

**POSTGRADUATE INSTITUTE OF SCIENCE
(PGIS)**



**University of Peradeniya
SRI LANKA**

**HANDBOOK
2019**

PGIS HANDBOOK 2019

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POSTGRADUATE INSTITUTE OF SCIENCE
University of Peradeniya, Sri Lanka



HANDBOOK 2019

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VISION

To be an internationally renowned centre of excellence in Asia
for Postgraduate Education and Research in Sciences

MISSION

To contribute to the development of a knowledge-based society
with social sensitivity, ethical rectitude and economic prosperity
through postgraduate education and research, outreach activities,
and dissemination of knowledge in sciences in an intellectually stimulating, efficiently
managed and harmonious academic environment

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1.0 INTRODUCTION

The Postgraduate Institute of Science (PGIS) is a national institute attached to the University of Peradeniya, Sri Lanka. The PGIS was established in 1996 by an ordinance gazette by the Minister of Higher Education in order to promote postgraduate education and research and development (R&D) in scientific disciplines in Sri Lanka. The principal objective of the PGIS is to promote and provide postgraduate training and research in various scientific disciplines, enhancing the academic and professional competence of its graduates.

The academic programmes of the PGIS are conducted through 11 Boards of Study, in close collaboration with the Faculty of Science, University of Peradeniya. Being situated in the premises of the University of Peradeniya, it particularly provides an ideal environment for intellectual activities, in interdisciplinary areas of science. The teaching panels of the PGIS are served by high-caliber teachers and researchers drawn from the University of Peradeniya, as well as from other universities and institutes recognized locally and internationally. The excellent research facilities available at the Faculty of Science and other faculties of the University of Peradeniya and research institutions in the country as well as within the PGIS are used to provide research training to its students.

Currently, the PGIS offers Ph.D., M.Phil., M.Sc., postgraduate diploma programmes and certificate courses. The PGIS caters to the growing demand for trained Science and Technology manpower by conducting in-service training programmes, short courses, workshops and outreach activities, and provides consultancy services to industry and public/private sector organizations. Sandwich and collaborative programmes with reputed institutions worldwide are also conducted. The quality of the postgraduate programmes has been maintained at a high standard attracting many postgraduate students locally and internationally. The PGIS has become the leading institute in Sri Lanka for postgraduate education and research in scientific disciplines. During the past decade, the student enrolment has increased by more than 10-fold. The PGIS alumni provide their expertise to the national development while being associated with both private and public sector organizations. Over 2400 PGIS graduands have received postgraduate degrees (Ph.D., M.Phil. and M.Sc.) in different disciplines of science by the University of Peradeniya until 2017 since the inception of the PGIS. There are over 215 PGIS graduands awaiting 2019 convocation. Also, 20765 persons have participated in workshops and short-term training courses/programmes conducted by the PGIS. The PGIS regularly organizes national and international conferences on issues of scientific interest, particularly of national relevance. PGIS organizes the annual Research Congress providing a platform for scientists to share their research findings.

The PGIS develops its corporate information function alongside the planning function to ensure that information provided is accurate, timely and relevant, spans all its activities and supports the strategic plan. The PGIS intends to expand its activities, while maintaining academic excellence and fulfilling the scientific manpower needs of the nation and looks forward to a productive future ahead.

2.0 OFFICERS OF THE INSTITUTE

2.1 Administration*

Director
Deputy Registrar/Senior Assistant Registrar
Assistant Registrar
Deputy Bursar

2.2 Board of Management*

Director, Postgraduate Institute of Science
Secretary, Ministry of Higher Education (or nominee)
Secretary, Ministry of Finance and Planning (or nominee)
Secretary, Ministry of Science, Technology and Research (or nominee)
Director-General, National Science Foundation (or nominee)
President, Federation of Chamber of Commerce and Industry of Sri Lanka (or nominee)
Dean, Faculty of Science, University of Peradeniya
One other Dean to represent the Faculties of Science of all Universities, nominated by the Standing Committee in Science of the UGC
Two Members appointed by the University Grants Commission
Chairpersons of the 11 Boards of Study (see Section 2.4)

2.3 Coordinating Committee*

Director
Dean, Faculty of Science of the University of Peradeniya or his nominee
Chairpersons of the Boards of Study
Secretaries of the Boards of Study
Librarian, University of Peradeniya or his/her nominee
Programme Coordinators (*by invitation*)

2.4 Boards of Study*

Board of Study in Biochemistry and Molecular Biology
Board of Study in Biomedical Sciences

- Board of Study in Chemical Sciences
- Board of Study in Earth Sciences
- Board of Study in Environmental Science
- Board of Study in Mathematics
- Board of Study in Physics
- Board of Study in Plant Sciences
- Board of Study in Science Education
- Board of Study in Statistics and Computer Science
- Board of Study in Zoological Sciences

Each Board of Study consists of nine members:

Director

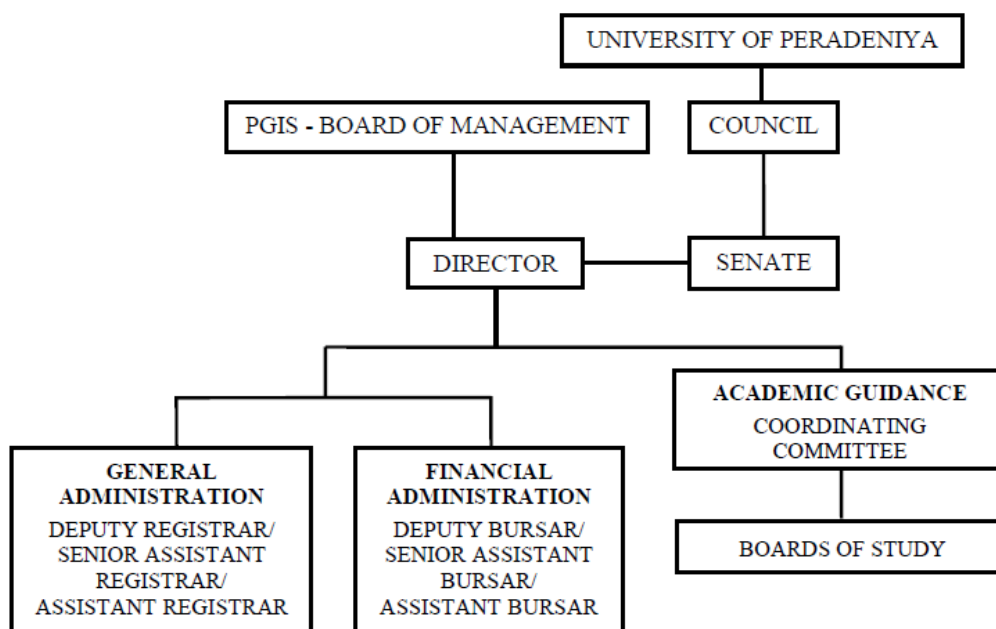
Head of the relevant Department of the Faculty of Science of the University

Four members appointed by the Board of Management from among the teachers in the University specialized in the relevant field of study, on the recommendation of the university

Three members appointed by the Board of Management from among persons of eminence in the appropriate speciality in Science

** For updated lists of officers and members of above boards and committees, please visit the PGIS website: www.pgis.pdn.ac.lk.*

2.5 Organizational/Operational Structure of the Institute



3.0 POSTGRADUATE PROGRAMMES (SLQF LEVELS 7 - 12): AN OVERVIEW

PGIS offers programmes leading to Postgraduate Certificate and Diploma, and Masters (by course work), M.Sc. (with course work and a research component), Master of Philosophy (by research) and Doctor of Philosophy (by research) Degrees in the respective discipline of science. The medium of instruction of all the programmes shall be English. Some programmes consist of only course work while other programmes have both course work and research components.

