 D3 or better in the project dissertation.
- 9.2 A candidate who has achieved a grade point average of 15 (equivalent to B3) or above for the taught courses and grade B3 or above for the project dissertation will be eligible for the award with Merit. Where the grade point average for the taught courses falls within the range 14.1 and 14.9 the Board of Examiners shall have discretion to make the award with Merit. No discretion can be applied in relation to the grade required for the project dissertation.
- 9.3 A candidate who has achieved a grade point average of 18 (equivalent to A5) or above for the taught courses and grade A5 or above for the project dissertation will be eligible for the award with Distinction. Where the grade point average for the taught courses falls within the range 17.1 to 17.9 the Board of Examiners shall have the discretion to make the award with Distinction. No discretion can be applied in relation to the grade required for the project dissertation.
- 9.4 Where a candidate has been reassessed on one or more taught courses delivered by the University of Glasgow and/or has resubmitted the project dissertation, only the result(s) obtained at the first attempt may be counted in determining eligibility for the award of Merit or Distinction.

10. Requirements for the Exit 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 average³⁹ of 9 (equivalent to D3) in 120 credits, with not less than 80 of these credits at grade D3 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 D3 or above.
- 10.3 These awards may be granted with Merit or Distinction according to the criteria specified in §9.2, §9.3 and §9.4 in relation to the taught courses.

11. Academic Appeals

A candidate wishing to appeal against an academic decision relating to a course should follow the academic appeals procedure of the institution delivering that course; a candidate wishing to appeal against an academic decision made in relation to the overall Programme should follow the academic appeals procedure of the University of Glasgow.

Appendix 1

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Glasgow			Edinburgh		
Primary Grade	Gloss	Secondary Band	Grade Point	Grade	Mark
Α	Excellent	A1	22	A1	90-100
		A2	21		
		A3	20	A2	80-89
		A4	19		
		A5	18	A3	70-79

³⁹ The grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A of the University of Glasgow'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.

⁴⁰ 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.

Degree of PhD SciEng.35 (PG)

В	Very Good	B1	17		
	Very Cood	B2	16	В	60-69
				, D	00-03
		B3	15		
С	Good	C1	14		
		C2	13	С	50-59
		C3	12		
D	Satisfactory	D1	11		
		D2	10	D	40-49
		D3	9		
E	Weak	E1	8		
		E2	7	E	30-39
		E3	6		
F	Poor	F1	5		
		F2	4	F	20-29
		F3	3		
G	Very Poor	G1	2	G	10-19
	-	G2	1		
Н			0	Н	0-9

GENERIC REGULATIONS FOR DOCTORATE DEGREES

DEGREE OF DOCTOR OF PHILOSOPHY

RESOLUTION

The Degree of Doctor of Philosophy is governed by Resolution No. 507 of the University Court which came into effect on 1 October 2004, as subsequently amended. The provisions of the Resolution are as follows:

- 1. The Degree of Doctor of Philosophy (PhD) may be awarded by the Senate of the University of Glasgow in each of the Colleges thereof;
- 2. The Senate shall have power to make such regulations governing the award of the Degree as may be approved by the University Court, and these shall be as stated in Schedules A to D⁴¹:
- 3. A candidate for the Degree may either undertake study or research in accordance with the provisions of Schedule A or, in the case of The Glasgow School of Art, Schedule C, or shall present either a published thesis or a published memoir or work or other material in accordance with the provisions of Schedule B or, in the case of The Glasgow School of Art, Schedule D;
- 4. The Degree of Doctor of Philosophy whether by research or by published work shall in no case be conferred on persons who have not satisfied the conditions set out below, and shall not be conferred as an Honorary Degree;

Schedule A: Degree of Doctor of Philosophy by Research

The following regulations are supplemented by a series of Guidance Notes for students which are available with the online *University Calendar* which can be found at www.gla.ac.uk/services/senateoffice/policies/calendar/.

- A research student who has pursued in the University of Glasgow⁴², or in an institution recognised and approved for the purpose, a course of special study or research, may offer himself or herself for the Degree of Doctor of Philosophy under the following conditions:
 - a) that he or she has obtained a degree in any Scottish university, or in another university or college specially recognised for the purpose of this Section by the University Court on the recommendation of the Senate (provided always that a diploma or certificate recognised in like manner as equivalent to a degree may be accepted in place of a degree);
 - b) that he or she has produced to the Senate evidence of satisfactory progress in the special study or research undertaken by him or her;
 - c) that he or she will have been registered for such study on a full-time basis for a period of not less than three academic years, or on a part-time basis for a period of either not less than five years of part-time study or not less than four years, comprising three years of part-time study and one year of full-time study, provided always that the Senate shall have power, in exceptional cases, to reduce the period by one academic year;
 - d) that he or she must be available for supervision in the University throughout the period of study except when given permission to pursue research elsewhere.

⁴¹ Schedules C and D are published in The Glasgow School of Art section of the *University Calendar*.

⁴² It is possible for students to pursue research off-campus subject always to provisions applied by the College which will reflect the nature of study in the associated discipline.

SciEng.36 (PG) Degree of PhD

e) that he or she has pursued such formal research training and any other attendance requirements as set down by the College concerned.

- 2. The normal standard of admission for a research student will be that of a Degree with First or Upper Second Class Honours in a relevant discipline but another qualification, being a qualification approved by the University Court as provided in Clause 1, may be accepted by the relevant College as being suitable for the programme of study which it is proposed that the applicant should follow.
- 3.1 Each candidate for the Degree of Doctor of Philosophy shall present for the approval of the Senate a thesis which shall embody the results of the candidate's special study or research, and which shall be accompanied by a declaration signed by the candidate that the thesis has been composed by himself or herself.
 - a) In the College of Arts and the College of Social Sciences the thesis shall be a minimum of 70,000 and a maximum of 100,000 words including references, bibliography and appendices in each case.
 - b) In the College of Medical, Veterinary & Life Sciences and the College of Science & Engineering the thesis shall be a maximum of 80,000 words excluding references, bibliography and appendices in each case.

A candidate who wishes to submit a thesis of greater or lesser length must seek prior permission of the appropriate College Higher Degrees Committee or equivalent.

- 3.2 A thesis for the degree of PhD shall normally be presented for examination within four years from the date when a candidate first registered for full-time study or eight years from the date when a candidate first registered for part-time study. Where the candidate has registered for a combination of full-time and part-time study, or where the College has approved suspension ⁴³ of study for a period of time, the maximum period of study permitted shall be equivalent to the duration for full and part-time study plus the approved period of suspension adjusted proportionately.
- 3.3 Where the candidate has fulfilled the prescribed period of full-time or part-time study required by the regulations, and has not submitted the thesis for examination, the candidate shall be registered with a 'thesis pending' status. If further research project work is required, the College may require the candidate to register as a full-time or part-time student. Failure to meet College requirements for progress without good cause may result in exclusion from further study.
- 3.4 The thesis shall be examined by one or more examiners appointed by the Dean of Graduate Studies on behalf of Senate from among the experienced academic staff of the University, and by one or more External Examiners appointed by the Dean of Graduate Studies on behalf of the University Court and Senate. No person who has been involved in the direct supervision of the candidate may be appointed as an examiner. The internal examiner shall not undertake any duties which have been allocated to the Convener (see §3.6 and Guidance Note 4) and shall act as an examiner in the normal way. In the case of a submission by a member of staff or a former member of staff two of the examiners must be external. 44 A thesis may be examined by two external examiners without the appointment of an Internal Examiner, with the approval of the Dean of Graduate Studies.
- 3.5 A candidate for the Degree of PhD must present himself or herself for oral examination by the Committee of Examiners on the subject matter of the thesis and its context. The requirement for an oral examination shall be observed at the first submission of the thesis. In undertaking an oral or other examination the candidate must follow any requirements for the assessment as stated by the Graduate School.
- 3.6 A Convener shall be appointed by the Convener of the Higher Degrees Committee or its equivalent committee to convene the oral examination and to report on the agreed recommendations of the Committee of Examiners to the appropriate College Committee.

The Convener will be responsible for the following:

- a) making the arrangements for an oral examination and ensuring that this is normally held no later than three months after the submission of the thesis:
- b) attending the whole examination and ensuring that it is conducted in a fair manner and is of a reasonable duration:
- c) assisting the examiners to reach a consensus, noting that, subject to the authority of Senate, the view of the External Examiner shall normally prevail;
- d) arranging for the report stating the recommendation of the Committee of Examiners to be signed at the conclusion of the examination:
- e) after the oral, co-ordinating the completion of a joint report detailing the requirements for revision or resubmission and providing this to the candidate;

⁴³ A College Higher Degrees Committee or equivalent may permit the period of study to be suspended for a defined period when a student is ill or has other personal circumstances which prevent the student from continuing the research. Suspension can be agreed by the College Higher Degrees Committee or equivalent for other reasons, such as student internships. The arrangements for suspension of study shall be in accordance with those of the Research Councils.

⁴⁴ The Clerk of Senate may waive the requirement for two of the examiners to be external where the candidate's appointment is not regarded as one that might compromise the impartiality of an Internal Examiner.

Degree of PhD SciEng.37 (PG)

3.7 The supervisor shall not normally be present at the oral examination but shall be available to the Committee of Examiners for consultation. If the candidate makes a request in writing to the Convener for the supervisor to be present at the oral examination, this should normally be permitted. The request should be made no later than one week before the date of the oral.

- 3.8 Where a candidate has been permitted to resubmit a thesis for examination, an oral shall also be held other than in exceptional circumstances, where the Convener, on the recommendation of the Committee of Examiners, may seek the agreement of the Dean of Graduate Studies to set aside the requirement for an oral examination after resubmission. In such circumstances the agreement of the candidate must be obtained, otherwise the candidate shall have the right to insist on an oral being held.
- 3.9 Where a candidate has been permitted to resubmit the thesis, it shall normally be on one occasion only. The resubmitted thesis shall be examined by the Committee of Examiners appointed for the first submission or by the Committee of Examiners appointed for the second submission.
 - If the Committee of Examiners considers that the thesis has not achieved the standard required for the Degree of PhD but is of sufficient merit to be worthy of an award, it may recommend that the candidate revise the thesis and submit it for consideration for a Masters degree.
- 4. Particular conditions relating to study or research in the Colleges are set out below. A candidate must also comply with detailed requirements for research degrees published by the relevant Graduate School.

