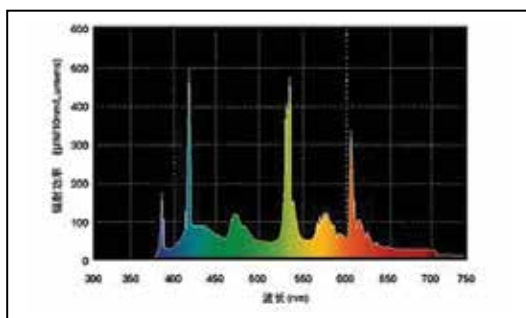


POSTGRADUATE INSTITUTE OF SCIENCE (PGIS)



University of Peradeniya SRI LANKA



**HANDBOOK
2013**

PGIS HANDBOOK 2013

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POSTGRADUATE INSTITUTE OF SCIENCE
University of Peradeniya, Sri Lanka



HANDBOOK 2013

(Effective from 1st March 2013)

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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 from the Ministry of Higher Education in order to promote science education and R&D in scientific disciplines in Sri Lanka. The principal objective of the Postgraduate Institute of Science is to promote and provide postgraduate instruction, training and research in various scientific specialties, enhancing the academic experience of the graduates.

The academic programmes of the PGIS are conducted through 10 Boards of Study and these programmes are conducted in close collaboration with the Faculty of Science, University of Peradeniya. Being situated in the premises of the University of Peradeniya, it provides an ideal environment for intellectual activities particularly in interdisciplinary areas. The PGIS has the opportunity of obtaining services from academic staff members with postgraduate qualifications from some of the best universities in the world. The members of the teaching panels are drawn from the eight faculties of the University of Peradeniya, as well as from other universities and institutes. The excellent research facilities available at the Faculty of Science and other science-based faculties of the University of Peradeniya and research institutions in the country are used to provide research training to students.

Currently, the PGIS offers M.Sc., M.Phil. and Ph.D. programmes as well as other postgraduate diploma and certificate courses. Also, the PGIS routinely conducts in-service training programmes, short courses, workshops, etc. and offers consultancy services to local industry and public/private sector organizations. Sandwich and collaborative programmes with international institutions in USA, France, Sweden, Japan, Italy, Thailand, South Korea and other countries have also been launched. The PGIS caters to the growing demand for trained Science and Technology manpower, by appropriately resourced university-wide activities and strategic collaborations with professional bodies, commercial organizations, research organizations, government bodies, other universities and public/private sector organizations in Sri Lanka. The quality of the postgraduate programmes has been maintained at a high standard in order to attract a large number of postgraduate students locally and from other countries in the region. During the past decade, the student enrolment has increased by about 10 fold. A significant number of postgraduates are providing their expertise to the national development while being associated with both private and public sector organizations. The PGIS has become the leading degree awarding institute in Sri Lanka for postgraduate research and education in scientific disciplines. During the past 14 years, the PGIS has awarded, through the University of Peradeniya, more than 1000 postgraduate degrees (Ph.D., M. Phil. and M. Sc.) in different disciplines of science. Also, more than 8000 persons have participated in workshops, conferences and short-term training courses/programmes conducted by the PGIS.

In keeping with the vision and mission of the PGIS, the corporate plan for the next 6 years has been prepared incorporating a variety of activities. We will develop our corporate information function alongside our planning function to ensure that corporate information provided is accurate, timely and relevant, spans all of our activities and supports our strategic plan. We will further demonstrate our commitment to the development of an environmentally sustainable institute. Our strengths in developing future postgraduate programmes, increasing student intake and promoting innovative research have been taken into account in preparing the corporate plan. A student database for efficient administration and for future planning was initiated recently at the PGIS. The PGIS is planning to expand its activities with the opening of the new building and looking forward to a productive future ahead.

2.0 OFFICERS OF THE INSTITUTE

2.1 Administration

Director:

Prof. B S B Karunaratne B.Sc. (Cey.), Ph.D. (Warwick)

Senior Assistant Registrar:

Mrs. W M D P Madawala Hulugalla B.A. (Hons), M.A., M.Sc. in Org. Mgt., & PGDip. in Translations Studies (Peradeniya)

Senior Assistant Bursar:

Mr. W M M S M Iddawala B.Com. (Special) (Colombo), L.I.C.A., M.A.A.T.

2.2 Board of Management

(as of 1st March 2013)

Director, Postgraduate Institute of Science: *Prof. B S B Karunaratne* (Chairman)

Secretary, Ministry of Higher Education: *Dr. S J Navaratne*

Secretary, Ministry of Finance (nominee): *Ms. P Wellappili,*

Deputy Secretary to the Treasury

Secretary, Ministry of Technology and Research (nominee): *Dr. A M Mubarak, Former*

Director, Industrial Technology Institute (ITI)

Director, National Science Foundation (NSF): *Mrs. Anusha Amarasinghe*

President, Federation of Chamber of Commerce and Industry of Sri Lanka (nominee):

Mr. M Rasiah, Director, Chamber of Commerce and Industry of the Central Province (CCICP)

Dean, Faculty of Science, University of Peradeniya: *Prof. S H P P Karunaratne*

One other Dean to represent the Faculties of Science of all Universities, nominated by the Standing Committee in Science of the UGC: *Prof. W G D Dharmaratne, Dean, Faculty of*

Science, University of Ruhuna

Members elected by the ten Boards of Study:

Prof. R Sivakanesan (Board of Study in Biochemistry and Molecular Biology)

Prof. B M R Bandara (Board of Study in Chemical Sciences)

Dr. A A J K Gunatilaka (Board of Study in Earth Sciences)

Prof. H M D N Priyantha (Board of Study in Environmental Science)

Dr. A A S Perera (Board of Study in Mathematics)

Dr. L R A K Bandara (Board of Study in Physics)

Dr. G A D Perera (Board of Study in Plant Sciences)
Prof. A D L C Perera (Board of Study in Science Education)
Prof. S R Kodituwakku (Board of Study in Statistics and Computer Science)
Dr. R S Rajakaruna (Board of Study in Zoological Sciences)

Two Members appointed by the University Grants Commission:

Prof. M A K L Dissanayake, Emeritus Professor, University of Peradeniya
Dr. D S A Wijesundara, Director-General, Department of National Botanic Gardens, Peradeniya

2.3 *Coordinating Committee*

Director (Chairman)
Dean of the Faculty of Science of the University of Peradeniya or his nominee
Chairpersons of Boards of Study
Secretaries of Boards of Study
Librarian, University of Peradeniya or his/her nominee

2.4 *Boards of Study* *(as of 1st March 2013)*

Note: Director (PGIS) is a member (ex-officio) of all the Boards of Study

2.4.1 *Board of Study in Biochemistry and Molecular Biology*

Prof. R Sivakanesan, Department of Biochemistry, University of Peradeniya (Chairman)
Dr. P Samaraweera, Department of Molecular Biology and Biotechnology, University of Peradeniya (Secretary)
Dr. R G S C Rajapakse, Head, Department of Molecular Biology and Biotechnology, University of Peradeniya
Prof. J G S Ranasinghe, Department of Biochemistry, University of Peradeniya
Dr. S D S S Sooriyapathirana, Department of Molecular Biology and Biotechnology, University of Peradeniya
Dr. S S P Silva, Veterinary Research Institute, Gannoruwa
Dr. D Magana Arachchi, Institute of Fundamental Studies, Kandy
Dr. D Silva, Genetech Research Institute, Colombo 8

2.4.2 Board of Study in Chemical Sciences

Prof. B M R Bandara, Department of Chemistry, University of Peradeniya (Chairman)
Prof. D N Karunaratne, Department of Chemistry, University of Peradeniya (Secretary)
Prof. A Wickramasinghe, Head, Department of Chemistry, University of Peradeniya
Prof. R M G Rajapakse, Department of Chemistry, University of Peradeniya
Prof. M M A N Navaratne, Department of Chemistry, University of Peradeniya
Dr. C S Kalpage, Department of Chemical Engineering, University of Peradeniya
Dr. S V R Weerasooriya, Department of Soil Science, University of Peradeniya
Dr. D B T Wijeratne, Additional Secretary, Agriculture Department, Ministry of Agriculture,
Battaramulla

2.4.3 Board of Study in Earth Sciences

Dr. A A J K Gunatilake, Department of Geology, University of Peradeniya (Chairman)
Dr. H M T G A Pitawala, Head, Department of Geology, University of Peradeniya (Secretary)
Dr. H A Dharmagunawardana, Department of Geology, University of Peradeniya
Prof. K D W Nandalal, Department of Civil Engineering, University of Peradeniya
Dr. Jayalath Edirisinghe, Department of Civil Engineering, University of Peradeniya
Prof. Kapila Dahanayake, Emeritus Professor, Department of Geology, University of Peradeniya
Dr. W K B N Prame, Deputy Director, Geological Survey and Mines Bureau, Dehiwala
Mr. S P Dampegama, Deputy Surveyor General, ISM, Survey Department, Diyatalawa