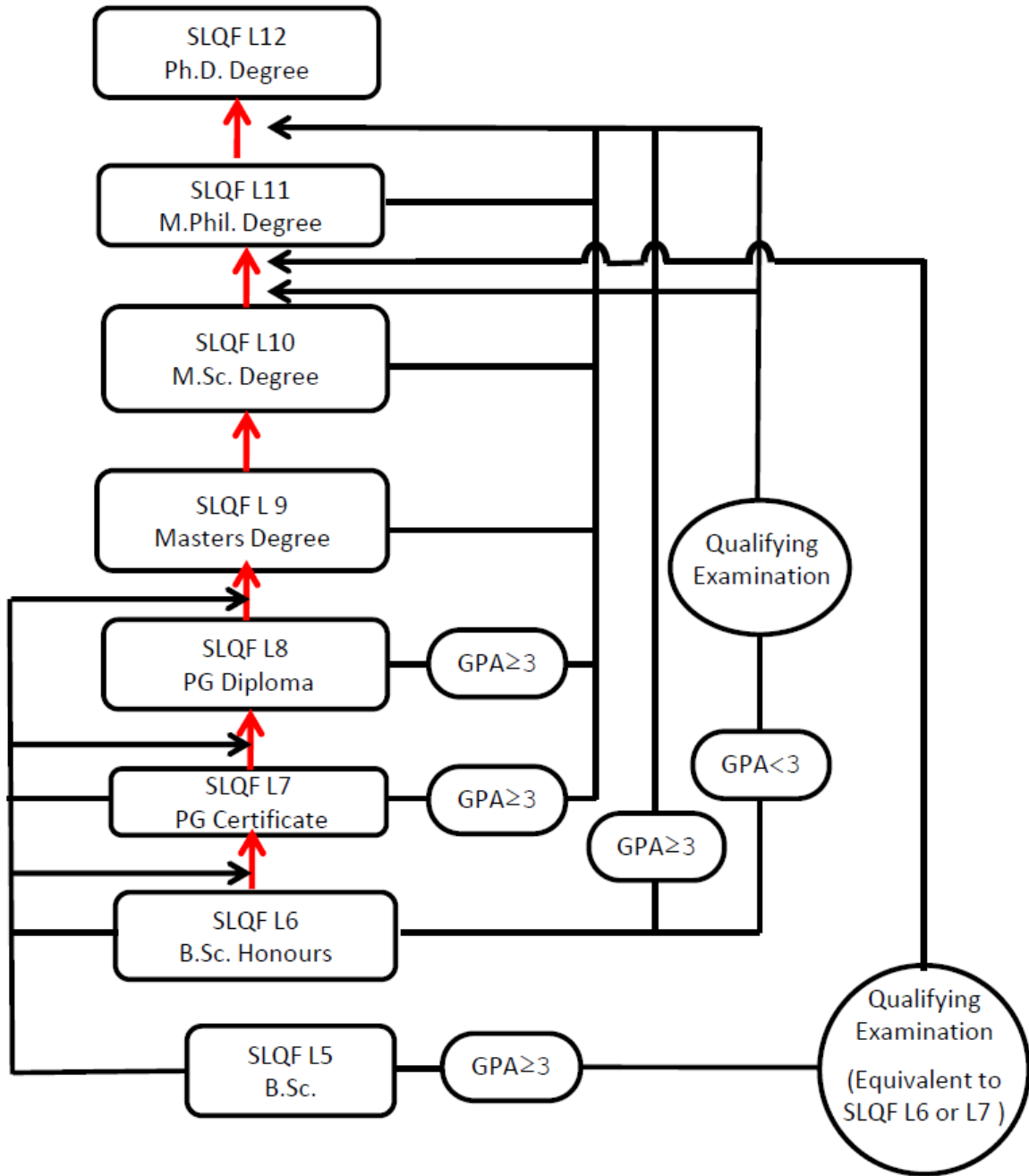
Sri Lanka Qualification Framework (SLQF) is a national framework designed for improving the quality of higher education and training through recognizing and accrediting qualifications offered by different higher educational institutions. This framework identifies different levels to which the qualifications offered by different institutions match. Therefore, the SLQF combines diverse qualifications and training provided by educational institutions in the country under one system so that the educational level of various academic programmes can easily be identified and compared.

The PGIS has adopted SLQF for all its academic programmes. According to SLQF, each programme is assigned a level for easy identification of the respective qualification. The qualification at exit (SLQF level) for each programme of study, entry requirement, credit/GPA requirements to be fulfilled to obtain the relevant postgraduate qualification, and other information are given in the table below. Progressive pathways within SLQF are illustrated in the figure given in the next page, and details are given in Chapters 4 and 5.

Programme of Study (Qualification at exit)	Entry Requirement (minimum)	Requirements to be fulfilled in the programme			Duration /Years (minimum)
		Credit Requirement		GPA Requirement (minimum)	
		Course work	Research		
Postgraduate Certificate (SLQF L7)	SLQF L5 ¹	20	--	2.75	1
Postgraduate Diploma (SLQF L8)	SLQF L5	25	--	2.75	1
Masters Degree by course work (SLQF L9)	SLQF L5	30	--	3.00	1
Master of Science (M.Sc.) Degree (SLQF L10)	SLQF L9 ²	30	30	3.00 (Course work)	2
M.Phil. Degree (Direct admission) (SLQF L11)	SLQF L6 ³ or SLQF L7	4	60	3.00 (Course work)	2
Ph.D. Degree (Direct admission) (SLQF L12)	SLQF L6 or L7	6	90	3.00 (Course work)	3
Ph.D. Degree (Upgrade) (SLQF L12)	Through SLQF L11	6	90 (total)	3.00 (Course work)	3 (total)

¹ SLQF L5 - B.Sc. degree, ² The credits obtained by fulfilling the requirements of the SLQF L9 qualification will be transferred to SLQF L10 provided that the degree relevant to the SLQF L9 is not awarded, ³ SLQF L6 - B.Sc. Honors degree

Note: Credits considered for one qualification/degree shall not be valid for another qualification/degree at the PGIS.



POSSIBLE PROGRESSION PATHWAYS WITHIN SRI LANKA QUALIFICATION FRAMEWORK (SLQF)

4.0 POSTGRADUATE CERTIFICATE AND DIPLOMA, MASTERS DEGREE BY COURSE WORK AND MASTER OF SCIENCE (M.Sc.) DEGREE [SLQF Levels 7, 8, 9 and 10]

4.1 Introduction

PGIS offers programmes leading to Postgraduate Certificate, Postgraduate Diploma, Masters Degree by course work and Master of Science (M.Sc.) Degree in the respective discipline of science. A candidate may register for a Postgraduate Certificate or Diploma or Masters degree by course work programme in a chosen field of study with the approval of the relevant Board of Study.

4.1.1 Postgraduate Certificate (SLQF Level 7)

Postgraduate Certificate shall be awarded upon successful completion of at least 20 credits of required course work with at least a C grade for each course and a minimum cumulative GPA of 2.75 for all courses taken for credit. The minimum duration of the postgraduate certificate programme is 12 months.

4.1.2 Postgraduate Diploma (SLQF Level 8)

Postgraduate Diploma shall be awarded upon successful completion of at least 25 credits of required course work with at least a C grade for each course and a minimum cumulative GPA of 2.75 for all courses taken for credit. The minimum duration of the postgraduate diploma programme is 12 months.

4.1.3 Masters Degree (SLQF Level 9)

The Masters degree is awarded upon successful completion of at least 30 credits of required course work with at least a C grade for each course and a minimum cumulative GPA of 3.00 for all courses taken for credit. The minimum duration of the Masters degree programme is 12 months. Course work component of each Masters degree programme consists of compulsory course units including a five-credit independent study guided by a supervisor, and optional course units.

4.1.4 Master of Science (M.Sc.) Degree (SLQF Level 10)

In addition to the successful completion of the course work requirement for the Masters Degree (SLQF Level 9), the Master of Science Degree (SLQF Level 10) requires successful completion of a research project of minimum 12-month duration worth of 30 credits (3000 notional hours). The minimum duration of the programme is two years.

Note: A postgraduate candidate who wishes to exit the programme with a lower qualification/SLQF Level may apply for that qualification after successful completion of the relevant criteria for the lesser qualification. The same coursework/research shall not be considered for more than one qualification.

PGIS offers the following programmes leading to the Masters Degree and M.Sc. Degree.

Masters/M.Sc. Degree Programme	Board of Study
Clinical Biochemistry	Biochemistry and Molecular Biology
Experimental Biotechnology	
Analytical Chemistry	Chemical Sciences
Industrial Chemistry	
Nanoscience and Nanotechnology	
Disaster Management	Earth Sciences
Engineering Geology and Hydrogeology	
Gemmology and Industrial Minerals	
GIS and Remote Sensing	
Oceanography	
Water Resources Management	
Biodiversity, Ecotourism and Environment Management	Environmental Science
Environmental Science	
Industrial Mathematics	Mathematics
Medical Physics	Physics
Physics of Materials	
Biodiversity Conservation Management	Plant Sciences
Medical Microbiology	
Pharmaceutical Botany	
Plant Sciences	
Postharvest Technology of Fruits and Vegetables	
Science Education	Science Education
Applied Statistics	Statistics & Computer Science
Computer Science	
Data Science	
Information Technology	
Applied Epidemiology	Zoological Sciences

4.2 Admission Requirements

A. The applicant should possess at least one of the following qualifications in the relevant subject area:

- i. a B.Sc. Honours Degree (SLQF Level 6) from a university/institution recognised by the UGC
or
- ii. a B.Sc. General Degree (SLQF Level 5) from a university/institution recognised by the UGC
or
- iii. any other equivalent qualifications acceptable to the PGIS

with minimum of 30 credits in the relevant subject area acceptable to the Board of Study.

and

B. Any other requirement/s as stipulated in the relevant M.Sc. degree, Masters degree, Postgraduate Diploma or Postgraduate Certificate programme

4.3 Application Procedure

An applicant is expected to refer to advertisements in printed/electronic media or PGIS website (<http://www.pgis.pdn.ac.lk>) for details regarding the commencement of M.Sc. degree, Masters degree or Postgraduate Diploma Programmes. Every application for enrolment must be made in duplicate on the prescribed forms downloaded from the website. The completed application form should accompany the prescribed processing fee. The relevant academic/professional qualifications possessed by the candidate should be supported by academic transcripts and authenticated copies of degree/diploma certificates. Applicants are advised to submit certified photocopies of original certificates along with the completed application. Applicants should arrange to have official copy/copies of transcript(s) sent directly to the Assistant Registrar of the PGIS. It is the responsibility of the applicant to ensure that two letters of recommendation, at least one of which should be from an academic referee, are sent by the referees under confidential cover to the PGIS.