Arts

The thesis must normally be written and defended in English. Exceptionally, however, at the time of application the College Graduate School Board (or equivalent) may approve arrangements whereby the thesis may be written and defended in a language other than English, such as Gaelic. Approval will normally be given only where the use of a language other than English is deemed appropriate by the relevant School and the Graduate School Board and where the School and the Graduate School Board are satisfied that appropriate arrangements can be made for supervision and examination. In addition to the requirement for satisfactory completion of a thesis, the candidate will be required to attend training courses as specified by the Graduate School and also, where appropriate, by his or her supervisors. Candidates may be exempted in full or part from this requirement, normally by virtue of training undertaken and recognised by the Graduate School as meeting training requirements.

Where a School determines it to be appropriate, candidates may present a thesis accompanied by a related piece of creative work, for example, a play, a theatrical performance, a translation or computer software. In cases where a performance element is involved, candidates must provide a permanent record of the creative aspect of the overall submission to be deposited with the thesis in the University Library. In such cases, the Graduate School Board shall, in consultation with the supervising School, advise candidates on the minimum length of the thesis component. The Board of Examiners is required to attend a performance of the creative work.

In English Literature, candidates may present themselves for a PhD in a specific Creative Writing genre. Before being considered for admission to study for the award, candidates must normally satisfy the requirements of §1, and present sufficient evidence of potential in creative writing, through submission of a portfolio of creative and critical work. Registered candidates must satisfactorily complete, in the first two years, prescribed studies which shall include attendance at writing seminars and/or workshops. Each candidate's progress in the prescribed studies shall be assessed by means of set projects and/or a journal of studies maintained by the candidate. During the third year, under the supervision of a person appointed for the purpose by the College, candidates shall prepare and present for the approval of the Senate, a thesis or portfolio of written work which shall make significant contribution to literature in the generic route chosen, normally containing material worthy of publication. The thesis shall be deemed to constitute a 'thesis which shall embody the results of the candidate's special study or research' as required under §3.1 of the Resolution. Following successful completion of the first two years of study, candidates will be eligible for the award of Master of Philosophy if they elect to end their studies at this stage.

In Film & Television Studies, candidates may present themselves for a practice-based PhD. The candidate shall typically complete a thesis of 30-40,000 words in length and a practical component of significant originality and sophistication (examples might include, but are not limited to, an artistic or experimental video work, documentary, video-essay, a collection of shorts, an exhibition or installation, festival, and so on). In exceptional circumstances a shorter or longer thesis might be agreed, to provide an appropriate balance with the practical component, thereby enabling either the completion of a larger and appropriately sophisticated or complex practical component, or, conversely, to weigh in favour of a longer thesis in relation to a more discrete focus on the practical component. The thesis and practical component taken together shall be deemed to constitute a 'thesis which shall embody the results of the candidate's special study or research' as required under §3.1 of the Resolution.

In Music, PhD candidates may present themselves for examination by thesis or by portfolio. Normally a thesis will be of 70,000 – 100,000 words. For examination by thesis, the candidate may include a range of practical components in support of their underlying argument, but this is not a requirement. The precise relationship between practical work and written commentary, and their relative weightings, will be agreed between the candidate, their supervisors, and the Music postgraduate convener, through Annual Progress Review as part of the development of the project. For examination by portfolio, candidates may submit work in a range of disciplines, including composition, sonic art, performance or other forms of creative practice. Extended critical and methodologically informed documentation of the research project will accompany the creative inquiry. The written

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component is expected to complement and reflect in a rigorous manner upon the practical component. Normally the portfolio will comprise creative work of approximately two hours' duration or work of equivalent depth or complexity and the written component will be 10,000-20,000 words. The precise relationship between practical work and written commentary, and their relative weightings, will be agreed between the candidate, their supervisors, and the Music postgraduate convener, through Annual Progress Review as part of the development of the project.

Medical, Veterinary & Life Sciences

A candidate holding an appointment as a member of the teaching or research staff of the University of Glasgow, paid through the Finance Office or directly by a grant awarding body approved by the University Court, may register part-time whilst being subject to the same provisions regarding minimum periods of full-time study if he or she devotes the major part of the day, typically 75-80% of his or her time, to research studies.

In addition to the requirement for satisfactory completion of a thesis, a candidate will normally be required to attend training courses as specified by the College Graduate School.

Science & Engineering

To qualify for the award of a PhD, a candidate must have demonstrated to a Committee of Examiners by the presentation of a thesis and by performance in an oral examination that he or she is capable of:

- a) pursuing original research in his or her specific field of study, and
- b) relating his or her results to the general body of knowledge in the field, and
- c) presenting his or her results in a critical and scholarly manner.

In addition to the requirement for satisfactory completion of a thesis, the candidate will normally be required to attend training courses as specified by the College Graduate School.

Social Sciences

The thesis must normally be written and defended in English. Exceptionally, however, at the time of application the College Higher Degrees Committee may approve arrangements whereby the thesis may be written and defended in a language other than English. Approval will normally be given only where the use of a language other than English is deemed appropriate by the relevant School and the Higher Degrees Committee and where the School and the Higher Degrees Committee are satisfied that appropriate arrangements can be made for supervision and examination.

In addition to the requirement for satisfactory completion of a thesis, the candidate will be required to attend training courses as specified by the Graduate School and also, where appropriate, by his or her supervisors. Candidates may be exempted in full or part from this requirement, normally by virtue of training undertaken and recognised by the Graduate School as meeting training requirements.

5. Teaching or Research Staff of the University or Recognised Institutions - Candidature for the Degree

A member of the teaching staff of the University, or a person who holds an appointment as Research Assistant or Research Fellow of the University of Glasgow and is paid through the Finance Office or directly by a grant-aiding body approved by the University Court, or a member of the teaching or research staff of any other institution recognised for the purpose of §1, may notwithstanding offer himself or herself for the Degree of Doctor of Philosophy if he or she has prosecuted a course of special study or research on a part-time basis for a period of not less than three years.

6. Research in External Institutions

As permitted in §1, College Graduate Schools may allow the candidate's study or research to be conducted in an institution external to the University of Glasgow. The period of study of research elsewhere shall not normally exceed 12 months except where that study or research is undertaken in an institution or location approved by the appropriate College Committee. The choice of an external institution will be determined *ad hoc* and only where there exists clear alignment of the candidate's proposed study or research with the aims and objectives of the institution proposed, and where the institution can demonstrate ability to provide an appropriate level of supervision of the candidate. A full-time member of staff of a recognised Institution may be nominated by the College Graduate School on behalf of Senate *either* as a supervisor *or* as an internal examiner although such an individual may not be nominated as an examiner if he or she has previously supervised the candidate's work. In cases where an employee of the institution acts as supervisor or internal examiner, a member of staff from an appropriate subject area in the University will also be appointed.

The following institutions are recognised for the purpose of this regulation:

College of Medical, Veterinary & Life Sciences

Central Public Health Laboratory, Colindale, London, UK

Centre for Environment, Fisheries and Aquaculture Science, UK

Centre for Integrated Research & Understanding of Sleep, University of Sydney, Australia

Children's Hospital, Tabriz, Iran

Department of Clinical Physics and Bioengineering of the West of Scotland Health Boards, UK

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Department of Economics, Faculty of Social Sciences, Lagos State University, Nigeria

European Molecular Biology Laboratory, Heidelberg, Germany

Fisheries Research Services, Freshwater Laboratory, Pitlochry, UK

Fisheries Research Services, Marine Laboratory, Aberdeen, UK

Glasgow and West of Scotland Blood Transfusion Service, UK

Glaxo SmithKline, Stevenage, UK

Institute for Animal Health, Compton Laboratory, Newbury, Berkshire, UK

Macaulay Land Use Research Institute, UK

Moredun Research Institute, Pentlands Science Park, Penicuik, UK

National Institute for Biological Standards and Control, UK

Natural History Museum, London, UK

Papworth Hospital, Cambridge, UK

Royal Botanic Garden, Edinburgh, UK

Scottish Association for Marine Science, Dunstaffnage Marine Laboratory, UK

Scottish Crops Research Institute, Invergowrie, UK

Specialist Virology Laboratory, Gartnavel General Hospital, Glasgow, UK

SRUC (Scotland's Rural College), UK

Swarts Center Inst for Neyral Computation University of California San Diego La Jolla USA

The Fredric Rieders Foundation 2300 Stratford Avenue, Willow Grove PA 19090, USA

The Pirbright Institute, Ash Road, Pirbright, Woking, Surrey, UK

Universities Marine Biological Station, Millport, UK

Virginia Commonwealth University, USA

College of Science & Engineering

Australian National University, Department of Electrical and Mechanical Engineering, Canberra, Australia

Brigham and Women's Hospital (MIT), Cambridge, Massachusetts, USA

Charles University, Faculty of Science, Prague, Czech Republic

College de France, Paris, France

Colorado Center for Astrodynamics Research, University of Colorado, Boulder, USA

Concordia University, Canada

Delft Institute of Technology, Delft Centre for Systems and Control, The Netherlands

Department of Mathematics, Macquarie University, Australia

Department of Applied Physics and Applied Mathematics, University of Columbia, USA