2.4.4 Board of Study in Environmental Science

Prof. H M D N Priyantha, Department of Chemistry, University of Peradeniya (Chairman)
Dr. A M T A Gunaratne, Department of Botany, University of Peradeniya (Secretary)
Dr. H M T G A Pitawala, Head, Department of Geology, University of Peradeniya
Dr. S K Yatigammana, Department of Zoology, University of Peradeniya
Mr. L R K Perera, Department of Geology, University of Peradeniya
Dr. G W A R Fernando, Department of Physics, Open University of Sri Lanka, Nugegoda
Dr. W L Sumathipala, Open University of Sri Lanka, Nugegoda
Mr. Anura Sathurusinghe, Conservator of Forests, Head, Research and Education Division,
Department of Forest and Environmental Science, Ministry of Environment and Natural
Forest Resources, Battaramulla

2.4.5 Board of Study in Mathematics

Dr. A A S Perera, Department of Mathematics, University of Peradeniya (Chairman)
Dr. D M Samarathunga, Department of Mathematics, University of Peradeniya (Secretary)
Prof. A A I Perera, Head, Department of Mathematics, University of Peradeniya
Prof. U N B Dissanayake, Department of Mathematics, University of Peradeniya
Prof. W B Daundasekera, Department of Mathematics, University of Peradeniya
Dr. K A S Susantha, Department of Engineering Mathematics, University of Peradeniya
Mr. D J C Suriyaarachchi, Department of Mathematics, University of Kelaniya
Dr. S S N Perera, Department of Mathematics, University of Colombo

2.4.6 Board of Study in Physics

Dr. L R A K Bandara, Head, Department of Physics, University of Peradeniya (Chairman)
Dr. J P Liyanage, Department of Physics, University of Peradeniya (Secretary)
Prof. K Premaratne, Department of Physics, University of Peradeniya
Dr. V A Seneviratne, Department of Physics, University of Peradeniya
Prof. J K D S Jayanetti, Department of Physics, University of Colombo
Mr. H L Anil Ranjith, Senior Deputy Director, Division of Radiation Protection and Regulations,
Atomic Energy Authority, Wellampitiya
Mr. K R Abeysinghe Bandara (Former Meteorologist), Nampamunuwa, Piliyandala

2.4.7 Board of Study in Plant Sciences

Dr. G A D Perera, Head, Department of Botany, University of Peradeniya (Chairperson)
Dr. W A M Daundasekera, Department of Botany, University of Peradeniya (Secretary)
Dr. C L Abayasekera, Department of Botany, University of Peradeniya
Dr. J W Damunupola, Department of Botany, University of Peradeniya
Dr. K M G G Jayasuriya, Department of Botany, University of Peradeniya
Prof. V Thevanesam, Department of Microbiology, University of Peradeniya
Prof. S A Kulasooriya, Visiting Scientist, Institute of Fundamental Studies, Hantana Road, Kandy
Dr. D S A Wijesundara, Director-General, Department of National Botanic Gardens, Peradeniya

2.4.8 Board of Study in Science Education

Prof. A D L C Perera, Department of Chemistry, University of Peradeniya (Chairperson)
Dr. V A Seneviratne, Department of Physics, University of Peradeniya (Secretary)
Dr. A A S Perera, Director, Science Education Unit, University of Peradeniya
Prof. S Karunaratne, Science Education Unit, University of Peradeniya

Dr. C L Abayasekera, Department of Botany, University of Peradeniya
Dr. G L S Nanayakkara, Former Additional Secretary (Ministry of Education), Boralesgamuwa
Dr. M U Sedere, Former Director General (National Institute of Education), Talawathugoda
Ms. C Atapattu, Principal, St. Joseph's Balika Maha Vidyalaya, Kegalle

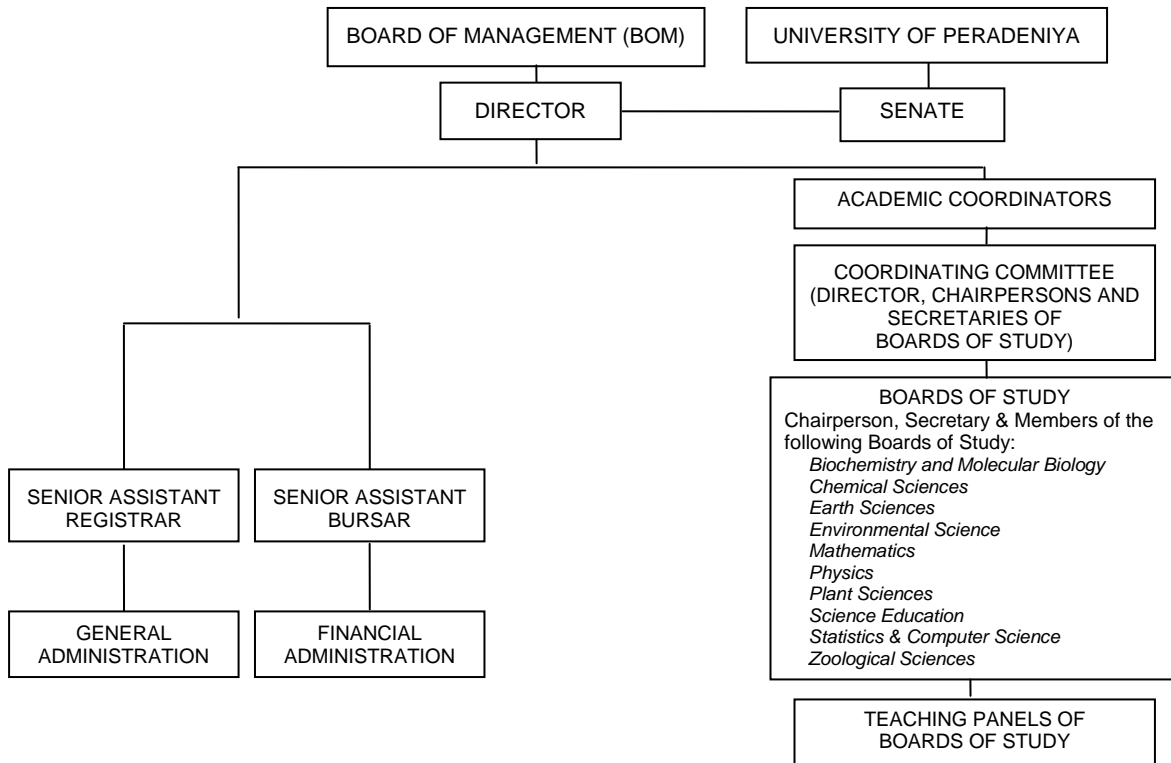
2.4.9 Board of Study in Statistics and Computer Science

Prof. S R Kodituwakku, Department of Statistics and Computer Science, University of Peradeniya
(Chairman)
Dr. U A J Pinidiyaarachchi, Department of Statistics and Computer Science, University of Peradeniya
(Secretary)
Prof. A A I Perera, Department of Mathematics, University of Peradeniya
Dr. Kanthi Perera, Department of Engineering Mathematics, University of Peradeniya
Dr. Y P R D Yapa, Head, Department of Statistics and Computer Science, University of Peradeniya
Dr. M Sandirigama, Department of Computer Engineering, University of Peradeniya
Prof. S Samita, Department of Crop Science, University of Peradeniya
Mr. Ranil Rajapakse, IFS Software Development Company, Colombo

2.4.10 Board of Study in Zoological Sciences

Dr. R S Rajakaruna, Head, Department of Zoology, University of Peradeniya (Chairperson)
Prof. Samath D Dharmaratne, Department of Community Medicine, University of Peradeniya
(Secretary)
Prof. K B Ranawana, Department of Zoology, University of Peradeniya
Dr. Madhava Meegaskumbura, Department of Zoology, University of Peradeniya
Dr. Shalika Kumburegama, Department of Zoology, University of Peradeniya
Dr. Ashoka Dangolla, Department of Veterinary Clinical Studies, University of Peradeniya
Dr. Rajnish Vanderkone, Department of Biological Sciences, Rajarata University of Sri Lanka,
Mihintale
Dr. Suneth Agampodi, Department of Community Medicine, Rajarata University of Sri Lanka,
Saliyapura

2.5 *Organizational/Operational Structure of the Institute*



3.0 POSTGRADUATE DIPLOMA

3.1 Introduction

PGIS offers the following academic programmes leading directly to the Postgraduate Diploma. PGIS also offers postgraduate diplomas to M.Sc. candidates (see Section 4.8).

Postgraduate Diploma Programme	Coordinator	Board of Study
Information Technology (IT)	Prof. S R Kodituwakku	Statistics and Computer Science
Science Education	Prof. S Karunaratne	Science Education

The course titles of the Postgraduate Diploma Programmes are given in Section 3.13. The medium of instruction of the programmes shall be English.