Duly completed application should be forwarded to the Assistant Registrar of the PGIS.

4.4 Processing of Applications

Applications are initially screened by the relevant Board of Study. Applications which are incomplete or carrying false information shall be rejected. Those who are eligible will be called for an Aptitude Test, and an additional subject-based test depending on the programme. The selection shall be based on academic merit and the performance at the test(s) and an interview conducted by the PGIS. The decision of the PGIS shall be final with regard to admission to any postgraduate programme.

4.5 Fees

The fees are revised from time to time by the Board of Management of the PGIS. Please see the PGIS website: www.pgis.pdn.ac.lk for updated fees of relevant Postgraduate Certificate/Diploma and Masters/M.Sc. Degree programme.

4.6 Registration and Related Matters

4.6.1 Registration

An applicant who has been selected as a postgraduate student shall be required to register at the PGIS to follow the postgraduate programme. Originals of all certificates and a certified copy of English translation of the birth certificate should be produced before admission. The date of registration shall be specified by the PGIS. Registration is valid only for one year. At registration, students are required to make the relevant payments (Section 4.5).

4.6.2 Continuation of Registration

A student should maintain the registration continuously throughout the Degree/Diploma programme by paying the appropriate fees (Section 4.5) on time as stipulated by the PGIS.

4.6.3 Concurrent Registration

A student who is registered for a postgraduate programme in the PGIS is not permitted to register concurrently for another postgraduate programme in the PGIS.

4.6.4 Withdrawal from a Programme

A postgraduate student wishing to withdraw from the programme for which he/she is registered should do so in writing to the Director, PGIS, through the Programme Coordinator and the Chairperson of the relevant Board of Study. The PGIS will retain 10% of the programme fee if the request for withdrawal is submitted **within three weeks** of the commencement of the programme. **No refund will be made after three weeks** from the commencement of the programme.

4.6.5 Change of the Programme Registration

Students may request to change the registration from one programme to another programme with the approval of the relevant Boards of Study within **two weeks** of the commencement of the programme. The student must meet the fee requirement of the new programme.

4.6.6 Amendments to Registration

A student who wishes to make amendments to his/her registration with regard to personal information, project topic/title, etc. should do so in writing to the Director, PGIS, through the Programme Coordinator and the Chairperson of the relevant Board of Study.

4.6.7 Postponement of Registration

A student who desires to postpone his/her registration for a programme should do so in writing to the Director, PGIS, through the Programme Coordinator and the Chairperson of the relevant Board of Study giving reasons and indicating the duration of postponement. If a student postpones his/her registration for a year or more, the new programme fee shall be charged.

4.6.8 *Cancellation of Registration*

Registration of a student may be cancelled by the PGIS on the recommendation of the relevant Board of Study for poor academic progress, violation of rules and regulations of the PGIS, plagiarism, failure to pay prescribed fees on schedule, or any other reasons as decided by the PGIS.

4.6.9 *Leave of Absence*

Leave of absence from a programme may be granted to a student only on medical grounds or any other valid reasons acceptable to the PGIS. Request for such leave should be made in writing to the Director, PGIS, through the Programme Coordinator and the Chairperson of the relevant Board of Study.

4.7 ***Course Work and M.Sc. Research Component***

4.7.1 *Course Work*

The course work includes compulsory and optional courses, and consists of theory courses, and laboratory and/or field work and/or clinical work. For a theory course, one credit is equivalent to 15 hours of instruction. For laboratory work, field work and clinical work, where applicable, 30 - 45 hours of instruction is considered as one credit. One credit of independent study requires 100 notional hours while one credit of course work requires 50 notional hours.

Some programmes require completion of preliminary courses, which are not considered for credit requirement of the programme and computation of GPA. Students may also take extra courses to advance their knowledge with the consent of the relevant Board of Study.

Students should attend Scientific Writing Workshop conducted by the PGIS.

4.7.1.1 *Independent Study*

Masters Degrees offered by the PGIS include a compulsory Independent Study worth of 5 credits. The Independent Study should be carried out in consultation with a supervisor appointed by the relevant Board of Study on the recommendation of the Programme Coordinator.

The Independent Study consists of 3 major components:

1. A project proposal, which includes an extensive literature review
2. Completion of a mini research project, which may include an experimental component
3. A project report and an oral presentation on the mini research project

4.7.2 *Research Component of M.Sc. Degree*

Masters degree candidates (SLQF Level 9) who obtain a minimum GPA of 3.00 for 30 credits of required course work are eligible to upgrade the registration to M.Sc. Degree (SLQF Level 10).

Candidates are required to carry out a research project at an academic/research/industrial institution where suitable facilities are available. The research component shall be equivalent to 30 credits; one

credit of research is equivalent to 100 notional hours. The title of the research project, place of work, and the supervisor(s) shall be approved by the PGIS prior to the commencement of the project. At least one of the supervisors shall be a member of the institution where major part of the research is carried out, and at least one of the supervisors shall be affiliated to the PGIS. Candidates should obtain approval to carry out the research project by submitting the duly filled ‘M.Sc. Research Proposal Submission Form’ (Form 4.7.2A), downloadable from the PGIS website, within two months from the date of release of GPA.

4.7.2.1 Mid-term Progress Review of Research Work

After six months, the candidate shall present the progress of the research, which shall be reviewed by a panel appointed by the relevant Board of Study.

Composition of Progress Review Panel:

1. Chairperson of the relevant Board of Study or his/her nominee (Chairperson of the panel)
(In the event that the Chairperson of the Board of Study is a supervisor or is not available, the Director or his nominee shall serve as the Chairperson of the panel)
2. Coordinator of the relevant M.Sc. programme
3. Two reviewers nominated by the *relevant Board of Study*
4. Supervisor(s) [as observer(s)]

Recommendation given at the mid-term progress review should be favourable for continuation of research. The Panel may recommend, based on the progress of research, to upgrade the registration to M.Phil. degree. If the candidate and the supervisor(s) wish to proceed with the upgrade (see section 4.14), the completed application for upgrade (Form 4.7.2.1A) should be submitted within one month from the date of the Mid-Term Progress Review.

4.8 Examinations and Evaluation Procedures

4.8.1 Evaluation of Course Work

Each course taken by the student will be evaluated through the scheme given in Section 4.8.1.1.

4.8.1.1 Evaluation Scheme

The evaluation of each course shall be based on in-course assessments and end-semester examinations. The weightage of marks given below can generally be used as a guideline in the computation of the final grade.

End of course examination	60-80%
Continuous assessments (mid-semester examination, assignments, etc.)	20-40%

Courses with laboratory and/or fieldwork may be evaluated only by continuous assessments.

Based on the scheme given above, the overall performance of a student in a given course unit shall be evaluated by the respective instructor(s) and a grade will be assigned. The minimum grade a student should earn to pass a course is C.

4.8.1.2 Grade Point Average (GPA)

On completion of the end of course examinations, the instructors are required to hand over the grades of course units to the Programme Coordinator who assigns the Grade Points according to the following table:

Grade	Grade Point
A ⁺	4.0
A	4.0
A ⁻	3.7
B ⁺	3.3
B	3.0
B ⁻	2.7
C ⁺	2.3
C	2.0
F	0.0

The GPA will be computed using the grade points earned for compulsory and optional course units, taken for credit, including the independent study, where applicable. Preliminary courses will be evaluated on pass/fail basis.

The Grade Point Average (GPA) will be computed using the formula:

$$\text{GPA} = \frac{\sum c_i g_i}{\sum c_i}, \quad \text{where } c_i = \text{number of credit units for the } i^{\text{th}} \text{ course, and } g_i = \text{grade point for the } i^{\text{th}} \text{ course}$$

A grade 'I' (incomplete) may be given, if a student is unable to complete all assignments/examinations in the course unit due to valid reasons. A student may complete the course for which an 'I' grade is assigned, as a proper candidate, at the next available attempt.

4.8.1.3 Make-up Examinations

'Make-up' examinations may be given only to students who fail to sit a particular examination due to medical or other valid reasons acceptable to the PGIS.

4.8.1.4 Repeat Courses

If a student fails a course unit or wishes to improve his/her previous grade in a course, he/she shall repeat the course and course examinations at the next available opportunity. However, he/she may be exempted from following the course and repeat only the course examinations if recommended by both the instructor and the Programme Coordinator. In the case of an optional course, the student may repeat the same course or a substituted (new) course in place of the original one with the approval of the Board of Study. A student can repeat five credits of coursework free-of-charge at the first repeat attempt. The maximum number of credits a candidate can repeat is twelve, and a fee will be charged on extra credits (Section 4.5). The maximum grade, a candidate could obtain at a repeat attempt is a B. The candidate is expected to handover the duly completed and signed 'Registration Form for Repeat Courses/Examinations' (Form 4.8.1.4A) together with the receipt of payment of the repeat course/examination fee to the Senior Assistant Registrar of the PGIS. The Form 4.8.1.4A may be

downloaded from the PGIS website: www.pgis.pdn.ac.lk. A photocopy of the approved Form 4.8.1.4A will be issued to the student to produce at the class/examination as an admission document. Maximum of two repeat attempts shall be allowed for a course.