Department of Physics/MAX-lab, University of Lund, Sweden

Deutsches Electronen Synchrotron Laboratory (DESY) Hamburg

Diamond Light Source, UK

Ecole Polytechnique Fédérale de Lausanne, Switzerland

European Nuclear Research Centre (CERN), Geneva

European Synchrotron Radiation Facility, Grenoble, France

Fermi National Accelerator Laboratory, Chicago, IL, USA

Gooch & Housego (UK) Ltd, Somerset, UK

GSI (Society for Heavy Ion Research) Darmstadt, Germany

Henrich-Heine University, Dusseldorf, Germany

Institute for Cosmic Ray Research, University of Tokyo

Institute Laue-Langevin, Grenoble, France

Institute of Nuclear Physics, University of Mainz, Germany

International Atomic Energy Agency, Vienna, Austria

ISIS Pulsed Neutron and Muon Source, UK

Jefferson Accelerator Laboratory, Newport, News, VA, USA

Johns Hopkins University, Baltimore, USA

Laboratoire d'étude spatiale et d'instrumentation en astrophysique (LESIA), Observatoire de Paris, France

LIGO Hanford Observatory, Hanford USA

LIGO Livingston Observatory, Livingston USA

Mathematische Institut, Westfalische Wilhelms-Universitat Munster, Germany

MRC Mitochondrial Biology Unit, Cambridge, UK

Nanyang Polytechnic, Singapore

NERC Centre for Ecology and Hydrology Laboratories, Penicuik, UK

Parliamentary Offices for Science and Technology, London, UK

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Queen Elizabeth University Hospital, Glasgow, UK

Scottish Universities Environmental Research Centre, East Kilbride, UK

Tokyo Institute of Technology, Japan

University of California at San Diego, La Jolla, California, USA

University of Dar Es Salaam

University of Hanover Faculty of Physics/Albert Einstein Institute, Germany

University of Melbourne, Department of Computing & Information Systems, Australia

University of Oregon, Computer and Information Science Department, USA

University of Ottowa, Department of Physics, Canada

University of Tsukuba, Japan

7. Submission of Thesis

In submitting a thesis a candidate must state, generally in the preface and specifically in the notes, the sources from which his or her information is derived, the extent to which he or she has availed himself or herself of the work of others, and the portions of the thesis which he or she claims as original. The thesis must be in English.

In the College of Medical, Veterinary & Life Sciences a candidate must submit three copies of the thesis; in all other Colleges two copies of the thesis must be submitted. In all cases the submission must include a summary of 250 – 1,000 words. The summary must be an adequate and informative abstract of the work, suitable for publication by the University. The submitted copies of the thesis may be soft-bound but otherwise should generally conform to the British Standard Institution's *Recommendations for the presentation of theses* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.

In signing a submission form, the supervisor is confirming that the work was undertaken by the candidate. The wording of the form makes it clear that the supervisor's signature does not endorse that the work has been completed nor does it indicate that the thesis has achieved the required standard for the award of the degree. A candidate may submit a thesis against the advice of the supervisor but in such cases the supervisor may state the position in a report submitted to the Convener of the Committee of Examiners.

If approved for the degree, one hard-bound copy of the thesis and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

Schedule B: Degree of Doctor of Philosophy by Published Work

- 1. A person may be admitted as a candidate for the degree of Doctor of Philosophy by published work who:
 - a) i) is a graduate of the University of Glasgow and whose date of submission of his/her thesis is at least five years from the date of his/her first graduation in the University; or
 - ii) is a member of staff who has normally been employed for the full-time equivalent of at least five years and is paid through the University Finance Office or directly by a grant aided body approved by the University Court: or
 - iii) is a former member of staff who has completed the full-time equivalent of a minimum of five years employment and was paid through the University Finance Office or directly by a grant aided body approved by the University Court, and who presents him or herself as a candidate for the degree within one calendar year of leaving the University's employment.
 - b) has not been enrolled as a Research Student in the University of Glasgow during the five years preceding the date of submission although the College Higher Degrees Committee (or equivalent) shall have the discretion to entertain applications from candidates who wish to transfer from the conventional PhD; and
 - does not hold any Doctoral Degree of the University of Glasgow or of any other University or College in the same subject area; and
 - d) has been found by the appropriate College to possess prima facie a qualification for the Degree.

A College Higher Degrees Committee (or equivalent) shall have the discretion to reduce the qualifying period to three years in the case of full-time members of academic staff in the employment of the University.

- 2. Subject to the provisions of §9 of Schedule B of this Resolution, candidates for the Degree of Doctor of Philosophy by published work shall present for the approval of Senate published work, which shall be a record of original research undertaken by the candidate, and shall be accompanied by a declaration signed by the candidate detailing the extent to which the research has been done and the work written by himself or herself.
- 3. Every prospective candidate for the degree shall submit to the appropriate College two copies of the work to be examined together with copies of the following documentation each in triplicate: a curriculum vitae, and an explanatory essay of 2,000 5,000 words which justifies the intellectual significance of the submission. Should the

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submission comprise diverse publications, the explanatory essay should explain the relationship, if any, between the works submitted, including any developments which have occurred between one piece and another.

Material other than books must be bound in a volume in cloth with stiff boards. The layout and binding of the thesis should generally conform to the *Recommendation for the Presentation of Theses and Dissertations* published by the British Standards Institution (BS4821:1990), a summary of which is available in the University Library or may be obtained from the Clerk of the appropriate College. The thesis must include a summary (500 - 1,000 words), which must be an adequate and informative abstract of the work. The summary should be bound with the thesis where possible; and three separate copies of the summary should also be provided.

- 4. The Dean of Graduate Studies shall nominate a member of staff to give advice to the candidate with regard to the preparation of his/her submission.
- 5. Preliminary assessment Only if it is in the opinion of the College Higher Degrees Committee (or equivalent) and of any adviser(s) whom it may consult that the work described in the abstract, in the explanatory essay and the publications is of the standard expected for the degree of Doctor of Philosophy by supervised research, will the full application be accepted for consideration.
- If a full application is permitted by the College Higher Degrees Committee (or equivalent), a candidate must then submit two copies of the work to be examined; both copies, if approved for the Degree, shall become the property of the University.
- 7. All the materials submitted must normally be in English and may include the following:

Art / artefacts, exhibited or otherwise presented within the public domain; design of exhibitions or events; editorships and curation; public commissions; media presentations including performance, installations and catwalk presentations; mass production; patents and registered designs; new devices including software; reports; other non-textual research output; authored books; authored chapters in books; authored articles in journals and papers and posters.

Materials must be published in terms of the following definition:

A work is normally regarded as published only if it is traceable through ordinary catalogues, abstracts or citation notices, and copies are available to the general public. This will normally require the work to be publicly registered with an ISSN/ISBN number. Material which is unpublished or which has only a restricted circulation is not acceptable in whole or partial fulfilment of the requirements for this degree.

Exceptionally, the College Higher Degrees Committee (or equivalent) may approve the submission and defence of the work in a language other than English, such as Gaelic. Approval will normally be given only where the use of a language other than English is deemed appropriate by the relevant School and the Higher Degrees Committee (or equivalent), and where the School and Higher Degrees Committee (or equivalent) are satisfied that appropriate examination arrangements can be made.

- 8. Any work which is about to be included in a submission by the candidate for any other Higher Degree or Diploma either in the University of Glasgow or in any other institution, or which has already been included in a submission, whether successful or unsuccessful, for any other Higher Degree or Diploma in another institution is not admissible in whole or partial fulfilment of the requirements for the Degree of PhD by published work.
- 9. A candidate may submit work which has resulted from collaborative research and joint authored publications, provided the nature and extent of the candidate's contribution is specified in the accompanying explanatory essay. The candidate must seek confirmation of this from the co-authors or researchers and provide written evidence of such confirmation to the satisfaction of the Higher Degrees Committee (or equivalent).
- 10. A Higher Degrees Committee (or equivalent) may at its discretion disqualify any submission or part thereof. It is not a necessary requirement for this degree that the work submitted should be published within a defined period.
- 11. The thesis shall be examined by one or more examiners appointed by the Senate from among the experienced academic staff of the University, and by one or more External Examiners appointed by the University Court on the recommendation of the Senate. No person who has been involved in the direct supervision of the research student may be appointed as an examiner. The internal examiner shall not undertake any duties which have been allocated to the Convener (Guidance Note 3) and shall act as an examiner in the normal way. A thesis may be examined by two external examiners without the appointment of an Internal Examiner, with the approval of the Dean of Graduate Studies. In the case of a submission by a member of staff or a former member of staff two of the examiners must be external.⁴⁵

The Board of Examiners shall normally require that the candidate present himself or herself for oral or other examination on the subject matter of the work and other material submitted for examination. The reports of the examiners shall be submitted to the appropriate College Higher Degrees Committee (or equivalent) who shall if it thinks fit make a recommendation thereon to the Senate. The candidate shall be approved for the Degree only if, in the opinion of the College and the examiners, the submitted work constitutes an examination of a field of study which makes a significant and original contribution to existing knowledge and is of an equivalent standard

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⁴⁵ The Clerk of Senate may waive the requirement for two of the examiners to be external where the candidate's appointment is not regarded as one that might compromise the impartiality of an Internal Examiner.

to a thesis which embodies the results of three years full-time supervised research (or equivalent) and for which a candidate was awarded the degree of PhD. The Board of Examiners may require minor changes to the explanatory essay as a requirement for the award if there is otherwise agreement that the submitted work meets the criteria for the Degree.

- 12. An unsuccessful submission for the degree of PhD by published work will not become eligible for the award of a Masters Degree or Diploma, in lieu of the degree of PhD, and nor will the unsuccessful submission become eligible for resubmission in its present form on a future occasion.
- 13. No candidate may apply for re-examination for the degree of PhD by published work until the lapse of at least three years from the date of the intimation of the decision of the Higher Degrees Committee (or equivalent) regarding the previous submission. Such re-examination shall be regarded as a de novo application and not the resubmission of the initial application.