3.1.1 Course work

Postgraduate Diploma Programmes consist of course work components only. Each programme consists of core courses and optional courses with theory, laboratory and/or fieldwork and seminar components. A theory course, in general, consists of two to three credits where one credit is equivalent to fifteen (15) hours of instruction. For laboratory work and fieldwork where applicable, thirty (30) hours of work is considered as one credit. Students are required to earn **at least** 24 credits in order to obtain the Postgraduate Diploma.

In some Postgraduate Diploma Programmes students are required to follow preliminary courses. The grades earned for preliminary courses will not be counted in the computation of Grade Point Average (GPA). Students may also take non-credit courses (audited courses) to advance their knowledge with the consent of the relevant Board of Study.

3.2 Duration

The duration of the Postgraduate Diploma Programme shall be 12 months. Course work will be conducted over a period of two semesters of 15 weeks each. The initial registration, which is valid for a period of 12 months could be extended by six months on payment of the relevant fees (Section 3.12) or as decided otherwise by the PGIS, under special circumstances.

The courses are offered during weekdays and/or weekends depending on the Postgraduate Diploma programme.

Maximum period allowed for a full-time student to complete the Postgraduate Diploma would be two years from the date of commencement of the programme or as decided otherwise by the PGIS, under special circumstances.

3.3 Admission Requirements

The minimum requirements for registration are:

- (a) i. a B.Sc. Special Degree from a recognized university/institution in the relevant subject/s
or
 - ii. a B.Sc. General Degree from a recognised university/institution in the relevant subject/s
or
any other equivalent qualifications acceptable to the PGIS
- and*
- (b) any other requirement/s as stipulated in the relevant Postgraduate Diploma programme.

3.4 Application Procedure - Same as for the Degree of Master of Science (see Section 4.4).

3.5 Processing of Applications - Same as for the Degree of Master of Science (see Section 4.5).

3.6 Registration Procedure - Same as for the Degree of Master of Science (see Section 4.6).

3.7 Examinations and Evaluation Procedures

The procedure for evaluation of course work is same as that for the Degree of Master of Science (see Section 4.7.1).

3.8 Award of the Postgraduate Diploma

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

- (i) admission requirements as set out in Section 3.3
- (ii) accepted by the PGIS as a candidate for the Postgraduate Diploma Programme
- (iii) duly registered and paid fees for the prescribed duration of the programme
- (iv) obtained at least a grade of C in each course taken for credit and attained a final GPA of 2.75 or above for course work
- (v) satisfactorily completed any other requirements, as specified in the relevant Postgraduate Diploma Programme

3.9 The Effective Date of the Postgraduate Diploma

The effective date of the Postgraduate Diploma shall be the **date on which the final GPA is released** by the PGIS.

3.10 Release of Final Results

The PGIS will call a meeting of the Results Board to consider the award of the Postgraduate Diploma to the candidate/s. 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.

Constitution of the Results Board:

1. Director/PGIS or his nominee (Chairman)
2. Chairman of the relevant Board of Study or his nominee
3. Secretary of the relevant Board of Study
4. Co-ordinator/s of the Postgraduate Diploma Programme

3.11 Transcript

Duly certified transcript/s of a student's academic record will be issued on receipt of an application with the prescribed fee (see Section 3.12).

3.12 Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the PGIS.)

50% of the total programme fee and other fees (excluding those given in 3.12.10 to 3.12.14) should be paid at the time of registration. The balance programme fee should be paid within a period of six months after the first date of registration.

	Fees	Local Candidates SL Rs.	Foreign Candidates	
			SAARC Countries US\$	Other Countries US\$
3.12.1	Application fee ¹	200	5	10
3.12.2	Application processing fee ¹	2000	200	400
3.12.3	Registration fee (<i>per programme</i>) ²	5000	500	1000
3.12.4	Diploma Programme fee			
	1. <i>Science Education</i>	60000	2000	4000
	2. <i>Information Technology</i>	100000	3300	6600
3.12.5	Preliminary Courses, if applicable (<i>per credit</i>)	500	50	100
3.12.6	Library tickets (<i>2 per programme</i>) - refundable	2000	200	400
3.12.7	Library deposit (<i>per programme</i>) - references only	1500	150	300
3.12.8	Science deposit (<i>per programme</i>) - refundable	1500	150	300
3.12.9	Medical fee (<i>per programme</i>)	100	10	20
3.12.10	Repeat course fee (<i>per credit</i>) ³	1000	100	200

3.12.11	Special - Repeat examination fee (<i>per credit</i>)	1000	100	200
3.12.12	Fee for following additional courses outside the main Diploma Programme (<i>per credit</i>)	1500	150	300
3.12.13	Transcript fee: Local	150	15	30
	Foreign	500	50	100
3.12.14	Provisional certificate fee	150	15	30

¹ Payment of Rs. 200/- is required to obtain application documents from the PGIS office. Application forms could also be downloaded from the Internet (<http://www.pgis.lk>). The payment of application processing fee (Rs. 2000/-) should accompany the completed application form when it is submitted to the PGIS office.

² If renewal is necessary, a fee of Rs. 1000.00 will be charged for an additional period of six months.

³ Fee for repeating the same course or a substituted (new) course in place of an original course.

N.B. Please refer to Section 10.0 for the mode of payment.

3.13 Details of Postgraduate Diploma Programmes

List of courses in a given Postgraduate Diploma programme may be revised/changed from time to time by the relevant Board of Study.

3.13.1 Information Technology (IT)

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Preliminary Courses				
SC 404	Introduction to Mathematics	15	0	1
SC 405	Introduction to Computers	10	10	1
SC 406	Introduction to Programming	10	10	1
Semester I				
SC 561	Computer Application Fundamentals	30	30	3
SC 562	Programming Principles	30	30	3
SC 563	System Analysis and Design	25	10	2
SC 564	Introduction to Database Systems	15	30	2
SC 565	Introduction to Computers and Computer Architecture	30	-	2
Semester II				
SC 566	Communication Networks*	30	-	2
SC 567	Educational Technologies*	30	30	3
SC 568	Research Methodology*	20	20	2
SC 569	Advanced Programming Techniques*	30	30	3
SC570	Implementation of Database Applications*		60	2
SC 571	Document Markup Languages*	30		2
SC 572	Web Page Construction*		60	2

SC 573	Software Design and Development*	30		2
SC 574	Mini Project in Computer Science*		90	3
SC 575	Programming Web Applications*	30	30	3
SC 576	Web Servers and Web Technologies*	20	20	2

* *Optional courses*

Students are required to obtain at least 12 credits from optional courses.

3.13.2 Science Education

Course Code	Course Title	No. of hrs.	No. of Credits
SED 501	World View of Science	30	2
SED 502	Science Education: A Comparative Perspective	30	2
SED 503	Teaching Science and Mathematics for Understanding	45	3
SED 504	Teachers as Researchers	45	3
SED 505	Philosophical Inquiry and Contemporary Issues in Science Education*	30	2
SED 506	Learners and Learning in Context*	30	2
SED 507	Child Development and Psychobiology *	30	2
SED 508	Use of Computers in Teaching Science/Mathematics*	30	2
SED 509	Classroom Management for Science/Mathematics Teaching*	30	2
SED 510	Inclusive Education for Children with Special Needs to Learn Science/Mathematics*	30	2
SED 511	Curriculum Design for Science/Mathematics Teaching*	30	2
SED 512	Assessment Practices in Science/Mathematics Classrooms*	30	2
SED 513	Teaching Practice	90	3
SED 514	Independent Study	90	3
SED 515	Guidance and Counselling in Science/Mathematics Education*	30	2

* *Optional courses*

Students are required to obtain at least 8 credits from optional courses.

4.0 DEGREE OF MASTER OF SCIENCE (M.Sc.)

4.1 Introduction

PGIS offers the following programmes leading to the Degree of Master of Science.

M.Sc. Programme	Coordinator(s)	Board of Study
Clinical Biochemistry	Prof. R Sivakanesan Dr. H K I Perera	Biochemistry and Molecular Biology
Experimental Biotechnology	Dr. P Samaraweera Prof. J G S Ranasinghe	
Analytical Chemistry	Prof. M M A N Nawarathne	Chemical Sciences
Industrial Chemistry	Dr. M Y U Ganehenege Dr. C S Kalpage	
Nanoscience and Nanotechnology	Prof. R M G Rajapakse Dr. R G S C Rajapakse	
Disaster Management	Prof. B S B Karunaratne Prof. R L R Chandrajith Dr. L C Kurukulasooriya	Earth Sciences
Engineering Geology and Hydrogeology	Dr. H A Dharmagunawardhane Dr. A A J K Gunatilake	
Gemmology and Industrial Minerals	Dr. S W Nawaratne Prof. C P Udawatte	
GIS and Remote Sensing	Dr. A A J K Gunatilake	
Water Resources Management	Dr. H A Dharmagunawardhane	
Biodiversity, Ecotourism and Environment Management	Dr. S K Yatigammana Mr. C Wijesundara	Environmental Science
Environmental Science	Dr. G W A R Fernando	
Industrial Mathematics	Prof. W B Daundasekara	Mathematics
Medical Physics	Dr. V Sivakumar Mr. A Dilip Kumara	Physics
Physics of Materials	Dr. L R A K Bandara	
Biodiversity Conservation Management	Dr. G A D Perera Dr. K M G G Jayasuriya	Plant Sciences
Medical Microbiology	Dr. C L Abayasekara Prof. V Thevanesam	
Plant Sciences	Dr. K M G G Jayasuriya	
Postharvest Technology of Fruits and Vegetables	Dr. J W Damunupola	

Science Education	Prof. S Karunaratne Dr. H M S P Madawala Weerasinghe Dr. C V Hettiarachchi Dr. D M Samarathunga Dr. J P Liyanage	Science Education
Applied Statistics	Dr. K Perera	Statistics & Computer Science
Computer Science	Prof. A A I Perera	
Applied Epidemiology	Dr. N P S Kumburegama	Zoological Sciences

The course titles of the M.Sc. programmes are given in Section 4.15. The medium of instruction of the programmes shall be English.