4.8.1.5 *Independent Study*

Independent study of the Masters Degree shall be evaluated based on the following:

- Evaluation of the project proposal
- Evaluation of the mini project
 - continuous assessment
 - project report
 - oral presentation

The oral presentation shall be evaluated by a panel of examiners appointed by the relevant Board of Study, based on the criteria stipulated by the PGIS.

4.8.2 *Evaluation of M.Sc. Research Project*

4.8.2.1 *Initial Submission of Thesis*

After completing the research project, three copies of the thesis (in soft-bound form) should be submitted, in the first instance, through the supervisor/s, the Programme Coordinator and the Chairman of the relevant Board of Study to the Director, PGIS. The supervisor/s is/are expected to certify that it is of acceptable standard as required by the PGIS by signing and forwarding the 'Initial Submission Form' (Form 4.8.2.1A) available at the PGIS office or downloadable from the PGIS website: www.pgis.pdn.ac.lk.

Research project of the M.Sc. Degree (SLQF Level 10) shall be evaluated based on the following:

- Evaluation by the Thesis examiners
- Performance at the oral examination

4.8.2.2 *Evaluation of M.Sc. Thesis*

The Director shall send copies of the thesis to the two examiners recommended by the relevant Board of Study for evaluation. The examiners will send the evaluation reports to the PGIS.

If the scientific content of the thesis is up to the standard of the respective degree and requires no revision, the thesis may be considered as 'acceptable'. If there are language/formatting errors and/or minor problems, the thesis may be considered as 'acceptable with minor revision'. However, if the thesis is so poorly written that evaluation cannot be done properly, it may be returned to the PGIS without valuation. If the scientific content of the thesis is not up to the standard of the respective degree but can be brought to the expected standards by either repeating some experiments and/or revising the thesis, the thesis may be considered as 'acceptable with major revisions'. Otherwise, the thesis may be considered as 'not acceptable'.

If the examiners suggest major revision/rejection of the thesis, the Director shall send the examiner's report to the relevant Board of Study to take appropriate action. If major revisions of the thesis are recommended, two copies of the **revised thesis** should be submitted as indicated in 4.8.2.1 using 'Resubmission Form' (Form 4.8.2.1B) downloadable from the PGIS website: www.pgis.pdn.ac.lk. The supervisor/s is/are expected to certify that all the corrections/revisions have been made to the revised thesis as required by the examiners.

4.8.2.3 Seminar and Oral Examination (Thesis Defense)

After evaluation of the thesis by the examiners, the Board of Study and the Programme Coordinator will decide to hold an oral examination. In cases where major revisions are recommended, oral examination will be held after the revised thesis is recommended by the examiners.

Composition of Panel of Examiners:

1. Chairman of the relevant Board of Study (Chairman of the Panel)
(Where the Chairman of the Board of Study is a supervisor or if he is not available, the Director or his nominee shall be the Chairman of the Panel)
2. Coordinator(s) of the M.Sc. programme
3. Three examiners (including the two thesis examiners and oral examiner) per candidate appointed by the relevant Board of Study
4. The Supervisor(s) shall be present as observer(s)

The panel of examiners will submit a report on the suitability of the candidate for the award of the degree. The supervisor, with necessary instructions and a copy of the examiners' report will hand over the thesis back to the candidate for suggested revisions, if any. If the oral examination is not defended satisfactorily, the candidate is allowed **only one more attempt** to repeat the oral examination (see Section 4.10.3).

4.8.2.4 Final Submission of Hard-Bound Thesis

Three or more copies (*depending on the number of supervisors*) of the thesis in the hard-bound form, with revisions, if any, prepared according to the guidelines given in 'Format of the M.Sc./M.Phil./Ph.D. Thesis' should be submitted through the Supervisor/s, the Coordinator of the M.Sc. programme and the Chairman of the relevant Board of Study to the Director, PGIS within the specified period of time recommended by the panel of examiners for consideration by the Results Board. When the candidate submits the thesis, the supervisor/s is/are expected to certify that corrections, revisions etc., if any, have been properly effected by the candidate by duly signing the 'Final Submission Form' (Form 4.8.2.4A) available at the PGIS office or downloadable from the PGIS website: www.pgis.pdn.ac.lk.

4.9 Requirements for the Award of the Postgraduate Certificate/Diploma/Masters Degree/M.Sc. Degree

The Postgraduate Certificate may be awarded to a candidate who has satisfied the following requirements:

- (i) admission requirements as set out in Section 4.2,
- (ii) accepted by the PGIS as a candidate for the relevant programme,
- (iii) duly registered and paid fees for the prescribed duration of the programme,
- (iv) obtained at least a C in each course taken for credit and attained a cumulative GPA of 2.75 or above for 20 credits of required course work and
- (v) attended Scientific Writing Workshop conducted by the PGIS.

The Postgraduate Diploma may be awarded to a candidate who has satisfied the following requirements:

- (i) admission requirements as set out in Section 4.2,
- (ii) accepted by the PGIS as a candidate for the relevant programme,
- (iii) duly registered and paid fees for the prescribed duration of the programme,

- (iv) obtained at least a C in each course taken for credit and attained a cumulative GPA of 2.75 or above for 25 credits of required course work and
- (v) attended Scientific Writing Workshop conducted by the PGIS.

However, a candidate who has satisfied the requirements (i) to (iii) above and obtained a cumulative GPA in the range of 2.75 - 2.99 for 20 credits including all the compulsory course work is deemed to have completed the Postgraduate Certificate, which will be awarded accordingly. The students should refer to the details of Masters programme regarding the compulsory course work requirement at this exit point.

The Masters Degree may be awarded to a candidate who has satisfied the following requirements:

- (i) admission requirements as set out in Section 4.2,
- (ii) accepted by the PGIS as a candidate for the relevant programme,
- (iii) duly registered and paid fees for the prescribed duration of the programme,
- (iv) obtained at least a C in each course taken for credit and attained a cumulative GPA of 3.00 or above for 30 credits of required course work and
- (v) attended Scientific Writing Workshop conducted by the PGIS.

However, a candidate who has satisfied the requirements (i) to (iii) above and obtained a cumulative GPA in the range of 2.75 - 2.99 for 25 credits of including all the compulsory course work is deemed to have completed the Postgraduate Diploma which will be awarded accordingly. The students should refer to the details of M.Sc. programme regarding the compulsory course work requirement at this exit point.

The Master of Science Degree may be awarded to a candidate who has satisfied the following requirements:

- (i) admission requirements as set out in Section 4.2,
- (ii) accepted by the PGIS as a candidate for the relevant programme,
- (iii) duly registered and paid fees for the prescribed duration of the programme,
- (iv) obtained at least a C in each course taken for credit and attained a cumulative GPA of 3.00 or above for 30 credits of required course work,
- (v) attended Scientific Writing Workshop conducted by the PGIS and
- (vi) satisfactorily completed the research component and any other requirements, as specified.

However, students who reach a cumulative GPA of 3.00 or above for 30 credits of required course work but fail the research project are deemed to be eligible for the award of the Masters Degree and will be awarded accordingly.

4.10 Criteria for the Effective Date of the Postgraduate Certificate/Diploma/Masters Degree/M.Sc. Degree

The effective date of the certificate should be a date after the expiry of the minimum duration of a given programme. The effective date of the Postgraduate Certificate, Diploma and Masters Degree shall be the date on which the last examination of the programme is held. The effective date of the M.Sc. Degree shall be determined as shown below.

4.10.1 If the Panel of Examiners determines that both the thesis submitted, and the oral examination are of acceptable standards, the effective date shall be determined as follows:

- (a) The oral examination held within three months from the date of initial submission of the thesis**

- i. *If the thesis is accepted without corrections* and handed over in hard-bound form to the PGIS office **within one month after the oral examination**, the effective date shall be the date of the oral examination.
- ii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **within one month of the oral examination** with all the corrections made by the candidate as required by the Panel of Examiners and certified by the supervisor(s), the effective date shall be the date of the oral examination.
- iii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **after one month of the oral examination** with all the corrections made by the candidate as required by the Panel of Examiners and certified by the supervisor(s), the effective date shall be the date of the final submission of the hard-bound thesis.

(b) The oral examination held after three months from the date of initial submission of the thesis due to no fault of the candidate

- i. *If the thesis is accepted without corrections* and handed over in hard-bound form to the PGIS office **within one month after the oral examination**, the effective date shall be the date on which THREE months have elapsed since the initial submission of the thesis.
- ii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **within one month of the oral examination** with all the corrections made by the candidate as required by the Panel of Examiners and certified by the supervisor(s), the effective date shall be the date on which THREE months have elapsed since the initial submission of the thesis.
- iii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **after one month of the oral examination** with all the corrections made by the candidate as required by the Panel of Examiners and certified by the supervisor(s), the effective date shall be the date of the final submission of the hard-bound thesis.

4.10.2 If the Panel of Examiners determines that the thesis submitted is acceptable with major corrections, then the candidate is required to resubmit the thesis to the PGIS office with all the required corrections made. The effective date shall be determined, after the evaluation of the resubmitted thesis, according to 4.10.1 (a) or 4.10.1 (b).