DEGREE OF DOCTOR OF PHILOSOPHY WITH INTEGRATED STUDY

RESOLUTION

The Degree of Doctor of Philosophy with Integrated Study is governed by Resolution 665, which at the time of publication was in draft form, with provision that:

- The Degree of Doctor of Philosophy (PhD) with Integrated Study may be awarded by the Senate of the University
 of Glasgow in each of the Colleges thereof;
- 2. The Senate shall have power to make such regulations governing the award of the Degree as may be approved by the University Court;
- The Degree of Doctor of Philosophy with Integrated Study shall in no case be conferred on persons who have not satisfied the conditions set out below, and shall not be conferred as an Honorary Degree;

The following regulations are supplemented by PhD Guidance Notes for students, which additionally apply to the Degree of Doctor of Philosophy with Integrated Study unless specifically excluded by regulation, and which are available within the current on-line *Calendar* which can be found at www.gla.ac.uk/services/senateoffice/calendar.

- A research student who has pursued in the University of Glasgow, or in an institution recognised and approved for the purpose, a programme of study comprising taught courses and research, may offer himself or herself for the Degree of Doctor of Philosophy with Integrated Study under the following conditions:
 - a) that he or she has obtained a degree in any Scottish university, or in another university or college specially recognised for the purpose of this Section by the University Court on the recommendation of the Senate (provided always that a diploma or certificate recognised in like manner as equivalent to a degree may be accepted in place of a degree). The normal standard of admission for a research student will be that of a Degree with First or Upper Second Class Honours in a relevant discipline of a Scottish University, or an approved equivalent qualification;
 - b) that he or she has produced to the Senate evidence of satisfactory progress in the taught courses and research undertaken by him or her;
 - that he or she will have been registered for such study on a full-time basis for a period of not less than four academic years;
 - d) that each candidate will be supported by a supervision team which will normally include the primary academic supervisor, a second academic supervisor, and other academic staff as required to offer expertise in guiding and supporting the candidate's research;
 - e) that he or she has pursued such formal research training as set down by the Higher Degrees Committee or equivalent and as any other training or attendance requirements as specified by the College;
- 2. Each candidate for the Degree of Doctor of Philosophy with Integrated Study shall:
 - a) complete a programme of study prescribed at the commencement of the period of study by the Higher Degrees Committee or equivalent, which shall include a minimum of 120 credits⁴⁶ of taught courses, and may also include a project leading to the submission of a 60 credit dissertation.
 - b) present for the approval of the Senate a thesis which shall embody the results of the research, and which shall be accompanied by a declaration signed by the candidate that the thesis has been composed by himself or herself. In the College of Arts and the College of Social Sciences the thesis shall be a minimum of 70,000 and a maximum of 100,000 words including references, bibliography and appendices in each case. In the College of Medical, Veterinary & Life Sciences and the College of Science & Engineering the thesis shall be a

⁴⁶ In compliance with the Scottish Credit and Qualification Framework a minimum of 90 credits must be gained from Masters level courses (level M/SCQF level 11).

maximum of 80,000 words excluding references, bibliography and appendices in each case. A candidate who wishes to submit a thesis of greater or lesser length must seek prior permission of the appropriate College Higher Degrees Committee or equivalent.

3. Assessment of Taught Courses

- 3.1 Regulations for assessment of the taught courses 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*.
- 3.2 Where a candidate whose programme of study includes a 60 credit dissertation requires a higher grade in the dissertation to satisfy the requirements set out in §4.3, or §6.1 reassessment of that dissertation will be permitted on one occasion only, under such conditions as the Higher Degrees Committee or equivalent may prescribe in each particular case. There is no automatic entitlement to repeat any previous practical work associated with the dissertation or to undertake further practical work.

4. Progress

- 4.1 Prior to being permitted to progress to a subsequent year of study a candidate shall be subject to the College requirements for progress in relation to both the programme of prescribed study and the research.
- 4.2 The minimum achievement required in relation to the prescribed programme of study for progress to a subsequent year will be determined by the Higher Degrees Committee or equivalent and communicated to the candidate at the start of each year.
- 4.3 In addition to requirements determined under §4.1 and §4.2:
 - a) For subjects listed under Schedule A of these regulations, in order to progress to the fourth year of study a candidate must have achieved a grade point average⁴⁷ of 12 (equivalent to C3) or above in the taught courses referred to in §2(a), with at least 75% of these credits at grade D3 or better, and all credits at grade F or above, and, where a candidate's programme of study includes a 60 credit dissertation, the candidate must have achieved a grade D3 or better in the dissertation.
 - b) For subjects listed under Schedule B of these regulations, in order to progress to the second year of study a candidate must have obtained a grade point average of 15 (equivalent to B3) in 120 credits at the first attempt, with all credits at grade C3 or better. A candidate who does not meet this requirement will be eligible to transfer to a programme of study leading to the award of a Taught Masters degree on such terms as the Higher Degrees Committee or equivalent may determine.
- 4.4 A candidate whose progress in relation to the research is deemed by the College to be unsatisfactory may be excluded from further study towards the degree of Doctor of Philosophy with Integrated Study. The candidate may apply for his or her registration to be transferred to a programme of study leading to the award of a Taught Masters degree on such terms as the Higher Degrees Committee or equivalent may determine.
- 4.5 A candidate who fails to comply with the requirements of §4.2 and §4.3 may be excluded from further study towards the degree of Doctor of Philosophy with Integrated Study. The candidate may apply to have his or her registration transferred to the Degree of Doctor of Philosophy on such terms as the Higher Degrees Committee or equivalent may determine.

5. Thesis

5.1 A thesis for the Degree of Doctor of Philosophy with Integrated Study shall normally be presented for examination within four years from the date when a candidate first registered for full-time study. Where the College has approved suspension of study for a period of time, ⁴⁸ the maximum period of study permitted shall be equivalent to the duration for full-time study plus the approved period of suspension adjusted proportionately.

- 5.2 Where the candidate has fulfilled the minimum period of study required by the regulations and has not submitted the thesis for examination, he or she shall be registered with a 'thesis pending' status. If further research project work is required, the College may require the candidate to register as a full-time or part-time student. Failure to meet College requirements for progress without good cause, may result in exclusion from further study.
- 5.3 The thesis shall be examined by one or more examiners appointed by the Senate from among the experienced academic staff of the University, and by one or more External Examiners appointed by the University Court on the recommendation of the Senate. No person who has been involved in the direct supervision of the research student

⁴⁷ The grade point average is determined with reference to the schedule of grades and grade points contained in Schedule A 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.

⁴⁸ The appropriate College Committee may permit the period of study to be suspended for a defined period when a student is ill or has other personal circumstances which prevent the student from continuing the research or taught elements. Suspension can be agreed by the appropriate College Committee for other reasons. The arrangements for suspension of study shall be in accordance with those of the Research Councils.

- may be appointed as an examiner. The internal examiner shall not undertake any duties which have been allocated to the Convener (see §5.5 and the Guidance Notes for the Degree of Doctor of Philosophy by Research) and shall act as an examiner in the normal way.
- 5.4 A candidate for the Degree of Doctor of Philosophy with Integrated Study must present himself or herself for oral or other examination by the Committee of Examiners on the subject matter of the thesis. This requirement for an oral examination shall be observed at the first submission of the thesis.
- 5.5 A Convener shall be appointed by the Dean of Graduate Studies to convene the oral examination and to report on the agreed recommendations of the Committee of Examiners to the appropriate College Committee.

The Convener will be responsible for the following:

- a) making the arrangements for an oral examination and ensuring that this is normally held no later than three months after the submission of the thesis;
- b) attending the whole examination and ensuring that it is conducted in a fair manner and is of a reasonable duration;
- c) arranging for the report stating the recommendation of the Committee of Examiners to be signed at the conclusion of the examination:
- d) after the oral, co-ordinating the completion of a joint report detailing the requirements for revision or resubmission and providing this to the candidate;
- 5.6 The supervisor shall not normally be present at the oral examination but shall be available to the Committee of Examiners for consultation. If the candidate makes a request in writing to the Convener for the supervisor to be present at the oral examination, this should normally be permitted. The request should be made no later than one week before the date of the oral.
- 5.7 Where a candidate has been permitted to resubmit a thesis, an oral shall also be held other than in exceptional circumstances, where the Convener, on the recommendation of the Committee of Examiners, may seek the agreement of the Dean of Graduate Studies to set aside the requirement for an oral examination after resubmission. In such circumstances the agreement of the candidate must be obtained, otherwise the candidate shall have the right to insist on an oral being held.
- 5.8 Where a candidate has been permitted to resubmit the thesis, it shall normally be on one occasion only. The resubmitted thesis shall be examined by the Committee of Examiners appointed for the first submission or by the Committee of Examiners appointed for the second submission. If the Committee of Examiners considers that the thesis has not achieved the standard required for the Degree but is of sufficient merit to be worthy of an award, it may recommend that the candidate revise the thesis and submit it for consideration for a Masters by Research degree.
- 6. Requirements for Early Exit Awards of Masters Degree, Postgraduate Diploma and Postgraduate Certificate

The following provisions will apply where a candidate does not satisfy the requirements for award of the degree of Doctor of Philosophy with Integrated Study

- 6.1 A candidate who has achieved a grade point average⁴⁷ of 12 (equivalent to C3) or above in the taught courses referred to in §2(a), with at least 75% of these credits at grade D3 or better, and all credits at grade F or above and who has completed a 60 credit dissertation at grade D or better will be eligible for the award of a Taught Masters degree in a designation approved by the Higher Degrees Committee or equivalent.
- 6.2 A candidate who has achieved at the first attempt a grade point average of 15 (equivalent to B3) or above for the taught courses referred to in §2(a) and grade B3 or above for the dissertation will be eligible for the award with Merit. Where the grade point average for the taught courses falls within the range 14.1 and 14.9 the Board of Examiners⁴⁹ shall have discretion to make the award with Merit. No discretion can be applied in relation to the grade required for the dissertation.
- 6.3 A candidate who has achieved at the first attempt a grade point average of 18 (equivalent to A5) or above for the taught courses described in §2(a) and grade A5 or above for the dissertation will be eligible for the award with Distinction. Where the grade point average for the taught courses falls within the range 17.1 to 17.9 the Board of Examiners shall have the discretion to make the award with Distinction. No discretion can be applied in relation to the grade required for the dissertation.
- 6.4 A candidate who has achieved a grade point average of 9 (equivalent to D3) in 120 credits, with not less than 80 of these credits at grade D3 or above will be eligible for the award of a Postgraduate Diploma.
- 6.5 A candidate who has achieved a grade point average of 9 (equivalent to D3) in 60 credits, with not less than 40 of these credits at grade D3 or above will be eligible for the award of a Postgraduate Certificate.