4.1.1 Course work

The course work will consist of core courses and optional courses. The course work component comprises of theory courses and laboratory and/or fieldwork. A theory course will, in general, consist of two to three credits where one credit is equivalent to fifteen (15) hours of instruction. For laboratory work and fieldwork, where applicable, thirty (30) to forty five (45) hours of work is considered as one credit. Students are required to earn a minimum of 24 credits of course work for the existing M.Sc. programmes. The minimum number of credits specified by the PGIS may vary for the new M.Sc. programmes.

In some M.Sc. programmes, students may be required to follow preliminary courses, which will not be credited. Students may also take non-credit courses (audited courses) to advance their knowledge with the consent of the relevant Board of Study.

4.1.2 Release of Final Grade Point Average (GPA) and Commencement of Research Project

Those who obtain a final GPA of 3.0 or above are eligible to proceed to undertake a research project under a supervisor appointed with the approval of the relevant Board of Study.

4.1.3 Research

Students are required to carry out a research project at an academic/research/industrial institution where suitable laboratory facilities are available. The research component shall be equivalent to six credits unless otherwise specified by the PGIS. The title of the research project, place of work, and the supervisor(s)* are to be approved by the relevant Board of Study prior to the commencement of the project. For this purpose the 'M.Sc. Research Project Proposal Submission Form' (Form 4.1.3A) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk. is to be used.

**At least one of the supervisors should be from the institution where the major part of the research is carried out.*

4.1.3.1 Mid-Term Progress Review of Research Work

Progress of research work 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 Chairperson of the Board of Study is a supervisor or is not available, the Director or his nominee shall be the Chairperson of the panel)
2. Co-ordinator(s) of the relevant M.Sc. programme
3. Two Reviewers nominated by the relevant Board of Study
4. The Supervisor(s) [as observer(s)]

4.2 Duration

The minimum duration of an existing M.Sc. programme shall be 18 months. The minimum duration specified by the PGIS may **vary** for the new M.Sc. programmes. The research component consists of a project of 3 - 6 month duration (full-time) unless otherwise specified by the PGIS. Any request for extension of the deadline for submission of an M.Sc. project report should be addressed to the Director through the supervisor, M.Sc. programme coordinator and the Chairman of the relevant Board of Study.

The courses are offered during weekdays and/or weekends depending on the M.Sc. programme. However, in carrying out the research component of the programme, continuous attendance is compulsory during regular working hours of the week. Therefore, those who are employed may be required to obtain leave of absence from their work places to be eligible to carry out full-time research.

Maximum period allowed for a student to complete the M.Sc. degree shall be twice the minimum period specified for the particular M.Sc. programme or as decided by the PGIS, under special circumstances.

4.3 Admission Requirements

The minimum requirements for registration are:

(a) i. a B.Sc. Special Degree from a recognized university/institution in the relevant subject
or

ii. a B.Sc. General Degree from a recognised university/institution in the relevant subject
or

any other equivalent qualifications acceptable to the PGIS

and

(b) any other requirement/s as stipulated in the relevant M.Sc. programme

4.4 Application Procedure

An applicant is expected to refer to advertisements in printed/electronic media or PGIS website (<http://www.pgis.lk>) for details regarding the commencement of M.Sc. Programmes. Every application for enrolment must be made in duplicate on the prescribed forms obtainable from the PGIS on payment of a fee or downloaded from the Internet. A prescribed processing fee should accompany the completed application form. The relevant academic/professional qualifications possessed by the candidate should be supported by academic transcripts and authenticated copies of degree/diploma certificates. 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. Applicants are advised to submit certified photocopies of original certificates along with the completed application form. The documents submitted in support of an application shall become the property of the PGIS. In the event of any discrepancy between the name(s) appearing in an applicant's academic/professional/birth certificates and the name(s) given by the applicant in the application form, an affidavit to the effect that the applicant is one and the same person known by all such name(s) or relevant certificates should be submitted. Duly completed application forms should be forwarded to the Assistant Registrar of the PGIS.

4.5 Processing of Applications

The applications will be considered 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 in some cases also for a subject based test. The selection shall be based on academic merit and the performance at the test(s) and an interview (where applicable) conducted by the PGIS. The applicants shall be informed of their acceptance/non-acceptance to the postgraduate programme. With regard to admission to any M.Sc. Programme, the decision of the PGIS shall be final.

4.6 Registration Procedure

4.6.1 Registration

A person who has been selected as a postgraduate student shall be required to register for the given academic year to follow the particular postgraduate programme of study. Originals of all certificates should be produced before admission as required by the PGIS. The date of registration shall be specified by the PGIS.

i. Enrolment for Courses

At registration, students are required to enroll for the courses he/she wishes to follow by submitting the duly completed course enrolment form together with the receipt of payment of the required fees (Section 4.14).

ii. Dropping/Adding of Courses

If after registration, a student wishes to drop or add one or more courses he/she should do so by submitting the duly completed relevant application form before the date specified for such purpose in the approved calendar of dates and such changes should be approved by the instructor/s and the programme coordinator/s concerned.

4.6.2 Continuation of Registration

Registration should be maintained continuously throughout the M.Sc. Degree programme by paying the appropriate fees (Section 4.14) as required by the PGIS. Students shall not be permitted to proceed to the research project, unless all fees are settled and registration is maintained.

4.6.3 Concurrent Registration

A student who is registered for a postgraduate degree programme in the PGIS or any other institution is not permitted to register concurrently for another degree 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. In case of such withdrawals, adjustments of fees and refunds, will not be made.

4.6.5 *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. All such changes to the registration status must receive the approval of the relevant Board of Study.

4.6.6 *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 indicating the duration of postponement. Each such request shall be considered by the PGIS on the recommendation of the relevant Board of Study.

4.6.7 *Cancellation of Registration*

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

4.6.8 *Leave of Absence*

Leave of absence may be granted only on medical grounds or any other valid reasons acceptable to the PGIS.

4.7 *Examinations and Evaluation Procedures*

4.7.1 *Evaluation of Course work*

Each course taken by the student will be evaluated through the scheme given in Section 4.7.1.1.

4.7.1.1 *Evaluation Scheme*

For all courses a minimum of 80% attendance is expected. The evaluation of each course shall be based on within course and end of course examinations, and assignments. 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%
Continuous assessments (mid-semester examination, assignments, etc.)	40%

Courses with laboratory and/or fieldwork shall be evaluated, where applicable, on a continuous assessment basis.

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

4.7.1.2 Grade Points and Grade Point Average (GPA)

The Grade Point Average (GPA) will be computed using the grades earned for core courses and optional courses, taken for credit. Preliminary courses, industrial training, research project and seminar will be evaluated on a pass/fail basis.

Audited courses will be marked as 'AU' on the transcript upon certification by the relevant instructor that the student has satisfied the 80% attendance requirement.

A grade 'I' (incomplete) may be given, if the student is unable to complete the course due to valid reasons, and the work in the course unit is adequately completed and of acceptable standard. Records should be kept in the student's personal file regarding the reasons for this grade and a scheme for its removal.

Withdrawal from a course unit within the first two weeks of its commencement is allowed provided that the minimum credit requirement is not violated. Withdrawals after this period cannot be effected, except on medical grounds or other valid reasons. These courses will be assigned a grade 'W'. Failure to complete a course unit, which has not been recorded as a withdrawal or as incomplete, will be graded as F.

A student may complete the course for which an 'I' grade is assigned, as a proper candidate, on the first occasion the course is next offered.

On completion of the end of course examination the instructor(s) is/are required to hand over the grades of a given course to the programme coordinator who will assign the Grade Points using 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 Grade Point Average (GPA) will be computed using the formula:

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

4.7.1.3 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.