4.10.3 If the Panel of Examiners determines that the **thesis submitted is of acceptable standards, but the oral examination must be repeated** due to unsatisfactory defence, then the effective date will be determined by 4.10.1 (a) or 4.10.1 (b), based on the repeat oral examination. However, a candidate is allowed only one such attempt to repeat the oral examination for the same qualification (M.Sc. degree).

4.11 Release of Final Results

The PGIS will call a meeting of the Results Board to consider the award of the Postgraduate Diploma, Masters Degree or M.Sc. Degree to the candidate. The Results Board will release the final results subject to confirmation by the Board of Management of the PGIS and the Senate of the University of Peradeniya.

Composition of the Results Board:

1. Director/PGIS or his/her nominee (Chairman)
2. Chairman of the relevant Board of Study or his/her nominee
3. Secretary of the relevant Board of Study
4. Co-ordinator(s) of the Postgraduate Certificate/Diploma/Masters/M.Sc. programme

4.12 Transcript

A duly certified transcript of a candidate's academic record will be issued on receipt of an application with the prescribed fee (see Section 4.14).

4.13 Academic Dress

The academic dress for the Masters Degree shall consist of a gown of University pattern made of black cloth and a garland woven with white and gold coloured cords terminating with the crest of University of Peradeniya.

4.14 Transfer from M.Sc. to M.Phil. Degree (SLQF Level 11) Programme

After conducting research in the M.Sc. degree programme (SLQF Level 10) for a period of **six months**, students who have demonstrated excellent progress in research may apply through the supervisor for upgrading the registration to M.Phil. (SLQF Level 11). The completed application for upgrade (Form 4.7.2.1A) need to be submitted after the Mid-Term Progress Review (see section 4.7.2.1). The M.Phil. qualification requires a total of 2 years of research component worth of 60 credits (6000 notional hours).

4.15 Details of Postgraduate Certificate/Diploma/Masters Degree/M.Sc. Degree Programmes

Programme details of a given Postgraduate Certificate/Diploma/Masters/M.Sc. programme may be revised/changed from time to time by the relevant Board of Study. Please see the PGIS website: www.pgis.pdn.ac.lk for updated course contents, list of resource persons and contact details of coordinator(s) of any Postgraduate Diploma/Masters programme.

5.0 MASTER OF PHILOSOPHY (M.Phil.) AND DOCTOR OF PHILOSOPHY (Ph.D.) DEGREES [SLQF Levels 11 & 12]

The PGIS offers postgraduate research programmes leading to the Degrees of Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph.D.), which involve research in selected areas of study. A candidate may register for an M.Phil./Ph.D. Degree programme in a chosen field of study with the approval of the relevant Board of Study.

5.1 *Classification of M.Phil. and Ph.D. Students*

A student registering for a degree of Master of Philosophy or Doctor of Philosophy in the PGIS shall be required to pursue his/her studies at a university, research institute or any other recognized institution under the guidance of a supervisor/s appointed by the PGIS (see Section 5.8).

Full-time and part-time students

A **full-time** student shall be a person duly registered for an M.Phil./Ph.D. degree programme and engaged in research and related activities at least during the normal working hours of the week. According to SLQF guidelines, a full-time research student should spend 3000 notional hours per year for research and related activities. Therefore, those who are employed are required to obtain leave of absence from their work places in order to be eligible for registration under this category. Those who are unable to fulfil the above requirement are advised to register as a part-time student.

A **part-time** student shall be a person duly registered for an M.Phil./Ph.D. degree programme who should spend at least 1500 notional hours per year for research and related activities.

5.2 *Admission Requirements*

5.2.1 *Admission Requirements for M.Phil. Degree Programme*

A. The applicant should possess at least one of the following qualifications in the relevant subject area:

(i) PG certificate (SLQF L7), diploma (SLQF L8), Masters Degree (SLQF L9), or M.Sc. degree (SLQF L10) from a university/institution recognised by the UGC

or

(ii) a transfer from a M.Sc. Degree (SLQF L10) programme conducted by the PGIS as stated under Section 4.14

or

(iii) a B.Sc. Special Degree (SLQF L6) from a university/institution recognised by the UGC with a GPA ≥ 3.0 ; if GPA < 3.0 , the candidate is required to pass a qualifying examination

or

(iv) a B.Sc. General Degree (SLQF L5) from a university/institution recognised by the UGC, subject to the following additional conditions:

- If GPA ≥ 3.0 , passing a qualifying examination equivalent to SLQF L6 or L7
- If GPA < 3.0 , completion of 20 credits of postgraduate course work with a GPA ≥ 3.0

or

- (v) any other equivalent qualification acceptable to the PGIS

and

- B.** any other requirement/s as stipulated by the relevant Board of Study

5.2.2 Admission Requirements for Ph.D. Degree Programme

- A.** The applicant should possess at least one of the following qualifications in the relevant subject area:

- (i) a B.Sc. Special Degree (SLQF L6), PG Certificate (SLQF L7), Diploma (SLQF L8) or Masters Degree (SLQF L9) with a GPA \geq 3.0 from a university/institution recognised by the UGC, provided that an independent study with a research component has been completed satisfactorily

or

- (ii) an M.Sc. Degree (SLQF L10) or an M.Phil. Degree (SLQF L11) from a university/institution recognised by the UGC

or

- (iii) a transfer from an M.Phil. Degree (SLQF L11) Programme conducted by the PGIS as stated under Section 5.11

or

- (iv) any other equivalent qualification acceptable to the PGIS

and

- B.** any other requirement/s as stipulated by the relevant Board of Study

5.3 Application Procedure

Applications are entertained from prospective students by the PGIS throughout the year. Every application for enrolment must be made in duplicate on the prescribed forms which can be downloaded from the PGIS website (<http://www.pgis.pdn.ac.lk>). Duly completed application should be forwarded to the Assistant Registrar of the PGIS. The application processing fee should be paid at the time of submission of the application.

5.4 Processing of Applications

Only applications complete with relevant documents (See guidelines given in the application) will be processed. The applications will be evaluated by the relevant Board of Study. Those which are incomplete or carrying false information shall be rejected. The applicants shall be informed of their acceptance/non-acceptance to the postgraduate programme for which admission was sought. The decision of the PGIS shall be final in the admission to any programme.

5.5 Fees

The fees are revised from time to time by the Board of Management of the PGIS. Please see the PGIS website: www.pgis.pdn.ac.lk for updated fees of relevant M.Phil./Ph.D. programmes.

5.6 Registration and Related Matters

5.6.1 Date of Registration

A person who has been accepted by the PGIS as a postgraduate student shall be required to register within a month to follow the relevant postgraduate programme of study (M.Phil./Ph.D.). The effective date of registration would be the date on which the duly completed application was received at the PGIS. A person who registers for an M.Phil. degree, at the first instance, can upgrade the registration to a Ph.D. after a minimum of one-year duration, on the recommendation of the relevant Board of Study (see section 5.11).

5.6.2 Continuation of Registration

It shall be obligatory for each student to renew the registration every year until the completion of the programme of study.

5.6.3 Concurrent Registration

A student who is registered for a postgraduate degree programme in the PGIS is not permitted to register concurrently for another degree programme in the PGIS.

5.6.4 Withdrawal from a Programme

A postgraduate student wishing to withdraw from the programme for which he/she is registered should do so in writing to the Director, PGIS through the research supervisor(s) and the Chairperson of the relevant Board of Study. The PGIS will retain 10% of the programme fee if the request for withdrawal is submitted within 3 weeks from the date of payment of fees. No refund will be made after this period.

5.6.5 Readmission

An M.Phil./Ph.D. student who fails to maintain his/her registration shall be deemed to have withdrawn from the selected programme of study. If he/she wishes to re-enter the programme, he/she must apply for readmission in accordance with the regulations in force at that time. However, there is no guarantee of readmission. The procedure for readmission shall be the same as for initial registration, including the payment of all prescribed fees.

5.6.6 Amendments to Registration

Any amendments in the personal information as submitted at initial registration should be informed to the PGIS. A student who wishes to make amendments in the registration such as courses/subjects, thesis topic/title, supervisor/s and student status, should do so in writing to the Director, PGIS. All changes in registration must receive the approval of the research supervisor(s), Head of the Institution/Department/Laboratory concerned and the relevant Board of Study.

5.6.7 Postponement of Registration

A student who desires to postpone his/her registration for a programme should do so in writing to the Director, PGIS giving reasons and the duration of postponement. Each such request shall be considered on its own merit by the relevant Board of Study of the PGIS.

5.6.8 *Cancellation of Registration*

A registration may be cancelled by the PGIS on the recommendation of the relevant Board of Study for the following reasons:

- (a) non-fulfilment of the course work requirement of an M.Phil./Ph.D. degree within a maximum period of two years from the date of registration,
- (b) non-payment of prescribed fees within the first six months of each year,
- (c) failure to submit two progress reports successively, or make two half-yearly progress review presentations successively, except during the period of thesis writing,
- (d) non-adherence to rules and regulations of the PGIS
- (e) plagiarism and
- (f) unsatisfactory academic progress.

5.6.9 *Leave of Absence from the Programme*

Leave of absence from the programme will not be granted under normal circumstances. However, leave may be granted under special circumstances on a written request made by the student. A student on a split or/and sandwich programme may be released for a specified period to continue the programme in an outside collaborating laboratory/institute. However, the student should maintain the continuity of registration by paying the relevant registration fees and any other fees, if any.