⁴⁹ The 'Board of Examiners' refers to the Board for the relevant designation of the award.

Degree of DSc SciEng.45 (PG)

6.6 The awards of Postgraduate Diploma and Postgraduate Certificate may be granted with Merit or Distinction according to the criteria specified in relation to the taught courses in §6.2 and §6.3.

7. Particular conditions relating to study or research in the Colleges are set out below. A candidate must also comply with detailed requirements for research degrees published by the relevant Graduate School.

Science & Engineering

To qualify for the award of a PhD with Integrated Study, a candidate must have demonstrated to a Committee of Examiners by the presentation of a thesis and by performance in an oral examination that he or she is capable of:

- a) pursuing original research in his or her specific field of study, and
- b) relating his or her results to the general body of knowledge in the field, and
- c) presenting his or her results in a critical and scholarly manner.

8. Research in External Institutions

As permitted in §1, College Graduate Schools may allow the candidate's study or research to be conducted in an institution external to the University of Glasgow. The period of study of research elsewhere shall not normally exceed 12 months except where that study or research is undertaken in an institution or location approved by the appropriate College Committee. The choice of an external institution will be determined *ad hoc* and only where there exists clear alignment of the candidate's proposed study or research with the aims and objectives of the institution proposed, and where the institution can demonstrate ability to provide an appropriate level of supervision of the candidate. A full-time member of staff of a recognised Institution may be nominated by the College Graduate School on behalf of Senate *either* as a supervisor *or* as an internal examiner although such an individual may not be nominated as an examiner if he or she has previously supervised the candidate's work. In cases where an employee of the institution acts as supervisor or internal examiner, a member of staff from an appropriate subject area in the University will also be appointed.

The institutions recognised for the purpose of this regulation are as listed in §6 of the Regulations for the Degree of Doctor of Philosophy.

9. Submission of Thesis

In submitting a thesis a candidate must state, generally in the preface and specifically in the notes, the sources from which his or her information is derived, the extent to which he or she has availed himself or herself of the work of others, and the portions of the thesis which he or she claims as original. The thesis must be in English.

A candidate must submit three copies of the thesis. The summary must be an adequate and informative abstract of the work, suitable for publication by the University. The submitted copies of the thesis may be soft-bound but otherwise should generally conform to the British Standard Institution's *Recommendations for the presentation of theses* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.

In signing a submission form, the supervisor is confirming that the work was undertaken by the candidate. The wording of the form makes it clear that the supervisor's signature does not endorse that the work has been completed nor does it indicate that the thesis has achieved the required standard for the award of the degree. A candidate may submit a thesis against the advice of the supervisor but in such cases the supervisor may state the position in a report submitted to the Convener of the Committee of Examiners.

If approved for the degree, one hard-bound copy of the thesis and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/gettingstarted/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

Subjects of Integrated Study in which the Degree may be offered are:

Schedule A

Sensor & Imaging Systems

Schedule B

Mathematical Sciences

DEGREE OF DOCTOR OF SCIENCE

RESOLUTION

The Degree of Doctor of Science is awarded under Resolution No. 577 of the University Court, which came into force on 1 September 2007. The following are the relevant provisions of that Resolution.

1. The Degree of Doctor of Science (DSc) may be awarded by the Senate of the University of Glasgow.

SciEng.46 (PG) Degree of DSc

2. The Senate may make regulations, which are subject to the approval of the University Court, governing the award of the Degree – these are set out in the section entitled 'Regulations'.

- 3. All candidates for the Degree of Doctor of Science shall present a thesis or a published memoir or work which shall be a record of original research undertaken by the candidate in relation to science, and shall be accompanied by a declaration signed by him or her that the work has been done and the thesis composed by himself or herself. In the case of collaboration, the candidate's individual contribution must be clearly defined. The thesis, or a major part of it, shall have been published either as a book or in periodicals of recognised standing, and shall be presented in such manner as the Senate may by regulation prescribe.
- 4. The thesis shall be examined by one or more examiners appointed by the Senate from among the professors, readers and lecturers in the University, and by one or more additional examiners appointed by the University Court on the recommendation of the Senate. The reports of the examiners shall be submitted independently to the appropriate College Committee which shall, if it thinks fit, make a recommendation thereon to the Senate. The candidate shall be approved for the Degree only if, in the opinion of one of the Faculties of Science and of the examiners, the thesis constitutes an original, substantial and authoritative contribution to scientific knowledge.
- 5. The Degree of Doctor of Science shall not be conferred upon a person who has not satisfied the conditions set forth in the Regulations; provided always that it shall be in the power of the Senate to award the Degree as an Honorary degree under such regulations as may be made by the Senate with the approval of the University Court.

- 1. The following categories of persons may, after being found by the College of Medical, Veterinary & Life Sciences or the College of Science & Engineering to possess *prima facie* a qualification for the Degree, be admitted as candidates for the Degree of Doctor of Science:
 - a) A graduate of the University of Glasgow after the expiry of seven years from the date of his or her first graduation in the University of Glasgow.
 - b) Any person who has held for a period or periods totalling at least four years such office or offices in the University of Glasgow as the University Court, on the recommendation of the Senate, may approve; provided either that he or she is a graduate of not less than seven years' standing of a university likewise approved or that he or she has held for not less than seven years some other qualification specially recognised by the University Court, on the recommendation of the Senate, as equivalent for this purpose.
 - c) Any person who has carried out research work, in terms of the Ordinance or Resolution for the time being in force for the regulation of research, for at least five years in the University of Glasgow (or in a college affiliated thereto); provided always that he or she is a graduate of not less than seven years' standing of a university approved by the University Court, on the recommendation of the Senate.
- 2. For the purpose of Clause 1 of these Regulations, every prospective candidate for the Degree shall submit to the relevant College a summary of his or her proposed thesis, together with a list of the publications that are to be included in the thesis. The summary should be no longer than one thousand words. Only if it is the opinion of the College and of any adviser whom it may consult that:
 - a) the work described properly falls into the area of science; and
 - b) it is likely to be of the required standard
 - will the candidate be considered to possess prima facie the necessary qualification.
- 3. Each qualified candidate must submit two copies of his or her thesis: both copies, if approved for the Degree, shall become the property of the University.
- 4. In addition to making the declaration required under Clause 3 of the Resolution governing this Degree, the candidate must identify any material in the DSc submission which has been, or is about to be, included in a submission by the candidate for any other higher degree or diploma in the University of Glasgow or for a higher degree or diploma in another institution; and he or she must lodge, together with his or her DSc submission, either a copy of such other submission (if available) or a precise statement of its scope. Material which has been included in a successful submission for another higher degree or diploma will not be taken into account in assessing a submission for the Degree of DSc of the University of Glasgow.
- 5. Before acceptance for adjudication, a thesis, or an important part of it, shall have been published either as a book or in periodicals of recognised standing. The thesis may be presented in the form of a single memoir or writing containing a connected account of the candidate's research or work. Published papers under various headings may be submitted in lieu of a single thesis provided that they are accompanied by a statement showing the relationship between the various studies and placing the whole work critically into perspective with the general state of knowledge in the field of investigation to which the candidate's researches are related.
- 6. Material other than books must be bound in a volume in cloth with stiff boards. The layout and binding of the thesis should generally conform to the Recommendations for the presentation of theses and dissertations published by the British Standards Institution (BS4821:1990) which is available for consultation in the University

Library or may be obtained from the College Graduate School. The thesis must include a summary (500-1,000 words) which must be an adequate and informative abstract of the work. The summary should be bound with the thesis where possible; and three separate copies of the summary should also be provided.

- 7. If approved for the Degree, an electronic copy of the thesis, this conforming to specifications published at http://theses.gla.ac.uk/format.html, shall also be deposited with the University Library. It is the University's normal practice to make a bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, *Enlighten*. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.
- 8. No candidate may apply for re-examination for the Degree of DSc until the elapse of at least three years from the date of the previous submission.

NON GENERIC DOCTORATE REGULATIONS

DEGREE OF DOCTOR OF ENGINEERING IN APPLIED PHOTONICS

The Degree of Doctor of Engineering in Applied Photonics is offered by the University of Glasgow, as part of the Centre for Doctoral Training (CDT) in Applied Photonics Technologies with partner institutions Heriot-Watt University, the University of Glasgow, the University of Dundee, the University of St. Andrews and the University of Strathclyde. The CDT is conducted through a Management Committee, which has overall responsibility for the strategy, priorities and management of the Centre, and a Course Committee, to which some of the academic functions pertaining to the individual EngD programmes are devolved from the partner institutions. The programme is run in co-operation with industrial companies providing sponsorship of students.

RESOLUTION

The Degree of Doctor of Engineering in Applied Photonics is governed by Resolution 671 of the University Court, which at the time of publication was in draft form, with provision that:

- The Degree of Doctor of Engineering in Applied Photonics (EngD) may be awarded by the Senate of the University of Glasgow in the College of Science & Engineering;
- 2. The Senate shall have power to make such regulations governing the award of the Degree as may be approved by the University Court;
- 3. A candidate for the Degree shall undertake study and research in accordance with the provisions below, and shall present either a thesis or a themed portfolio;
- 4. The Degree of Doctor of Engineering in Applied Photonics shall in no case be conferred on persons who have not satisfied the conditions set out below, and shall not be conferred as an Honorary Degree;

The following regulations are supplemented by a series of PhD Guidance Notes for students, which additionally apply to the Doctor of Engineering in Applied Photonics unless specifically excluded by regulation, and which are available within the current on-line *Calendar* which can be found at www.gla.ac.uk/services/senateoffice/calendar.