4.7.1.4 Repeat Courses

If a student fails a course 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 repeating the course, and repeat only the course examinations if recommended by the teacher-in-charge or M.Sc. Programme Coordinator. The student may repeat the same course or a substituted (new) optional course in place of the original course. A student is allowed to repeat four credits of coursework free-of-charge. The maximum number of credits a candidate is allowed to repeat is twelve. The maximum grade, a candidate could obtain at a repeat attempt is a B and he/she is allowed to repeat a given course only on two subsequent occasions. The candidate is expected to handover the duly completed and signed 'Registration Form for Repeat Courses/Examinations' (Form 4.7.1.4A) together with the receipt of payment of the repeat course/examination fee to the Senior Assistant Registrar of the PGIS. The Form 4.7.1.4A is available at the PGIS office or downloadable from the PGIS website: www.pgis.lk. A photocopy of the approved Form 4.7.1.4A will be issued to the student to produce at the class/examination as an admission document.

4.7.2 Evaluation of Research Project

Research project will be evaluated on the basis of a written report (M.Sc. project report) and oral presentation (see Section 6.0 for the format of the project report).

4.7.2.1 Initial Submission of Project Report

After completing the research project, two copies of the project report (in temporarily bound form) should be submitted, in the first instance, through the supervisor/s, the M.Sc. programme co-ordinator 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 4.7.2.1A) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk.

4.7.2.2 Evaluation of Project Report

The Director shall send a copy of the project report to the examiner recommended by the relevant Board of Study for evaluation. The examiner, wherever possible, shall be external to the place where the research work was carried out. The examiner will send the evaluation report to the Director of the PGIS. The report of the examiner will then be sent to Chairman/Board of Study so that the candidate will be informed through the programme coordinator and the supervisor/s about corrections and/or modifications to be effected to the project report, if any, as suggested by the examiner.

If the examiner suggests major revision/rejection of the project report the Director shall send the report to the relevant Board of Study to take appropriate action. In cases where there are major revisions of project report, two copies of the **revised project report** in temporary binding should be submitted by the candidate through supervisor/s, M.Sc. Coordinator and the Chairman of the relevant Board of Study to the Director, PGIS. The supervisor/s is/are expected to certify that all the corrections/revisions are being made to the project report as required by the examiners by signing and forwarding the 'Resubmission Form' (Form 4.7.2.1B) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk.

4.7.2.3 Oral Examination

If the project has been evaluated favourably by the examiner, the Board of Study and the Programme Coordinator will make arrangements to hold an oral examination. In cases where major revisions are recommended, oral examination may be held after the revised report has been favourably, re-examined by the examiner.

Constitution 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. Co-ordinator(s) of the M.Sc. programme
3. Two examiners (including the examiner of project report) 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 (names of the examiners should not be disclosed) will hand over the project report back to the candidate for suggested revisions, if any.

4.7.2.4 Final Submission of Project Report

Four or more copies (*depending on the number of supervisors*) of the project report in the permanently bound form, with revisions, if any, prepared according to the guidelines given in Section 6.0 should be submitted through the Supervisor/s, the M.Sc. programme co-ordinator and 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 project report, 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 4.7.2.4A) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk.

4.8 Award of the M.Sc. Degree/Diploma

The M.Sc. Degree may be awarded to a candidate who has satisfied the following requirements:

- (i) admission requirements as set out in Section 4.3,
- (ii) accepted by the PGIS as a candidate for the M.Sc. Degree 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 final GPA of 3.00 or above for course work,
- (v) satisfactorily completed the research component and any other requirements, as specified.

However, a candidate who has satisfied the requirements (i) to (iii) above, completed any other requirements specified by the Board of Study satisfactorily and obtained a final GPA in the range of 2.75 - 2.99 for course work is deemed to have completed the Postgraduate Diploma which will be awarded accordingly.

Students who reach a final GPA of 3.00 or above but do not wish to continue with the research project or fail the research project or taken more than the minimum duration stipulated to complete the M.Sc. degree are also deemed to be eligible for the award of the Diploma and will be awarded accordingly.

The effective date of the Postgraduate Diploma shall be the date on which the final GPA is released. The effective date of the M.Sc. degree shall be determined according to 4.10.

4.9 Academic Dress

The academic dress for the Degree of Master of Science 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.

4.10 The Effective Date of the M.Sc. Degree

4.10.1 The effective date of the degree should be a date subsequent to the expiry of the minimum duration of a given programme.

4.10.1.1 If the Panel of Examiners determines that both the project report 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 submission of the project report

- i. *If the project report is accepted without corrections* and handed over in 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 project report is accepted with minor corrections* and submitted in 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 project report is accepted with minor corrections* and submitted in 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 project report.

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

- i. *If the project report is accepted without corrections* and handed over in 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 submission of the project report.
- ii. *If the project report is accepted with minor corrections* and submitted in 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 submission of the project report.

4.10.1.2 If the Panel of Examiners determines that the project report submitted is acceptable with major corrections, then the candidate is required to resubmit the project report to the PGIS office with all the required corrections made. The effective date shall be determined, after the evaluation of the resubmitted project report, according to 4.10.1.1 (a) or 4.10.1.1 (b).

4.10.2 If the Panel of Examiners determines that the **project report submitted is of acceptable standards, but the oral examination has to be repeated** due to unsatisfactory defence, then the effective date will be determined by 4.10.1.1 (a) or 4.10.1.1 (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 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.

Constitution 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 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 Transfer to the M.Phil. Degree Programme

A student registered for an M.Sc. degree programme who has achieved a final GPA greater than 3.00 for course work and has shown excellent progress in his/her research project, may apply through the supervisor, for a transfer to the M.Phil. degree programme. However, the request should be made within 4 months after the official announcement of GPA and immediately after the mid progress review seminar. The transfer will be made upon the recommendation of the relevant Board of Study and the panel of progress review seminar.

4.14 Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the PGIS.)

50% Of the total programme fee and other fees (excluding those given in 4.14.10 to 4.14.14) should be paid at the time of registration. The balance fees should be paid within a period of six months after the first date of registration.

	Fees	Local Candidates SL Rs.	Foreign Candidates	
			SAARC Countries US\$	Other Countries US\$
4.14.1	Application fee*	200	5	10
4.14.2	Application processing fee*	2000	200	400
4.14.3	Registration fee (for a maximum period of 18 months per programme)**	5000	500	1000
4.14.4	M.Sc. Programme fee ***			
	1) <i>Analytical Chemistry</i>	125000	4200	8400
	2) <i>Applied Epidemiology</i>	125000	4200	8400
	3) <i>Applied Statistics</i>	100000	3300	6600
	4) <i>Biodiversity Conservation Management</i>	100000	3300	6600
	5) <i>Biodiversity, Ecotourism and Environment Management</i>	125000	4200	8400
	6) <i>Clinical Biochemistry</i>	190000	6400	12800
	7) <i>Computer Science</i>	150000	5000	10000
	8) <i>Disaster Management</i>	125000	4200	8400
	9) <i>Engineering Geology and Hydrogeology</i>	125000	4200	8400
	10) <i>Environmental Science</i>	110000	3700	7400
	11) <i>Experimental Biotechnology</i>	220000	7300	14600
	12) <i>Gemmology and Industrial Minerals</i>	125000	4200	8400
	13) <i>GIS & Remote Sensing</i>	125000	4200	8400
	14) <i>Industrial Chemistry</i>	125000	4200	8400
	15) <i>Industrial Mathematics</i>	100000	3300	6600
	16) <i>Medical Microbiology</i>	140000	4600	9200
	17) <i>Medical Physics</i>	125000	4200	8400
	18) <i>Nanoscience and Nanotechnology</i>	150000	5000	10000
	19) <i>Physics of Materials</i>	125000	4200	8400
	20) <i>Plant Sciences</i>	100000	3300	6600
	21) <i>Postharvest Tech. of Fruits and Vegetables</i>	100000	3300	6600
	22) <i>Science Education</i>	100000	3300	6600
	23) <i>Water Resources Management</i>	125000	4200	8400
4.14.5	Preliminary Courses, if applicable (per credit)	500	50	100

4.14.6	Lending library fee (maximum of 2 tickets), refundable	2000	200	400
4.14.7	Standard library fee (reference service), non-refundable	1500	150	300
4.14.8	Science deposit (<i>per programme</i>), refundable	1500	150	300
4.14.9	Medical fee (<i>per programme</i>)	150	15	30
4.14.10	Repeat course fee (<i>per credit</i>)****	2000	200	400
4.14.11	Repeat examination fee (<i>per credit</i>)	2000	200	400
4.14.12	Fee for following additional courses outside the main M.Sc. Programme (<i>per credit</i>)	1500	150	300
4.14.13	Transcript fee: Local	150	15	30
	Foreign	500	50	100
4.14.14	Provisional certificate fee	150	15	30

* Payment of Rs. 200/- is required to obtain application documents from the PGIS office. Application forms could also be downloaded from the Internet (<http://www.pgis.lk>). The payment of application processing fee (Rs. 2000/-) should accompany the completed application form when it is submitted to the PGIS office.

** After a lapse of 18 months (or 6 months after the release of final GPA, whichever comes late), if renewal is necessary a fee of Rs. 1000.00 will be charged for every six months.

*** The programme fee includes a bench fee of Rs. 2000.00 per candidate and the examination fee. A maximum of 50% of programme fee is allocated for research project expenses.