5.7 *Requirements for Completion of the Degree*

5.7.1 *Course Work Requirements*

All M.Phil./Ph.D. candidates should meet the following requirements:

- I He/She should successfully earn a minimum of 3.0 GPA for **four credits of course work at postgraduate level for M.Phil. degree and six credits of course work at postgraduate level for Ph.D. degree**, as recommended and arranged by the respective Board of Study. In addition, Boards of Study may recommend successful completion of selected courses of B.Sc. special degree to fulfil deficiencies in the relevant research area.
- II He/She should attain a minimum standard in scientific writing acceptable to the PGIS. The relevant courses will be conducted by the PGIS.

The requirements mentioned under I and II above should be completed within a **maximum period of two years** from the date of registration. Those candidates registered under 5.2.1A (i) and (ii) may be exempted from some or all the requirements mentioned under I and II above as recommended by the relevant Board of Study. To follow the above-mentioned courses, M.Phil./Ph.D. students are required to produce the duly completed 'Course Work Requirement Form' (Form 5.7.1.IA). The Form 5.7.1.IB should be completed and submitted to certify the completion of requirements mentioned under 5.7.1.I above. Both Forms 5.7.1.IA and 5.7.1.IB are downloadable from the PGIS website: www.pgis.pdn.ac.lk.

5.7.2 *Research Work Requirements*

He/She should engage in full-time research **for a minimum period of two years for M.Phil. degree and three years for Ph.D. degree**, or its equivalent on a part-time basis under the guidance of a supervisor/s as recommended by the relevant Board of Study, and submit a thesis based on the research carried out.

5.7.2.1 *Half-yearly Progress Review of Research Work*

Progress Review Presentations

The full-time students are required to present the progress and the future plan of the research work bi-annually (in June and December), and the part-time students annually. The progress presentation will be reviewed by a panel appointed by the relevant Board of Study.

Composition of Progress Review Panel:

1. Chairperson of the relevant Board of Study (Chairperson of the Panel)
(Where the Chairman of the Board of Study is a supervisor, the Director or his nominee shall deputise as Chairman)
2. Secretary of the relevant Board of Study
3. Two reviewers
(the relevant Board of Study shall nominate suitable persons)
4. The supervisor/s shall be present as observer/s

Progress Reports

Students should submit the progress reports based on the progress review presentation in the prescribed form. The reports should be submitted within two weeks from the date of progress presentation. The reports should be forwarded with the recommendation of supervisor/s to the Chairperson of the relevant Board of Study, who shall forward the same to the Director/PGIS with his/her recommendation.

If progress review presentations are not made or progress reports are not submitted in two consecutive occasions, based on the recommendation of the supervisor(s), candidate's registration for the relevant degree would be terminated.

5.8 *Place of Research Work and Supervisors*

A postgraduate student would normally be required to work in a laboratory/institution under the guidance of a supervisor/s approved by the relevant Board of Study. At least one of the supervisors should be from the institution where the major part of the research is carried out.

5.9 *Duration of M.Phil./Ph.D. Study*

5.9.1 *Duration for the M.Phil. Degree*

The minimum duration for

- (i) full-time candidates registered under 5.2.1 A (i), (iii), (iv) or (v) - two years
- (ii) full-time candidates under 5.2.1 A (ii) – three years including the time spent

for the M.Sc. programme or as specified by the PGIS.

- (iii) part-time candidates - double the period specified under (i) & (ii) above.

On a written request made by the student, he/she may be allowed to change over from being a full-time student to a part-time student and vice versa. The minimum period required for completing the remaining programme shall be decided by the PGIS.

5.9.2 Duration for the Ph.D. Degree

The minimum duration for

- (i) full-time candidates registered directly - three years
- (ii) full-time candidates transferred from an M.Phil. programme - three years from the date of registration for the M.Phil. programme
- (iii) full-time candidates transferred from an M.Sc. to M.Phil. programme and subsequently transferred to a Ph.D. programme - four years
- (iv) part-time candidates - double the period specified under (i), (ii) or (iii) above.

On a written request made by the student, he/she may be allowed to change over from being a full-time student to a part-time student and *vice versa*. The minimum period required for completing the remaining course shall be decided by the PGIS.

5.10 Transfer from M.Phil. to Ph.D. Degree Programme

A student who has been registered for an M.Phil. degree programme (SLQF Level 11) and who has made excellent progress may, at his/her request through the supervisor(s) and upon the recommendation of the relevant Board of Study, be permitted to transfer the registration to a Ph.D. degree programme (SLQF Level 12), which requires a total of 3 years of research worth of 90 credits (9000 notional hours). A student may apply for such a transfer after completion of at least one year of the M.Phil. programme, by submitting the completed application for upgrade (Form 5.10A).

5.11 Evaluation of M.Phil./Ph.D. Research Project

On successful completion of the course work requirements (see Sections 5.7.1 & 5.7.2) the performance of a M.Phil./Ph.D. student on the research project shall be assessed based on the thesis and a seminar followed by an oral examination.

5.11.1 Initial Submission and Evaluation of Thesis

Three copies of the thesis in temporary binding should be submitted initially through supervisor/s and the Chairperson of the relevant Board of Study to the Director, PGIS. The supervisor/s is/are expected to certify that the thesis is of acceptable standard as required by the PGIS by signing and forwarding the 'Initial Submission Form' (Form 5.11.1A) downloadable from the PGIS website: www.pgis.pdn.ac.lk.

The thesis shall be evaluated by two examiners at least one of whom shall be an examiner external to the place where the research work was carried out. In the case of Ph.D. theses, it is strongly recommended that at least one foreign examiner be appointed.

Each examiner will evaluate the temporarily-bound thesis, and send the evaluation report to the PGIS. The evaluation report will include the final recommendation on the thesis; (a) as acceptable without revisions, (b) acceptable with minor revisions, (c) acceptable with major revisions or (d) unacceptable.

If the scientific content of the thesis is up to the standard of the respective degree and requires no revision, the thesis may be considered as 'acceptable'. If there are language/formatting errors and/or minor problems, the thesis may be considered as 'acceptable with minor revision'. However, if the thesis is so poorly written that evaluation cannot be done properly, it may be returned to the PGIS without valuation. If the scientific content of the thesis is not up to the standard of the respective degree but can be brought to the expected standards by either repeating some experiments and/or revising the thesis, the thesis may be considered as 'acceptable with major revisions'. Otherwise, the thesis may be considered as 'not acceptable'.

If major revisions of the thesis are recommended, three copies of the **revised thesis** should be submitted as indicated in Section 5.11.1 using 'Resubmission Form' (Form 5.11.1B) downloadable from the PGIS website: www.pgis.pdn.ac.lk. The supervisor/s is/are expected to certify that all the corrections/revisions have been made to the revised thesis as required by the examiners.

5.11.2 Seminar and Oral Examination (Thesis Defense)

If the thesis is accepted without revisions or with minor revisions as in (a) or (b) above, the oral examination will be conducted by a Panel of Examiners appointed by the PGIS. If major revisions are recommended as in (c) above, the oral examination will be held after the revised thesis is evaluated and recommended by the examiners as acceptable without further revision or acceptable with minor revisions.

Composition of Panel of Examiners:

1. Chairman of the relevant Board of Study (Chairman)
(If the Chairman of the Board of Study is a supervisor, the Director or his nominee shall be the Chairman)
2. Three examiners including the two thesis examiners
(If the thesis examiner/s is/are not available, the relevant Board of Study shall nominate suitable person/s)
3. The Supervisor/s shall be present as observer/s

The panel of examiners will submit a report on the suitability of the candidate for the award of the degree. A candidate whose thesis is recommended for the award of the degree is required to make all corrections, revisions etc. as required by the Panel, if any, and resubmit the thesis to the PGIS as stipulated in Section 5.11.3. If the oral exam is not defended satisfactorily, the candidate is allowed only one more attempt to repeat the oral examination (see section 5.13.4).

5.11.3 Final Submission of Thesis

Three or more copies of the thesis (*one copy to the PGIS, one each for each supervisor and one for the student*) in the permanently bound form, prepared according to the PGIS guidelines, should be submitted through the Supervisor and the Chairman of the relevant Board of Study to the PGIS within the specified period of time as recommended by the panel of examiners for consideration by the Results Board. When the candidate submits the thesis, the supervisor/s is/are expected to certify that

corrections, revisions etc., if any, have been properly affected by the candidate by duly signing the 'Final Submission Form' (Form 5.11.3A) downloadable from the PGIS website: www.pgis.pdn.ac.lk.

5.12 Requirements for the Award of the M.Phil./Ph.D. Degree

5.12.1 Award of the M.Phil. Degree

The M.Phil. degree may be awarded to a candidate who has successfully completed the following requirements:

- (i) admission requirements as set out in Section 5.2.1,
- (ii) accepted by the PGIS as a candidate for the M.Phil. programme,
- (iii) duly registered and paid fees for the prescribed duration of the programme (see Section 5.9.1),
- (iv) attended Scientific Writing Workshop conducted by the PGIS and
- (v) satisfactorily completed course work and research work requirements (see Sections 5.7 and 5.11).