- 1. A research student who has pursued in the University of Glasgow, or in an institution recognised and approved for the purpose, a programme of prescribed study and industrially-focussed research, may offer himself or herself for the Degree of Doctor of Engineering in Applied Photonics under the following conditions:
 - a) that he or she has obtained a degree in any Scottish university, or in another university or college specially recognised for the purpose of this Section by the University Court on the recommendation of the Senate (provided always that a diploma or certificate recognised in like manner as equivalent to a degree may be accepted in place of a degree). The normal standard of admission for a research student will be that of a Degree with First or Upper Second Class Honours in a Science or Engineering discipline of a Scottish University, or an approved equivalent qualification;
 - b) that he or she has produced to the Senate evidence of satisfactory progress in the prescribed study and research undertaken by him or her;
 - c) that he or she will have been registered for such study on a full-time basis for a period of not less than four academic years, or on a part-time basis for a period normally of not less than eight academic years;
 - d) that for each candidate undertaking a programme of study and research leading to the Degree there must be one or more sponsoring companies, or equivalent organisations, that will be nominated by the Course Committee:
 - e) that each candidate will be supported by a supervision team which will normally include the primary academic supervisor, an industrial adviser and other academic staff as required to offer expertise in guiding and supporting the candidate's research project. The sponsoring company or companies will appoint an industrial

- adviser for the duration of the programme and, to ensure continuity of the research project, provide an alternative industrial adviser should the first appointee be unable to continue in the role;
- f) that within the prescribed duration of the programme, each candidate will be required to achieve 180 credits at the appropriate standard (50% average across all taught modules, or an average of at least C3 [aggregation score 12]) from the portfolio of courses prescribed by the Course Committee in the programme documentation;
- g) that he or she has pursued such formal research training as set down by the Course Committee.
- 2.1 Each candidate for the Degree of Doctor of Engineering in Applied Photonics Technologies shall present for the approval of the Senate a thesis or a themed portfolio which shall embody the results of the research, and which shall be accompanied by a declaration signed by the candidate that the thesis or themed portfolio has been composed by himself or herself. For a candidate permitted by the supervision team to submit a themed portfolio of a number of projects, they must be in the standard format and must include the following:
 - i) a succinct bound summary which describes the contribution to knowledge and innovation demonstrated by the candidate;
 - ii) clear evidence, either directly or indirectly, of the relationship between each project through demonstrable relevance to the doctoral programme.
- 2.2 A thesis or themed portfolio for the degree of EngD shall normally be presented for examination within five years from the date when a candidate first registered for full-time study. Where the College has approved suspension of study for a period of time, the maximum period of study permitted shall be equivalent to the duration for full-time study plus the approved period of suspension adjusted proportionately.
- 2.3 Where the candidate has fulfilled the minimum period of full-time study required by the regulations, and has not submitted the thesis or themed portfolio for examination, he or she shall be registered with a 'thesis pending' status. If further research project work is required, the College may require the candidate to register as a full-time or part-time student. Failure to meet College requirements for progress without good cause, may result in exclusion from further study.
- 2.4 The thesis or themed portfolio shall be examined by one or more examiners appointed by the Senate from among the experienced academic staff of the University, and by one or more External Examiners appointed by the University Court on the recommendation of the Senate. No person who has been involved in the direct supervision of the research student may be appointed as an examiner. The internal examiner shall not undertake any duties which have been allocated to the Convener (see §2.6 and Guidance Note 3) and shall act as an examiner in the normal way.
- 2.5 A candidate for the Degree of EngD must present himself or herself for oral or other examination by the Committee of Examiners on the subject matter of the thesis or themed portfolio and its context. This requirement for an oral examination shall be observed at the first submission of the thesis or themed portfolio.
- 2.6 A Convener shall be appointed by the Convener of the Higher Degrees Committee or its equivalent committee to convene the oral examination and to report on the agreed recommendations of the Committee of Examiners to the appropriate College Committee.

The Convener will be responsible for the following:

- a) making the arrangements for an oral examination and ensuring that this is normally held no later than three months after the submission of the thesis or themed portfolio;
- b) attending the whole examination and ensuring that it is conducted in a fair manner and is of a reasonable duration;
- c) arranging for the report stating the recommendation of the Committee of Examiners to be signed at the conclusion of the examination;
- d) after the oral, co-ordinating the completion of a joint report detailing the requirements for revision or resubmission and providing this to the candidate;
- e) recommending to the Higher Degrees Committee the appointment of an additional examiner in instances where agreement has not been reached. The additional examiner will normally be an External Examiner.
- 2.7 The supervisor shall not normally be present at the oral examination but shall be available to the Committee of Examiners for consultation. If the candidate makes a request in writing to the Convener for the supervisor to be present at the oral examination, this should normally be permitted. The request should be made no later than one week before the date of the oral.

⁵⁰ A College Higher Degrees Committee or equivalent may permit the period of study to be suspended for a defined period when a student is ill or has other personal circumstances which prevent the student from continuing the research. Suspension can be agreed by the College Higher Degrees Committee or equivalent for other reasons, such as student internships. The arrangements for suspension of study shall be in accordance with those of the Research Councils.

- 2.8 Where a candidate has been permitted to resubmit a thesis or themed portfolio for examination, an oral shall also be held other than in exceptional circumstances, where the Convener, on the recommendation of the Committee of Examiners, may seek the agreement of the Dean of Graduate Studies to set aside the requirement for an oral examination after resubmission. In such circumstances the agreement of the candidate must be obtained, otherwise the candidate shall have the right to insist on an oral being held.
- 2.9 Where a candidate has been permitted to resubmit the thesis or themed portfolio, it shall normally be on one occasion only. The resubmitted thesis shall be examined by the Committee of Examiners appointed for the first submission or by the Committee of Examiners appointed for the second submission. If the Committee of Examiners considers that the thesis has not achieved the standard required for the Degree of EngD but is of sufficient merit to be worthy of an award, it may recommend that the candidate revise the thesis and submit it for consideration for a Masters degree.

3. Submission of Thesis or Themed Portfolio

In submitting a thesis or themed portfolio a candidate must state, generally in the preface and specifically in the notes, the sources from which his or her information is derived, the extent to which he or she has availed himself or herself of the work of others, and the portions of the thesis or themed portfolio which he or she claims as original. The thesis must be in English.

A candidate must submit three copies of the thesis or themed portfolio which must include a summary of 250 - 1000 words. The summary must be an adequate and informative abstract of the work, suitable for publication by the University. The submitted copies of the thesis may be soft-bound but otherwise should generally conform to the British Standard Institution's *Recommendations for the presentation of theses* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.

In signing a submission form, the supervisor is confirming that the work was undertaken by the candidate. The wording of the form makes it clear that the supervisor's signature does not endorse that the work has been completed nor does it indicate that the thesis or themed portfolio has achieved the required standard for the award of the degree. A candidate may submit a thesis or themed portfolio against the advice of the supervisor but in such cases the supervisor may state the position in a report submitted to the Convener of the Committee of Examiners.

If approved for the degree, one hard-bound copy of the thesis or themed portfolio and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/gettingstarted/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

DEGREE OF DOCTOR OF ENGINEERING IN OPTICS & PHOTONICS TECHNOLOGIES

The Degree of Doctor of Engineering in Optics & Photonics Technologies is offered by the University of Glasgow, as part of the Industrial Doctorate Centre (IDC) in Optics & Photonics Technologies with partner institutions Heriot-Watt University, the University of Glasgow, the University of St. Andrews and the University of Strathclyde. The IDC is conducted through a Management Committee, which has overall responsibility for the strategy, priorities and management of the Centre, and a Course Committee, to which some of the academic functions pertaining to the individual EngD programmes are devolved from the partner institutions. The programme is run in co-operation with industrial companies providing sponsorship of students.

RESOLUTION

The Degree of Doctor of Engineering in Optics & Photonics Technologies is governed by Resolution 618 of the University Court which came into effect on 1 September 2010, with provision that:

- 1. The Degree of Doctor of Engineering (EngD) in Optics & Photonics Technologies may be awarded by the Senate of the University of Glasgow in the College of Science and Engineering (College);
- The Senate shall have power to make such regulations governing the award of the Degree as may be approved by the University Court;
- 3. A candidate for the Degree shall undertake study and research in accordance with the provisions below, and shall present either a thesis or a themed portfolio;
- 4. The Degree of Doctor of Engineering in Optics & Photonics Technologies shall in no case be conferred on persons who have not satisfied the conditions set out below, and shall not be conferred as an Honorary Degree;

The following regulations are supplemented by a series of PhD Guidance Notes for students, which additionally apply to the Doctor of Engineering in Optics & Photonics Technologies unless specifically excluded by regulation, and which are available within the current on-line *Calendar* which can be found at www.gla.ac.uk/services/senateoffice/policies/calendar/.