If the student is requested to resubmit the project report after major revisions, a repeat examination fee of Rs. 1500/- will be charged at the time of submission of the revised project report.

**** Fee for repeating the same course or a substituted (new) optional course in place of the original course. N.B. Please refer to Section 10.0 for the mode of payment.

4.15 Details of M.Sc. Degree Programmes

List of courses in a given M.Sc. programme may be revised/changed from time to time by the relevant Board of Study.

4.15.1 Analytical Chemistry

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Semester I				
CH 501	Fundamentals of Analytical Methods	45	-	3
CH 502	Instrumental Analysis	30	30	3
CH 503	Spectroscopic Methods	45	-	3
CH 504	Environmental Analytical Chemistry	15		1
CH 511	Advanced Analytical Chemistry Laboratory I – Classical Methods		70	2
Semester II				
CH 516	Analytical Separations	30	-	2
CH 517	Electroanalytical Chemistry	30	-	2
CH 518	Special Topics in Analytical Chemistry I *	45	-	3
CH 519	Special Topics in Analytical Chemistry II *	45	-	3
CH 526	Advanced Analytical Chem. Laboratory II – Instrumental Methods		100	3
CH 596	Research Methodology and Scientific Writing	15	-	1
CH 597	Seminar			1
CH 599	Research Project			6

* Optional courses

Students are required to obtain 3 credits from optional courses.

4.15.2 Applied Epidemiology

Course Code	Course Title	Lecture hours	Practical hours	No. of Credits
ZLE 501	Introduction to Epidemiology	15		1
ZLE 502	Methods in Epidemiology I	20	20	2
ZLE 503	Methods in Epidemiology II* (prerequisite: ZLE 502)	20	20	2
ZLE 504	Environmental Epidemiology	20	20	2
ZLE 505	Overview of Public Health	20	20	2
ZLE 506	Zoonoses and Public Health	30	30	3
ZLE 507	Public Health Policy and Law	15		1
ZLE 508	Infectious Disease Surveillance and Outbreak Investigation	20	20	2
ZLE 509	Bioinvasions, Bioterrorism, Biosecurity and Public Health	30	30	3
ZLE 510	Biostatistics and Statistical Applications in Health Sector	20	20	2
ZLE 511	Health Care Systems: Management and Evaluation Techniques*	20	20	2

ZLE 512	Sociology of Health, Illness and Health Promotion*	15		1
ZLE 513	Research Methodology, Scientific writing and Seminar	20	20	2
ZLE 514	Independent Study*			1
ZLE 515	Research Project	6 months		6

* *Optional courses*

Students are required to obtain 4 credits from optional courses.

4.15.3 Applied Statistics

Course Code	Course Title	Lecture hours	Practical hours	No. of Credits
Preliminary Courses				
SC 401	Mathematics ¹	30	-	-
SC 402	Computer Programming	20	20	-
SC 403	Statistical Methods	30	-	-
Semester I				
SC 501	Theory of Statistics	30	-	2
SC 502	Data Analysis and Presentation	30	30	3
SC 503	Design and Analysis of Experiments	45	-	3
SC 504	Regression Analysis	30	-	2
SC 505	Sampling Techniques	30	-	2
SC 506	Multivariate Methods I*	30	-	2
SC 507	Stochastic Processes and Applications*	30	-	2
Semester II				
SC 516	Time Series Analysis	30	-	2
SC 517	Non-Parametrics and categorical data analysis	30	-	2
SC 518	Independent Study	30	-	2
SC 519	Multivariate Methods II*	30	-	2
SC 520	Experimental Techniques*	30	-	2
SC 521	Biased Estimation*	30	-	2
SC 522	Binary Data Analysis*	30	-	2
SC 523	Quality Control Statistics*	30	-	2
SC 524	Special Topics ²	30	-	2
SC 599	Research Project (3 - 6 months)			6

Preliminary courses are not considered in the computation of the GPA.

¹ *Compulsory for those without a mathematics background*

² *Special topics will be notified to the students each year*

* *Optional courses*

Students are required to obtain 4 credits from optional courses.

4.15.4 Biodiversity Conservation Management

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Semester I				
PL 504	Biostatistics	15	30	2
PL 531	Characterization of Biodiversity	30	30	3
PL 532	Inventorying and Monitoring of Biodiversity	30	30	3
PL 533	Sri Lankan Biodiversity	15	60	3
PL 534	Population Dynamics	30	30	3
Semester II				
PL 546	Behavioral Ecology *	15	30	2
PL 547	Community and Ecosystem Dynamics	15	30	2
PL 548	Conservation Biology *	15	-	1
PL 549	Protected Area Classification and Legislation	15	30	2
PL 550	Conservation Management of Biodiversity	15	30	2
PL 551	Sustained Yield Management of Biodiversity *	30	30	3
PL 552	Bioeconomics and Biopolitics *	30	-	2
PL 599	Research Project (3 - 6 months)			6

* *Optional courses*

4.15.5 Biodiversity, Ecotourism and Environment Management

Course Code	Course Title	Lecture hrs.	Practical/ Field Work hrs.	No. of credits
Semester I				
ENM 511	Environmental Biology	21	18	2
ENM 512	Population Ecology and Human Impact on Resources	24	12	2
ENM 513	Biodiversity and Its Conservation	24	12	2
ENM 514	Tourism and Ecotourism in Sri Lanka	24	12	2
ENM 515	Ecotouristic Potential of Sri Lanka	24	12	2
ENM 516	Promotion of Ecotourism	24	12	2
Semester II				
ENM 521	Management, Conservation and Sustainable Development	24	12	2
ENM 522	Legal Protection of Environment and Biodiversity	15	-	1
ENM 523	Pollution of Environment and Pollution Management	24	12	2
ENM 524	Habitat Management	24	12	2
ENM 525	Wildlife Management	24	12	2
ENM 526	Aesthetic Landscape Management in Tourist Facilities	10	10	1
ENM 527	Sri Lanka's Ecotourism Resource Base	15	30	2
ENM 599	Research Project	6 Months		6

4.15.6 Clinical Biochemistry

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Preliminary Courses				
BM 401	Human Biology and Metabolism ¹	30	-	-
BM 402	Basic Sciences ²	30	-	-
Semester I				
BM 501	Laboratory Environment and Biological Samples	10	10	1
BM 502	Analytical Techniques in Clinical Biochemistry	30	30	3
BM 503	Biochemical Immunology and Endocrinology	30	30	3
BM 504	Biochemical Haematology	10	10	1
BM 505	Enzymology	10	10	1
BM 506	Functional Tests	30	90	5
Semester II				
BM 516	Human Molecular Genetics*	15	30	2
BM 517	Paediatric Biochemistry and Intensive Care Biochemistry	10	10	1
BM 518	Therapeutic Drug Monitoring and Toxicology	15	30	2
BM 519	Clinical Nutrition*	20	20	2
BM 520	Laboratory Training	10	40	2
BM 521	Statistical Analysis, Quality Control, Computing and Data Handling	15	30	2
BM 522	Clinical Interpretation and Ward Classes ³	75	-	-
BM 599	Research Project (minimum of four months duration)			6

Preliminary courses are not considered in the computation of the GPA.

¹ Compulsory for Science graduates

² Compulsory for Medical graduates

³ Attendance is compulsory

* Optional courses

Students are required to obtain 3 credits from optional courses.

4.15.7 Computer Science

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Preliminary Courses				
SC 411	Introduction to Computer Science	30	-	-
SC 412	Introduction to theory of computation	30	-	-
SC 413	Data structures and software principles	30	-	-
SC 414	Introduction to Computer Architecture	30	-	-
SC 415	Programming and electronics laboratories	-	45	-
SC 416	Seminar	-	15	-
Semester I				
SC 531	Database systems *	30	-	2
SC 532	Combinatorial mathematics *	30	-	2

SC 533	Introduction to parallel computing *	30	-	2
SC 534	Programming language design and compilers *	30	-	2
SC 535	Operating system design	30	-	2
SC 536	Graph theory*	30	-	2
SC 537	Computer Networks & Distributed systems	30	-	2
SC 538	Artificial Intelligence	30	-	2
SC 539	Advanced topics in computer graphics	30	-	2
Semester II				
SC 546	Software engineering	30	-	2
SC 547	Computer architecture *	30	-	2
SC 548	Systems analysis/Systems engineering *	30	-	2
SC 549	Artificial Neural Networks *	30	-	2
SC 550	Linear programming *	30	-	2
SC 551	Communication networks for computers *	30	-	2
SC 552	Digital image processing*	30	-	2
SC 553	Project management*	30	-	2
SC 554	Special topics in Computer Science	30	-	2
SC 555	Laboratory work	-	60	2
SC 597	Seminar			1
SC 599	Research project (minimum of three months duration)			6

Preliminary courses are not considered in the computation of the GPA.