5.12.2 Award of the Ph.D. Degree

The Ph.D. degree may be awarded to a candidate who has successfully completed the following requirements:

- (i) admission requirements as set out in Section 5.2.2,
- (ii) accepted by the PGIS as a candidate for the M.Phil. programme,
- (iii) duly registered and paid fees for the prescribed duration of the programme (see Section 5.9.2),
- (iv) attended Scientific Writing Workshop conducted by the PGIS and
- (v) satisfactorily completed course work and research work requirements (see Sections 5.7 and 5.11).

5.13 Criteria for the Effective Date of the M.Phil./Ph.D. Degree

The effective date of the M.Phil./Ph.D. degree shall be determined as given below.

5.13.1 The effective date of the degree should be a date after the expiry of the minimum duration of a given programme.

5.13.2 If the Panel of Examiners determines that both the thesis initially submitted and the oral examination are of acceptable standards, the effective date shall be as follows:

(a) The oral examination held within three months from the date of initial submission of the thesis

- i. If the thesis is accepted without corrections** and handed over in hard-bound form to the PGIS office **within one month after the oral examination**, the effective date shall be the date of the oral examination.
- ii. If the thesis is accepted with minor corrections** and submitted in hard-bound form to the PGIS office **within one month after the oral examination** with all the corrections made by the candidate as required by the Panel of examiners and certified by the supervisor(s), the effective date shall be the date of the oral examination.

iii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **after one month of the oral examination** with all the corrections made by the candidate as required by the Panel of examiners and certified by the supervisor(s), the effective date shall be the date of the final submission of the thesis.

(b) The oral examination held after three months from the date of initial submission of the thesis due to no fault of the candidate

i. *If the thesis is accepted without corrections* and handed over in hard-bound form to the PGIS office **within one month after the oral examination**, the effective date shall be the date on which THREE months have elapsed since the initial submission of the thesis.

ii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **within one month of the oral examination** with all the corrections made by the candidate as required by the Panel of examiners and certified by the supervisor(s), the effective date shall be the date on which THREE months have elapsed since the initial submission of the thesis.

iii. *If the thesis is accepted with minor corrections* and submitted in hard-bound form to the PGIS office **after one month of the oral examination** with all the corrections made by the candidate as required by the Panel of examiners and certified by the supervisor(s), the effective date shall be the date of the final submission of the thesis.

5.13.3 If the Panel of Examiners determines that the thesis submitted is acceptable with major corrections, then the candidate is required to resubmit the revised thesis to the PGIS with all the corrections made. The effective date shall be determined, after the evaluation of revised thesis, according to the procedures stipulated in sections 5.13.2 (a) or 5.13.2 (b).

5.13.4 If the Panel of Examiners determines that the **thesis submitted is of acceptable standard, but the oral examination is to be repeated** due to unsatisfactory defence, then the effective date will be determined by 5.13.2 (a) or 5.13.2 (b), based on the repeat oral examination.

However, a candidate is allowed only one such attempt to repeat the oral examination for the same qualification (M.Phil./Ph.D. degree).

If the oral examination is not of acceptable standard for the Ph.D. degree even after repeat attempts, but is of acceptable standard for an M.Phil. degree, the Panel of Examiners may recommend the award of an M.Phil. degree.

5.14 Release of M.Phil./Ph.D. Results

The Results Board shall be held to consider the award of the M.Phil./Ph.D. degree to the candidate. The Results Board will release the results subject to confirmation by the Board of Management of the PGIS and the Senate of the University of Peradeniya.

Composition of Results Board:

1. Director/PGIS (Chairman)
2. Chairman of the relevant Board of Study
3. Secretary of the relevant Board of Study

5.15 *Transcript*

Certified transcript/s of a student's academic record authenticated by the signatures of the Director and the Deputy Registrar/Assistant Registrar of the PGIS may be sent under confidential cover directly to other institution/s on receipt of a request with the prescribed fee for such a transcript.

5.16 *Academic Dress*

5.16.1 Academic Dress for the M.Phil. Degree

The academic dress for the Degree of Master of Philosophy shall consist of a gown of University pattern made of black cloth and a garland woven with white and gold coloured cords and terminating with the crest of University of Peradeniya.

5.16.2 Academic Dress for the Ph.D. Degree

The academic dress for the Degree of Doctor of Philosophy shall consist of a gown of University pattern made of black cloth with a facing of scarlet and a garland woven with scarlet and gold coloured cords and terminating with the crest of University of Peradeniya.

6.0 OCCASIONAL STUDENTS

Occasional students are those who are not registered for any of the postgraduate degree programmes of the PGIS. Two categories of such students are identified. They are those who:

- (a) would follow course unit/s from a programme conducted by the PGIS and/or
- (b) are attached to the research projects administered by the PGIS or by Teaching Panel Members of the PGIS

6.1 *Qualifications*

On the recommendation of the relevant Board of Study the status of occasional student of the PGIS can be conferred on candidates with the following qualifications:

- (a) Bachelor's Degree in Science or any other equivalent or higher qualification from a university/institution recognized by the UGC
- or
- (b) Any other qualification acceptable to the PGIS

6.2 *Fees*

The fees are revised from time to time by the Board of Management of the PGIS. Please see the PGIS website: www.pgis.pdn.ac.lk for updated fees relevant to occasional students.

7.0 DOCTOR OF SCIENCE (D.Sc.) DEGREE

On the recommendation of the Board of Management of the PGIS, the Senate of the University of Peradeniya may resolve that the Degree of Doctor of Science be conferred on a graduate of the University of Peradeniya or its predecessors,

- a. who is of at least six years' standing with a degree of Doctor of Philosophy or an equivalent research degree of a recognized university, or
- b. who is of at least ten years' standing with a degree of Master of Philosophy or an equivalent research degree of a recognized university, and
- c. who has satisfied any other requirements laid down by the PGIS.

The Degree of Doctor of Science shall not be awarded except for conspicuous merit in a field of study within the purview of the PGIS. Evidence of conspicuous merit shall consist of papers published in journals, monographs, books or other research material representing a significant and substantial contribution to the relevant field of learning.

7.1 *Application Procedure*

Every application for a D.Sc. Degree must be made in duplicate on the prescribed forms obtained from the PGIS on the payment of a fee.

Every application shall be accompanied by a receipt for the prescribed fee paid to the account of the PGIS at a specified bank.

Four copies of all relevant material other than that which is specified in detail in the application should be submitted along with the application to the Director /PGIS. Two of the copies submitted will become the property of the PGIS whether or not the degree is conferred.

Every application shall be accompanied by a declaration by the applicant that the published works on which the application is based have not been submitted for a degree of this or any other university, and that the applicant received no assistance other than the assistance which is specified in detail in the application. An applicant who submits papers or books which have been produced in collaboration shall state in respect of each item the extent of the applicant's own contribution.

7.2 *Fees*

The fees are revised from time to time by the Board of Management of the PGIS. Please see the PGIS website: www.pgis.pdn.ac.lk for updated fees.

7.3 *Evaluation Procedure*

The Director/PGIS will place the application before the relevant Board of Study and the Coordinating Committee for preliminary evaluation. The Board of Study and the Coordinating Committee, when assessing the application should also take into consideration the contribution made by the applicant

towards stimulating, promoting and supporting research in the specific area in which the higher degree is sought.

If the Coordinating Committee decides to proceed with the application, its observations/recommendations will be forwarded to the Board of Management of the PGIS. The Board of Management will submit its observations/recommendations to the Senate and if the application is accepted by the Senate, the Senate will then proceed with the appointment of examiners.

The Senate shall appoint not less than two examiners who have higher doctoral degrees and with special competence in the relevant subject. Examiners shall not be from the same institution as the applicant. They shall consider the evidence submitted by the applicant and report thereon to the Senate. They should disregard any of the work which has not been made available for criticism either on account of its inaccessibility or because it has been submitted for the degree at too short an interval after its publication. In their report the examiners should state whether the evidence presented constitutes an original contribution to the advancement of knowledge of such substance and distinction as to give the applicant authoritative status in the relevant branch of learning. For the award of the D.Sc., the concurrence of all examiners is mandatory.

7.4 *Release of Results*

The recommendations of the examiners will be considered by a Results Board consisting of the Director/PGIS (Chairman), Dean, Faculty of Science, University of Peradeniya and three Chairpersons of Boards of Study nominated by the Director. The decision of the Results Board shall be submitted to the Board of Management, and the Senate for ratification. The decision of the Senate on such recommendation shall be final and conclusive.

7.5 *Effective Date*

Effective date of the degree shall be the date on which the Results Board met to recommend the award of the Degree.

7.6 *Academic Dress*

The academic dress for the Degree of Doctor of Science shall consist of a gown of University pattern made of scarlet silk or similar material with the lion design on the lapels, and a garland woven with blue, scarlet and gold coloured cords and terminating with a lotus made up of gold coloured material.

8.0 OTHER ACTIVITIES OF THE PGIS

8.1 *Short Courses/Training Programmes/Workshops*

The PGIS routinely conducts conferences, short courses, in-service training programmes, workshops, seminars, etc. of national and global importance. The PGIS advertises these programmes on the PGIS website: www.pgis.pdn.ac.lk from time to time. The Institute also conducts tailor-made training programmes depending on the demand.