- 1. A research student who has pursued in the University of Glasgow, or in an institution recognised and approved for the purpose, a programme of prescribed study and industrially-focussed research, may offer himself or herself for the Degree of Doctor of Engineering in Optics & Photonics Technologies under the following conditions:
 - a) that he or she has obtained a degree in any Scottish university, or in another university or college specially recognised for the purpose of this Section by the University Court on the recommendation of the Senate (provided always that a diploma or certificate recognised in like manner as equivalent to a degree may be accepted in place of a degree). The normal standard of admission for a research student will be that of a Degree with First or Upper Second Class Honours in a Science or Engineering discipline of a Scottish University, or an approved equivalent qualification;
 - b) that he or she has produced to the Senate evidence of satisfactory progress in the prescribed study and research undertaken by him or her;
 - c) that he or she will have been registered for such study on a full-time basis for a period of not less than four academic years, or on a part-time basis for a period normally of not less than eight academic years;
 - d) that for each candidate undertaking a programme of study and research leading to the Degree there must be one or more sponsoring companies, or equivalent organisations, that will be nominated by the Course Committee;
 - e) that each candidate will be supported by a supervision team which will normally include the primary academic supervisor, a second academic supervisor, an industrial adviser and other academic staff as required to offer expertise in guiding and supporting the candidate's research project. The sponsoring company or companies will appoint an industrial adviser for the duration of the programme and, to ensure continuity of the research project, provide an alternative industrial adviser should the first appointee be unable to continue in the role;
 - f) that within the prescribed duration of the programme, each candidate will be required to achieve 180 credits at the appropriate standard (50% average across all taught modules, or an average of at least C3 [aggregation score 12]) from the portfolio of courses prescribed by the Course Committee in the programme documentation;
 - g) that he or she has pursued such formal research training as set down by the Course Committee.
- 2.1 Each candidate for the Degree of Doctor of Engineering in Optics & Photonics Technologies shall present for the approval of the Senate a thesis or a themed portfolio which shall embody the results of the research, and which shall be accompanied by a declaration signed by the candidate that the thesis or themed portfolio has been composed by himself or herself. For a candidate permitted by the supervision team to submit a themed portfolio of a number of projects, they must be in the standard format and must include the following:
 - a succinct bound summary which describes the contribution to knowledge and innovation demonstrated by the candidate;
 - ii) clear evidence, either directly or indirectly, of the relationship between each project through demonstrable relevance to the doctoral programme.
- 2.2 A thesis or themed portfolio for the degree of EngD shall normally be presented for examination within five years from the date when a candidate first registered for full-time study, or within nine years from the date when he or she first registered for part-time study. Where the College has approved suspension of study for a period of time⁵¹, the maximum period of study permitted shall be equivalent to the duration for full-time or part-time study plus the approved period of suspension adjusted proportionately.
- 2.3 Where the candidate has fulfilled the minimum period of full-time study, or the minimum period of part-time study, required by the regulations, and has not submitted the thesis or themed portfolio for examination, he or she shall be registered with a 'thesis pending' status. If further research project work is required, the College may require the candidate to register as a full-time or part-time student. Failure to meet College requirements for progress without good cause, may result in exclusion from further study.
- 2.4 The thesis or themed portfolio shall be examined by one or more examiners appointed by the Senate from among the experienced academic staff of the University, and by one or more External Examiners appointed by the University Court on the recommendation of the Senate. Normally, two External Examiners shall be appointed with one external examiner being responsible for assessing the candidate's technical ability and the other, the candidate's management skills and understanding of the industrial context of the research project. No person who has been involved in the direct supervision of the research student may be appointed as an examiner. The internal examiner shall not undertake any duties which have been allocated to the Convener (see §2.6 and Guidance Note 3) and shall act as an examiner in the normal way.

⁵¹ The appropriate College Committee may permit the period of study to be suspended for a defined period when a student is ill or has other personal circumstances which prevent the student from continuing the research or taught elements. Suspension can be agreed by the appropriate College Committee for other reasons. The arrangements for suspension of study shall be in accordance with those of the Research Councils.

- 2.5 A candidate for the Degree of EngD must present himself or herself for oral or other examination by the Committee of Examiners on the subject matter of the thesis or themed portfolio and its context. This requirement for an oral examination shall be observed at the first submission of the thesis or themed portfolio.
- 2.6 A Convener shall be appointed by the Convener of the Higher Degrees Committee or its equivalent committee to convene the oral examination and to report on the agreed recommendations of the Committee of Examiners to the appropriate College Committee.

The Convener will be responsible for the following:

- a) making the arrangements for an oral examination and ensuring that this is normally held no later than three months after the submission of the thesis or themed portfolio;
- b) attending the whole examination and ensuring that it is conducted in a fair manner and is of a reasonable duration:
- c) arranging for the report stating the recommendation of the Committee of Examiners to be signed at the conclusion of the examination;
- d) after the oral, co-ordinating the completion of a joint report detailing the requirements for revision or resubmission and providing this to the candidate;
- e) recommending to the Higher Degrees Committee the appointment of an additional examiner in instances where agreement has not been reached. The additional examiner will normally be an External Examiner.
- 2.7 The supervisor shall not normally be present at the oral examination but shall be available to the Committee of Examiners for consultation. If the candidate makes a request in writing to the Convener for the supervisor to be present at the oral examination, this should normally be permitted. The request should be made no later than one week before the date of the oral.
- 2.8 Where a candidate has been permitted to resubmit a thesis or themed portfolio for examination, an oral shall also be held other than in exceptional circumstances, where the Convener, on the recommendation of the Committee of Examiners, may seek the agreement of the Dean of Graduate Studies to set aside the requirement for an oral examination after resubmission. In such circumstances the agreement of the candidate must be obtained, otherwise the candidate shall have the right to insist on an oral being held.
- 2.9 Where a candidate has been permitted to resubmit the thesis or themed portfolio, it shall normally be on one occasion only. The resubmitted thesis shall be examined by the Committee of Examiners appointed for the first submission or by the Committee of Examiners appointed for the second submission. If the Committee of Examiners considers that the thesis has not achieved the standard required for the Degree of EngD but is of sufficient merit to be worthy of an award, it may recommend that the candidate revise the thesis and submit it for consideration for a Masters degree.

3. Submission of Thesis or Themed Portfolio

In submitting a thesis or themed portfolio a candidate must state, generally in the preface and specifically in the notes, the sources from which his or her information is derived, the extent to which he or she has availed himself or herself of the work of others, and the portions of the thesis or themed portfolio which he or she claims as original. The thesis must be in English.

A candidate must submit three copies of the thesis or themed portfolio which must include a summary of 250 - 1000 words. The summary must be an adequate and informative abstract of the work, suitable for publication by the University. The submitted copies of the thesis may be soft-bound but otherwise should generally conform to the British Standard Institution's *Recommendations for the presentation of theses* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.

In signing a submission form, the supervisor is confirming that the work was undertaken by the candidate. The wording of the form makes it clear that the supervisor's signature does not endorse that the work has been completed nor does it indicate that the thesis or themed portfolio has achieved the required standard for the award of the degree. A candidate may submit a thesis or themed portfolio against the advice of the supervisor but in such cases the supervisor may state the position in a report submitted to the Convener of the Committee of Examiners.

If approved for the degree, one hard-bound copy of the thesis or themed portfolio and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

DEGREE OF DOCTOR OF ENGINEERING IN SENSOR & IMAGING SYSTEMS

The Degree of Doctor of Engineering in Sensor & Imaging Systems is offered by the University of Glasgow with partner institutions Heriot-Watt University, the University of Edinburgh, and the University of Strathclyde. The EngD Programme

is conducted through a Management Committee, which has overall responsibility for the strategy, priorities and management of the EngD Programme, and a Programme Committee, to which some of the academic functions pertaining to the individual EngD programmes are devolved from the partner institutions. The programme is run in cooperation with industrial companies providing sponsorship of students.

RESOLUTION

The Degree of Doctor of Engineering in Sensor & Imaging Systems is governed by Resolution No. 660, which at the time of publication was in draft form, with provision that:

- The Degree of Doctor of Engineering (EngD) in Sensor & Imaging Systems may be awarded by the Senate of the University of Glasgow in the College of Science and Engineering (College);
- The Senate shall have power to make such regulations governing the award of the Degree as may be approved by the University Court;
- 3. A candidate for the Degree shall undertake study and research in accordance with the provisions below, and shall present either a thesis or a themed portfolio;
- 4. The Degree of Doctor of Engineering in Sensor & Imaging Systems shall in no case be conferred on persons who have not satisfied the conditions set out below, and shall not be conferred as an Honorary Degree;

The following regulations are supplemented by a series of PhD Guidance Notes for students, which additionally apply to the Doctor of Engineering in Sensor & Imaging Systems unless specifically excluded by regulation, and which are available within the current on-line *Calendar* which can be found at www.gla.ac.uk/services/senateoffice/policies/calendar/.

- A research student who has pursued in the University of Glasgow, or in an institution recognised and approved for the purpose, a programme of prescribed study and industrially-focused research, may offer himself or herself for the Degree of Doctor of Engineering in Sensor and Imaging Systems under the following conditions:
 - a) that he or she has obtained a degree in any Scottish university, or in another university or college specially recognised for the purpose of this Section by the University Court on the recommendation of the Senate (provided always that a diploma or certificate recognised in like manner as equivalent to a degree may be accepted in place of a degree). The normal standard of admission for a research student will be that of a Degree with First or Upper Second Class Honours in a Science or Engineering discipline of a Scottish University, or an approved equivalent qualification;
 - b) that he or she has produced to the Senate evidence of satisfactory progress in the prescribed study and research undertaken by him or her;
 - that he or she will have been registered for such study on a full-time basis for a period of not less than four academic years;
 - d) that for each candidate undertaking a programme of study and research leading to the Degree there must be one or more sponsoring companies, or equivalent organisations, that will be nominated by the Course Committee:
 - e) that each candidate will be supported by a supervision team which will normally include the primary academic supervisor, a second academic supervisor, an industrial adviser and other academic staff as required to offer expertise in guiding and supporting the candidate's research project. The sponsoring company or companies will appoint an industrial adviser for the duration of the programme and, to ensure continuity of the research project, provide an alternative industrial adviser should the first appointee be unable to continue in the role;
 - f) that within the prescribed duration of the programme, each candidate will be required to achieve 180 credits at the appropriate standard (50% average across all taught modules, or an average of at least C3 [aggregation score 12]) from the portfolio of courses prescribed by the Course Committee in the programme documentation;
 - g) that he or she has pursued such formal research training as set down by the Course Committee.
- 2.1 Each candidate for the Degree of Doctor of Sensor & Imaging Systems shall present for the approval of the Senate a thesis or a themed portfolio which shall embody the results of the research, and which shall be accompanied by a declaration signed by the candidate that the thesis or themed portfolio has been composed by himself or herself. For a candidate permitted by the supervision team to submit a themed portfolio of a number of projects, they must be in the standard format and must include the following:
 - a succinct bound summary which describes the contribution to knowledge and innovation demonstrated by the candidate;
 - ii) clear evidence, either directly or indirectly, of the relationship between each project through demonstrable relevance to the doctoral programme.
- 2.2 A thesis or themed portfolio for the degree of EngD shall normally be presented for examination within five years from the date when a candidate first registered for full-time study. Where the College has approved suspension of

study for a period of time, ⁵² the maximum period of study permitted shall be equivalent to the duration for full-time study plus the approved period of suspension adjusted proportionately.