** Optional Courses*

4.15.8 Disaster Management

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
Preliminary courses				
ESD 401	Preliminary Courses in Earth Sciences	15	-	-
ESD 402	Preliminary Courses in Climate Sciences	15	-	-
ESD 403	Preliminary Courses in Engineering	15	-	-
ESD 404	Computer Applications	15	-	-
ESD 405	Statistics Applications	15	-	-
General courses				
Semester I				
ESD 501	Introduction to Disaster Management	15	-	1
ESD 502	Risk Determination and Treatment	15	-	1
ESD 503	Disaster Preparedness and Emergency Management	30	-	2
ESD 504	Social, Cultural, and Administrative Aspects	30	-	2
ESD 505	Application of GIS and RS in Disaster Management	30	-	2
ESD 506	Landslides I: origin, occurrence and mitigation*	30	-	2
ESD 507	Seismic Hazards*	30	-	2
ESD 508	Coastal Hazards*	30	-	2

ESD 509	Hydrological Hazards*	30	-	2
Semester II				
ESD 510	Meteorological (Climatological) Hazards*	30	-	2
ESD 511	Industrial Hazards*	30	-	2
ESD 512	Fire Hazards*	30	-	2
ESD 513	Public Health and Biological Hazards*	45	-	3
ESD 514	Agriculture and Veterinary Hazards*	30	-	2
Specialized courses				
ESD 520	Executive Leadership and administrative skills*	30	-	2
CE 668	Hazard Forecasting and Mitigation*	30	-	2
CE 638	Urban/ Rural Planning and Hazard Mapping*	30	-	2
CE 669	Advanced Course on Landslides and Seismic Hazards*	30	-	2
CE 697	Advanced Course on Coastal and Hydrological Hazards*	30	-	2
CE 639	Design of Structures for Cyclones and High Winds*	15	-	1
CE 698	Mitigation of Industrial Hazards*	15	-	1
ESD599/C E699	Research Project			6

Preliminary courses are compulsory for those without sufficient background knowledge and they are not considered in the computation of the GPA.

CE 6XX courses will be offered by the Faculty of Engineering, University of Peradeniya.

** Optional courses*

4.15.9 Engineering Geology and Hydrogeology

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Semester I				
ES 531	Basic Geology 2(2-2) ¹	30	30	3
ES 532	Basic Mechanics 2(2-0) ²	30	-	2
ES 533	Fundamentals of Hydrogeology 2(2-0)	30	-	2
ES 534	Fundamentals of Engineering Geology 2(2-0)	30	-	2
ES 535	Site Investigation 2(2-F)	30	F	2
ES 536	Rock Mechanics 3(2-2)*	30	30	3
ES 537	Soil Mechanics 3(2-2)*	30	30	3
ES 538	Photogeology and Remote Sensing 3(2-2)*	30	30	3
Semester II				
ES 546	Applications of Engineering Geology 3(2-F)	30	F	2
ES 547	Applied Hydrogeology 3(2-2)	30	30	3
ES 548	Hydrogeochemistry and Water Quality 3(2-2)	30	30	3
ES 549	Computer Software Applications 2(1-2)	15	30	2
ES 550	Applied Geophysics 3(2-2)*	30	30	3
ES 551	Tunnelling and Underground Excavations 3(2-F)*	30	F	2
ES 552	Landslides and Stability of Slopes 3(2-F)*	30	F	2
ES 553	Environmental Geology 2(2-F)*	30	F	2

ES 554	Bore Hole Techniques 2(2-F)*	30	F	2
ES 555	Project Procedures 2(2-0)*	30	-	2
ES 556	Water Resources Management 2(2-0)*	30	-	2
ES 557	Field Monitoring and Instrumentation 3(2-F)*	30	F	2
ES 558	Statistics 2(2-0)*	30	-	2
ES 559	Groundwater modelling 3(2-2)*	30	30	3
ES 599	Research Project (3 - 4 months duration)			6

¹ *Foundation course for non-Geology graduates*

² *Foundation course for Geology graduates*

F - Field work, demonstrations and excursions

** Optional Courses*

4.15.10 Environmental Science

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical/ Field Work hrs.</i>	<i>No. of Credits</i>
Preliminary Courses				
ENS 401	Introductory Biology	20	20	-
ENS 402	Bio-Statistics	20	20	-
Semester I				
ENS 511	Planet Earth: Geological Environment, Atmosphere and Climate	24	12	2
ENS 512	Biosphere Organization and Functioning: Ecosystems and Populations	24	12	2
ENS 513	Biodiversity, Human Population Dynamics and Man's Impact on Environment	24	12	2
ENS 514	Air and Sound Pollution	24	12	2
ENS 515	Water Resources and Water Pollution	21	18	2
ENS 516	Land Pollution and Solid and Hazardous Waste Management	21	18	2
ENS 551	Research Methodology, Scientific Writing and Seminar	15	Seminar	1
Semester II				
ENS 521	Environmental Problems and Disasters in Sri Lanka and Their Alleviation	24	12	2
ENS 522	Environment Management and Sustainable Development	24	12	2
ENS 523	Legal Protection of Environment	15	-	1
ENS 531	Energy Resources, Use, Concepts and Alternatives*	15	-	1
ENS 532	Agriculture and Toxic Chemicals*	24	12	2
ENS 533	Industrial Waste Management*	21	18	2
ENS 534	Environment Monitoring and Sampling techniques*	15	30	2
ENS 535	Wetlands and Their Exploitation*	21	18	2
ENS 536	Marine Resources and Marine Pollution*	21	18	2
ENS 537	Environmental Geology*	21	18	2
ENS 538	Environmental Health*	15	-	1
ENS 539	Environment and Farming Practices*	21	18	2

ENS 540	Cleaner Production*	10	10	1
Research Project				
ENS 599	Research Project	6 Months		6

Preliminary courses are not considered in the computation of the GPA.

** Optional Courses*

Students are required to obtain 6 credits from optional courses.

4.15.11 Experimental Biotechnology

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of credits
Semester I				
MB 531	Overview on biotechnology	15	-	-
MB 532	Issues related to biological resources	5	20	1
MB 533	Molecular cell biology	30	30	3
MB 534	Protein chemistry	15	45	2
MB 535	Molecular genetics	15	30	2
MB 536	Molecular microbiology	15	45	2
MB 537	Immunology	15	45	2
MB 538	Recombinant DNA technology	15	30	2
MB 539	Industrial biotechnology	5	50	2
MB 540	Bioinformatics	15	30	2
Semester II				
MB 546	Advance immunology*	15	30	2
MB 547	Advanced Biochemistry*	15	30	2
MB 548	Animal Cell culture* ¹	10	40	2
MB 549	Animal Developmental biology* ¹	10	40	2
MB 550	Animal Transgenics* ¹	15	-	1
MB 551	Recent applications in animal biotechnology* ¹	10	40	2
MB 552	Biotechnology in medicine* ¹	15	30	2
MB 553	Plant Developmental biology* ²	10	10	1
MB 554	Plant tissue culture* ²	10	55	2
MB 555	Biotechnology in plant breeding* ²	15	30	2
MB 556	Plant Transgenics* ²	15	-	1
MB 557	Recent applications in Plant biotechnology* ²	10	40	2
MB 558	Biostatistics	15	30	2
MB 597	Seminar	-	-	1
MB 599	Research Project	(3 - 6 months)		6

** Optional Courses*

**¹ Optional Courses - Animal biotechnology*

**² Optional Courses - Plant biotechnology*

Students are required to obtain 3 credits from optional courses.

4.15.12 Gemmology and Industrial Minerals

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
<i>Semester I</i>				
<i>Common Courses for M.Sc. Programme in Gemmology/Industrial Minerals</i>				
ETS 501	Basic Geology and Geology of Sri Lanka	30	30	3
ETS 502	Mineral and Crystal Chemistry and Elementary Crystallography	15	-	1
ETS 503	Crystallography ¹	15	30	2
ETS 504	Geochemistry of the Elements and Geochemistry and Geophysics in Mineral Exploration	30	D	2
ETS 505	Introductory Structural Geology ²	15	-	1
ETS 506	Exploration and Mining Methods	15	-	1
ETS 507	Environmental Engineering	15	-	1
ETS 508	Data Analysis in Geology*	15	-	1
ETS 509	Photogeology, Remote Sensing and Geographical Information Systems*	15	30	2
<i>Semester II</i>				
<i>Special Courses for M.Sc. Programme in Gemmology</i>				
ETS 510	Fundamentals of Gemmology	30	-	2
ETS 511	Descriptive Gemmology I	15		1
ETS 512	Descriptive Gemmology II	15	-	1
ETS 513	Management of Gem Industries and National and International Gem Trade	15	-	1
ETS 514	Colour Enhancement and Value Addition	15		1
ETS 515	Fashioning and Evaluation of Gemstones	15		1
ETS 516	Advanced Gemmology	15	-	1
ETS 517	Gems and Gem Resources of Sri Lanka	15	F	1
ETS 518	Optical Mineralogy *	15	30	2
ETS 519	Gems in museums and personal collections *	15	-	1
ETS 520	Special Topics in Gemmology ³	30	D	2
<i>Special Courses for M.Sc. Programme in Industrial Minerals</i>				
ETS 524	Industrial Minerals and Constructional Materials	15		1
ETS 525	Mineral-based Industries of Sri Lanka (1 credit)	15		1
ETS 526	Industrial Minerals Field Course		F	1
ETS 527	Instrumental Analysis	30		2
ETS 528	Valuation of Mineral Deposits and Economics of Mining	15		1
ETS 529	Minerals and Bulk Materials Handling in Industry	15		1
ETS 530	Minerals Processing & Process technology	30	F	2
ETS 531	Problems relevant to Processing and Use of Industrial Minerals	15		1
ETS 532	Computer applications in mineral processing	15	D	1
ETS 533	Metallurgy	30		2
ETS 534	Thermodynamics of Mineral Formation and Mineral Processing*	15		1