8.2 *Scientific and Industrial Consultancy Services*

The PGIS also offers scientific consultancy services in various disciplines of science to the local industry and public/private sector institutions. The relevant application form can be downloaded from the PGIS website: www.pgis.pdn.ac.lk.

8.3 *Outreach Activities*

The outreach activities include public lectures, newspaper/magazine articles, TV/radio programmes and camps/visits throughout the country for the dissemination of scientific information. In addition, advice, consultation, guidance and scientific/laboratory services are provided to industry and other organizations/institutions on request.

9.0 PAYMENT OF FEES

All payments should be made as follows:

- **Online payment** (please visit the PGIS website for payment details)

or

- **Cash at the Shroff Counter of the PGIS**

or

- **Deposit (local currency) to the PGIS A/C No. 0081041788 at Bank of Ceylon, Peradeniya**, using the paying-in-voucher prepared by the Institute for this purpose. You may make the payment at any branch of the Bank of Ceylon.

(Please attach a scanned copy of the Bank Slip with the applicant's name)

or

- **Deposit (foreign currency) to the PGIS A/C No. 2233593 at Bank of Ceylon, Peradeniya, Sri Lanka**. If the deposit is made outside Sri Lanka, please use the **SWIFT CODE: BCEYLKLX**.

(Please attach a scanned copy of the Bank Slip with the applicant's name)

The payment details (applicant's full name, ID number, amount deposited, purpose of payment, date of deposit, etc.) should also be sent to the PGIS office.

Payments by other methods are acceptable only if prior arrangements have been made with the Institute. A receipt for payment of the prescribed fee should be annexed to the applications for registration, obtaining transcript, certificate, etc.

10.0 FACILITIES AVAILABLE

10.1 Lecture Rooms and Auditoriums

The PGIS buildings have lecture halls, an auditorium and a boardroom equipped with all modern audio visual facilities. More lecture rooms and another fully-equipped auditorium also will be available in its new building, once it is completed.

10.2 Laboratories and Instrumentation Facilities

At present Departments of Botany, Chemistry, Geology, Mathematics, Molecular Biology and Biotechnology, Physics, Statistics and Computer Science, and Zoology in the Faculty of Science provide laboratory facilities to the postgraduate students of the PGIS to carry out their work. In addition, for certain courses and research programmes laboratories in other Institutions are also used by prior arrangement. At present, the PGIS has a chemistry/environmental laboratory. In addition, the PGIS will be able to house teaching laboratories and research laboratories in its new building.

PGIS is in the process of developing its instrumentation laboratories by installing state-of-the-art instrumentation. At present, there are three instrumentation laboratories for teaching/research purposes, with a new X ray diffraction facility.

10.3 ICT/GIS Laboratories and Data Science Unit

The ICT/GIS laboratories at the PGIS provides services to the postgraduate students. A wide range of software is available to fulfil the requirements of all fields of study. Internet facilities are also available for both students and staff. Computer laboratories at the Department of Statistics and Computer Science of the Faculty of Science also provide services to the postgraduate students of the PGIS. PGIS is in the process of establishing a new computer laboratory for computationally intensive data processing. A Data Science unit has also been established in the PGIS.

10.4 Library

Postgraduate students are provided with library facilities in the library of the Faculty of Science. The library holds a very large number of books and journal titles. In addition, this library subscribes to a substantial amount of foreign and local journals annually. The library has a project report/thesis collection of all the M.Sc., M.Phil. and Ph.D. degrees offered by the PGIS. Audio visual facilities are also available at the library.

Further arrangements can be made to use the main library and other faculty libraries of the University of Peradeniya. The PGIS may also organize access to other libraries in Sri Lanka by prior arrangement through relevant institutions.

10.5 Recreation

A reading room and a student common room are available for student use at the PGIS. Facilities for athletics, cricket, hockey, ruggar, soccer, volleyball, tennis, swimming, etc. are available in the university premises. A well-equipped gymnasium is situated about 500 meters away from the institute where students could participate in indoor games such as badminton, basket-ball, table-tennis, weight

lifting, etc. A theatre for screening of films, documentaries, etc. and an open-air theatre for dramas are also available in the university campus.

10.6 Healthcare

The Health Center headed by the Chief Medical Officer, provides preventive and curative health care to the university community including the postgraduate students. A 24-hour medical service catering to emergencies is also provided by the Health Center. Cases which cannot be handled at the Health Center are referred to the Teaching Hospital, Peradeniya or the Teaching Hospital, Kandy.

11.0 RESEARCH PROGRAMMES/COLLABORATIVE PROJECTS OF BOARDS OF STUDY

Resources are available for postgraduate students in the following areas:

11.1 Board of Study in Biochemistry and Molecular Biology

- Molecular diagnosis and pathogenesis of diseases.
- Bioactive compounds from medicinal plants and traditional ayurvedic regimes.
- Proteomics of toxins of venom of snakes and production of antivenom.
- Total antioxidant capacity in Health and diseases in humans.
- Biochemistry and epidemiology of Goitre.
- Effect of common fruits on blood glucose homeostasis and lipid profile.
- Effect of nutrients and minerals on the immune status.
- Studies on proteases regulating ovarian reproductive cycle.
- Molecular markers of abiotic stress tolerance in rice.
- Biodegrading enzymes from microbes.

11.2 Board of Study in Biomedical Sciences

- Diagnostic clinical biochemistry
- Molecular medicine
- Parasites and zoonotic diseases
- Bioinstrumentation
- Clinical research on diabetes mellitus and lipid profile
- Bioactivity evaluation of plant secondary metabolites
- Immunological and receptor- and enzyme-based biosensors

11.3 Board of Study in Chemical Sciences

- Bioactive natural products
- Development of sensors for environmental pollutants and for medical use
- Electrochemical research: conducting polymers, liquid crystal display technology, electrocatalysis, etc.
- Nanomaterials
- Solar cells
- Surface and Solid State Chemistry
- Synthetic organic chemistry
- Treatment of industrial effluents and waste

11.4 Board of Study in Earth Sciences

- Exploration of minerals for industry.
- Water Resources Investigation / Evaluation and research on water quality.
- Disaster Management and Mitigation.
- Research on colour enhancement of gemstones.
- Use of GIS in environmental, engineering, disaster management, landuse, town and country planning etc.
- Environmental Impact Assessment Research.
- Exploration for mineral fuels.

11.5 Board of Study in Environmental Science

- Pollution studies encompassing,
 - (a) Air pollution in urban and semi-urban areas in relation to volume of vehicular traffic, and smoke stack output of industrial and power plants, and in rural areas in relation to agricultural practices, and livestock management,
 - (b) Wetland pollution due to agricultural fertilizers, industrial effluents and other anthropogenic activities, and bioremediation,
 - (c) Management of urban and semi-urban solid waste.
- Biodiversity depletion and human-wildlife conflict.
- Demographic and employment trends and resource depletion, and their social impacts.
- Tourism development and its social, cultural and environment effects.
- Natural resource depletion, sustainable development and environment management.
- Alternate energy sources and biofuels.
- Undeveloped and under-developed natural resources for human use and export.

11.6 Board of Study in Mathematics

- Operations Research
- Industrial Mathematics
- Financial Mathematics
- Discrete Mathematics
- Number Theory

11.7 Board of Study in Physics

- Study of organic/inorganic materials for solar cell applications.
- Study of local clay/ceramic materials for better quality tiles/bricks and other products.
- Ionically conducting materials for application in fuel cells and batteries.
- Study of polymers suitable for artificial muscles.
- Diagnostic Radiology
- Therapeutic Radiology
- Dosimetry

11.8 Board of Study in Plant Sciences

- Plant pathology
- Food and Nutrition
- Plant reproductive biology and plant breeding
- Ecology of wet and dry zone forest ecosystems
- Restoration ecology (restoration of degraded habitats) and Forest die-back
- Rhizobiology, Soil fertility and soil management
- Plant systematics and Phylogenetics
- Microbiology
- Biodiversity conservation and management
- Wild crop relatives and conservation of their germplasm
- Postharvest technology of fruits, vegetables, cut foliage and flowers
- Seed biology
- Invasion of alien exotic plants

11.9 Board of Study in Science Education

- Science and Mathematics education related research mainly in the four major subject areas, Chemistry, Physics, Biology and Mathematics
- New research areas: IT, Agriculture, Environmental Science, Earth Science

11.10 Board of Study in Statistics and Computer Science

Computer Science

- Artificial neural networks and fuzzy modeling
- Image processing and analysis
- Database systems
- Web technologies
- Computer networks
- Distributed systems

Applied Statistics

- Mixed regression and ridge regression estimation
- Inference on exponential family of distributions
- Categorical data analysis
- Time series analysis
- Spatial analysis
- Multivariate analysis (Manova, principal component, cluster, factor, discriminant, canonical, correlation)

11.11 Board of Study in Zoological Sciences

- Water pollution, algal toxins, use of planktons and invertebrates as indicators to detect environmental problems.
- Medical disasters, application of disaster management principles in epidemics
- Biodiversity conservation, conservation of large mammals
- Toxicology, medical entomology, insect molecular biology
- Agricultural entomology, pest management
- Parasitology
- Aquaculture and inland fisheries
- Aquatic resources, pollution and pollution management of inland water