- 2.3 Where the candidate has fulfilled the minimum period of full-time study required by the regulations and has not submitted the thesis or themed portfolio for examination, he or she shall be registered with a 'thesis pending' status. If further research project work is required, the College may require the candidate to register as a full-time student. Failure to meet College requirements for progress without good cause, may result in exclusion from further study.
- 2.4 The thesis or themed portfolio shall be examined by one or more examiners appointed by the Senate from among the experienced academic staff of the University, and by one or more External Examiners appointed by the University Court on the recommendation of the Senate. Normally, two External Examiners shall be appointed with one external examiner being responsible for assessing the candidate's technical ability and the other, the candidate's management skills and understanding of the industrial context of the research project. No person who has been involved in the direct supervision of the research student may be appointed as an examiner. The internal examiner shall not undertake any duties which have been allocated to the Convener (see §2.6 and Guidance Note 3) and shall act as an examiner in the normal way.
- 2.5 A candidate for the Degree of EngD must present himself or herself for oral or other examination by the Committee of Examiners on the subject matter of the thesis or themed portfolio and its context. This requirement for an oral examination shall be observed at the first submission of the thesis or themed portfolio.
- 2.6 A Convener shall be appointed by the Dean of Graduate Studies to convene the oral examination and to report on the agreed recommendations of the Committee of Examiners to the appropriate College Committee.

The Convener will be responsible for the following:

- a) making the arrangements for an oral examination and ensuring that this is normally held no later than three months after the submission of the thesis or themed portfolio;
- b) attending the whole examination and ensuring that it is conducted in a fair manner and is of a reasonable duration;
- c) arranging for the report stating the recommendation of the Committee of Examiners to be signed at the conclusion of the examination;
- d) after the oral, co-ordinating the completion of a joint report detailing the requirements for revision or resubmission and providing this to the candidate;
- e) recommending to the Graduate School Board the appointment of an additional examiner in instances where agreement has not been reached. The additional examiner will normally be an External Examiner.
- 2.7 The supervisor shall not normally be present at the oral examination but shall be available to the Committee of Examiners for consultation. If the candidate makes a request in writing to the Convener for the supervisor to be present at the oral examination, this should normally be permitted. The request should be made no later than one week before the date of the oral.
- 2.8 Where a candidate has been permitted to resubmit a thesis or themed portfolio for examination, an oral shall also be held other than in exceptional circumstances, where the Convener, on the recommendation of the Committee of Examiners, may seek the agreement of the Dean of Graduate Studies to set aside the requirement for an oral examination after resubmission. In such circumstances the agreement of the candidate must be obtained, otherwise the candidate shall have the right to insist on an oral being held.
- 2.9 Where a candidate has been permitted to resubmit the thesis or themed portfolio, it shall normally be on one occasion only. The resubmitted thesis shall be examined by the Committee of Examiners appointed for the first submission or by the Committee of Examiners appointed for the second submission. If the Committee of Examiners considers that the thesis has not achieved the standard required for the Degree of EngD but is of sufficient merit to be worthy of an award, it may recommend that the candidate revise the thesis and submit it for consideration for a Masters degree.

3. Submission of Thesis or Themed Portfolio

In submitting a thesis or themed portfolio a candidate must state, generally in the preface and specifically in the notes, the sources from which his or her information is derived, the extent to which he or she has availed himself or herself of the work of others, and the portions of the thesis or themed portfolio which he or she claims as original. The thesis must be in English.

A candidate must submit four copies of the thesis or themed portfolio which must include a summary of 250 - 1000 words. The summary must be an adequate and informative abstract of the work, suitable for publication by the University. The submitted copies of the thesis may be soft-bound but otherwise should generally conform to the

⁵² The appropriate College Committee may permit the period of study to be suspended for a defined period when a student is ill or has other personal circumstances which prevent the student from continuing the research or taught elements. Suspension can be agreed by the appropriate College Committee for other reasons. The arrangements for suspension of study shall be in accordance with those of the Research Councils.

SciEng.54 (PG) Degree of DSc(Eng)

British Standard Institution's *Recommendations for the presentation of theses* (BS4821:1990) which is available for consultation in the University Library or from the College Graduate School.

In signing a submission form, the supervisor is confirming that the work was undertaken by the candidate. The wording of the form makes it clear that the supervisor's signature does not endorse that the work has been completed nor does it indicate that the thesis or themed portfolio has achieved the required standard for the award of the degree. A candidate may submit a thesis or themed portfolio against the advice of the supervisor but in such cases the supervisor may state the position in a report submitted to the Convener of the Committee of Examiners.

If approved for the degree, one hard-bound copy of the thesis or themed portfolio and one electronic copy shall be deposited with the University Library. The bound copy should normally be produced to the standard defined in BS4821:1990, and the electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.

DEGREE OF DOCTOR OF ENGINEERING IN SYSTEM LEVEL INTEGRATION

Students admitted to this programme in or before 2012-13 should refer to the *University Calendar* for the session in which they entered the programme. The Doctor of Engineering in System Level Integration is offered by the University of Edinburgh, the University of Glasgow, Heriot-Watt University and the University of Strathclyde, and the awards are made in the name of all four Universities.

DEGREE OF DOCTOR OF SCIENCE IN ENGINEERING

The Degree of Doctor of Science in Engineering is awarded under Ordinance 462 (Glasgow No. 128), which came into force in September, 1964. The following are the relevant provisions of that Ordinance.

- 1. The Degree of Doctor of Science in Engineering (DSc(Eng)) may be awarded by the University of Glasgow.
- 2. The following categories of persons may be admitted as candidates for the Degree of Doctor of Science in Engineering:
 - a) A graduate of the University of Glasgow after the expiry of seven years from the date of his first graduation in the University of Glasgow.
 - b) Any person who has held for a period or periods totalling at least four years such office or offices in the University of Glasgow as the University Court, on the recommendation of the Senate, may approve; provided either that he is a graduate of not less than seven years' standing of a University likewise approved or that he has held for not less than seven years some other qualification specially recognised by the University Court, on the recommendation of the Senate, as equivalent for this purpose.
 - c) Any person who has carried out research work, in terms of the Ordinance for the time being in force for the regulation of research, for at least five years in the University of Glasgow (or in a College affiliated thereto); provided always that he is a graduate of not less than seven years' standing of a University approved by the University Court, on the recommendation of the Senate.
- 3. All candidates for the Degree of Doctor of Science in Engineering shall present a thesis or a published memoir of work, which shall be a record of original work in relation to engineering science undertaken by the candidate and shall be accompanied by a declaration signed by him that the work has been done and the thesis composed by himself. In the case of collaboration the candidate's individual contribution must be clearly defined. The thesis, or a major part of it, shall have been published either as a book or in periodicals of recognised standing, and shall be presented in such manner as the Senate may by regulation prescribe.
- 4. The thesis shall be examined by one or more examiners appointed by the Senate from among the Professors, Readers and Lecturers in the University, and by one or more additional examiners appointed by the University Court on the recommendation of the Senate. The reports of the Examiners shall be submitted independently to the College of Science & Engineering, who shall if they think fit make a recommendation thereon to the Senate. The candidate shall be approved for the Degree only if, in the opinion of the College of Science & Engineering and of the examiners, the thesis constitutes an original and substantial contribution to engineering science.
- 5. The Senate shall have power to make such regulations governing the award of the Degree as may be approved by the University Court.
- 6. The Degree of Doctor of Science in Engineering shall not be conferred upon a person who has not satisfied the conditions hereinbefore set forth; provided always that the Senate may, at its discretion, permit a candidate to offer himself for the Degree under the regulations previously in force during a period not exceeding five years from the date on which this Ordinance shall have come into operation.

Degree of DSc(Eng) SciEng.55 (PG)

DSc(Eng) - Regulations

 Candidates who have been awarded a Certificate of Proficiency in the subjects of an Honours Group will be regarded as having 'passed the Examination in an Honours Group' for the purpose of proceeding to the Degree of DSc.

- Before acceptance of candidature for the degree, applicants must supply to the College Graduate School, two
 copies of an adequate and informative abstract of the work around 1000 words along with a list of the publications
 that will support the thesis. The College of Science & Engineering may decline to proceed to examine the
 candidate if the summary and list of supporting publications does not in its opinion, show evidence of sufficient
 originality.
- 3. Each candidate must submit two copies of his or her thesis. If approved for the degree, one hard-bound copy of the thesis and one electronic copy shall be deposited with the University Library. The electronic copy must conform to University Library specifications published at http://theses.gla.ac.uk/format.html. It is the University's normal practice to make the bound copy available for consultation in the Library, and to permit computer download of the electronic copy through its repository service, Enlighten. Such access may, however, be restricted under provisions of the Freedom of Information (Scotland) Act 2002 or the Environmental Information (Scotland) Regulations 2004.
- 4. In addition to making the declaration required under Section III of the Ordinance a candidate must, if the whole or any part of the subject-matter of the thesis submitted by him or her has been included in a thesis already approved for a degree in this or another University, make a declaration to that effect, and must lodge together with his or her thesis either a copy of such previously approved thesis or a precise statement of its scope.
- 5. Before acceptance for adjudication, a thesis, or an important part of it, shall have been published either as a book or in periodicals of recognised standing. The thesis may be presented in the form of a single memoir or writing containing a connected account of the candidate's research or work. Published papers under various headings may be submitted in lieu of a single thesis provided that they are accompanied by a statement showing the relationship between the various studies and placing the whole work critically into perspective with the general state of knowledge in the field of investigation to which the candidate's researches are related. The thesis should also be accompanied by two copies of a separate summary (500-1,000 words) which must be an adequate and informative abstract of the work, suitable for publication by the University.