ETS 535	Surface-chemical processing*	15		1
ETS 536	Solid/Liquid separation and fine particle processing*	15		1
<i>Common Courses for M.Sc. Programme in Gemmology/Industrial Minerals</i>				
ETS 597	Seminar			1
ETS 598	Field and Industrial Training		F	1
ETS 599	Research Project	(3 - 6 months)		6

¹ *Compulsory for Gemmology and Optional for Industrial Minerals*

² *Compulsory for Industrial Minerals and Optional for Gemmology*

³ *Special Topics to be offered by foreign experts will be notified to the students each year.*

F - Field excursion, D - Demonstration

** Optional courses*

4.15.13 GIS and Remote Sensing

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
Semester I				
ESR 501	Fundamentals of Geographic Information Systems (GIS)	30	30	3
ESR 502	Remote Sensing and Aerial Photography	30	30	3
ESR 503	Database Management Systems	10	10	1
ESR 504	GPS and its Applications	10	10	1
ESR 505	Fundamentals of Space Technology*	30	-	2
ESR 506	Advanced Technologies in GIS	30	30	3
Semester II				
ESR 507	Advanced Mapping Technology*	15	30	2
ESR 508	Digital Photogrammetry*	15	30	2
ESR 509	Spatial analysis and Modeling	15	30	2
ESR 510	Applications and Development of GIS and Remote Sensing	30	30	3
ESR 511	Digital Image Processing in Remote Sensing*	15	30	2
ESR 512	Geostatistics in GIS*	15	30	2
ESR 513	Application and Development of Web GIS*	10	10	1
ESR 514	Numerical Methods and Algorithms in RS and GIS*	20	20	2
ESR 597	Seminar on Applications of GIS and Remote Sensing	-	-	1
ESR 599	Research Project on RS and/or GIS Applications	6 months		6

** Optional Courses*

Students are required to obtain 7 credits from optional courses.

4.15.14 Industrial Chemistry

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Semester I				
CH 529	General Analytical Chemistry	15	-	1
CH 530	Analytical Spectroscopy	30	-	2
CH 531	Chemical Engineering ¹	15	-	1
CH 532	General Chemistry ²	15	-	1
CH 533	Catalysis and surface analysis	30	-	2
CH 534	Heat Exchangers, Unit operations in Chemical Engineering	45	-	3
CH 541	Pilot Plant Studies (Laboratory Course I) ¹	-	30	1
CH 545	Environmental Management Systems	15	-	1
Semester II				
CH546	Environmental Pollution Control	30	-	2
CH 547	Materials Science, R & D, New Product Development and Industrial Economics, Estimation of Physical Properties	45	-	3
CH 548	Quality Control	15	-	1
CH 549	Energy Management	15	-	1
CH 550	Industrial Hazards and Safety	15	-	1
CH 552	Optional Topics (3 courses 15 hrs each)	45	-	3
CH 556	Physical Chemistry Practicals ²	-	30	1
CH 596	Research Methodology and Scientific Writing	15	-	1
CH 597	Seminar			1
CH 599	Research Project (4 months)			6

¹ Only for those who have no Engineering background

² Only for those who have no Chemistry background

4.15.15 Industrial Mathematics

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Preliminary Courses ¹				
MT 401	Preliminaries in Mathematics	30	-	-
MT 402	Statistics	30	-	-
MT 403	Computer Applications	-	30	-
Semester I				
MT 501	Differential Equations	45	-	3
MT 502	Statistical Quality Control	30	-	2
MT 503	Numerical Analysis	45	-	3
MT 504	Stochastic Process and Applications*	30	-	2
MT 505	Operations Research	45	-	3

Semester II				
MT 516	Control Theory*	45	-	3
MT 517	Topics in Computer Science	45	-	3
MT 518	Optimization Theory*	30	-	2
MT 519	Special Topics in Industrial Mathematics*	30	-	2
MT 520	Theoretical Fluid Mechanics*	45	-	3
MT 597	Seminar	-	-	1
MT 599	Research Project	(3 - 6 months)		6

Preliminary courses are not considered in the computation of the GPA.

¹ Compulsory for those without sufficient background knowledge.

* Optional courses

Students are required to obtain 9 credits from optional courses.

4.15.16 Medical Microbiology

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Preliminary Courses				
PLS 402	Basic Statistics ¹	15	30	-
PLS 404	Scientific writing and presentation skills ²			-
Semester I				
<i>General</i>				
PLS 553	Independent Study*			1
PLS 556	General Microbiology	30	30	3
PLS 557	Laboratory management I	11	8	1
PLS 558	Recombinant DNA Technology	15	30	2
<i>Medical</i>				
PLS 566	Bacteriology I	20	50	3
PLS 567	Bacteriology II	23	44	3
Semester II				
<i>General</i>				
PLS 559	Applied Molecular Biology	15	30	2
<i>Medical</i>				
PLS 568	Virology	20	20	2
PLS 569	Mycology	10	40	2
PLS 570	Parasitology	15	30	2
PLS 571	Diagnostic Microbiology	15	60	3
PLS 572	Laboratory management II	15	-	1
<i>Research Project</i>				
PLS 599	Research Project			6

Preliminary courses are not considered in the computation of the GPA.

¹ Requires a minimum of a 'C' grade.

² General course offered by the PGIS.

* Optional course

4.15.17 Medical Physics

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Semester I				
PH 531	Human Biology and Cell Biology	30	-	2
PH 532	Physics of Diagnostic and Therapeutic Radiology	30	-	2
PH 533	Nuclear Medicine I	15	-	1
PH 534	Radiobiology	15	-	1
PH 535	Statistics	15	-	1
PH 537	Introduction to Digital Electronic and Microprocessors	15	-	1
PH 538	Applications of Physics in Medicine	15	-	1
PH 540	Clinical Instrumentation	15	-	1
PH 541	Laboratory Course	-	30	1
PH 536	Computing*	15	-	1
PH 555	Ultrasound in Medicine*	15	-	1
Semester II				
PH 546	Radiation Protection	30	-	2
PH 547	Radiotherapy Physics	30	-	2
PH 548	Medical Imaging Physics	30	-	2
PH 549	Radiotherapy and Medical Imaging Laboratory	-	60	2
PH 550	Nuclear Medicine II	15	30	2
PH 557	Clinical Tutorials and Demonstrations	-	30	1
PH 551	Medical Electronics and Instrumentation*	15	-	1
PH 552	Computer systems and method*	15	-	1
PH 553	Biomechanics, Biomaterials and Rehabilitation Engineering*	15	-	1
PH 554	Computer Architectures and Artificial Intelligence*	15	-	1
PH 556	Non-ionising E.M. Radiations in Medicine*	15	-	1
PH 558	Advanced techniques and special procedures in Radiotherapy*	15	-	1
PH 599	Research Project	(3 - 6 months)		6

* Optional courses

Students are required to obtain 2 credits from optional courses.

4.15.18 Nanoscience and Nanotechnology

Course Code	Course Title	Lecture hrs.	Practical hrs.	Credits
Semester I				
CHN 501	Introduction to Nanoscience and Nanotechnology	15	-	1
PHN 502	Basic Physics for Nanoscience and Nanotechnology	30	-	2

CHN 503	Nanochemistry	30	-	2
CHN 504	Characterization Techniques for Nanomaterials	15	-	1
CHN 505	Biochemistry related to Nanoscience and Nanotechnology	15	-	1
PHN 506	Carbon Nanotubes and Particles	15	-	1
CHN 507	Nanoscience and Nanotechnology Laboratory I	-	90	3
CHN 508	Nanoscience and Nanotechnology Laboratory II	-	60	2
CHN 597	Scientific Writing, Research Methodology and Seminar	15	-	1
Semester II				
PHN 516	Applications of Nanomaterials in Local Industries	30	-	2
PHN 517	Nanotechnology in Energy Conversion and Storage*	45	-	3
PHN 518	Nanoelectronic Devices*	30	-	2
CHN 519	Nanobiotechnology and Nanotechnology in Healthcare*	45	-	3
CHN 520	Business Enterprise, Economics and Research Policy in Nanotechnology*	30	-	2
CHN 521	Environmental Nanotechnology*	30	-	2
CHN 599	Research Project (3 - 6 months)			6

* *Optional courses*

Students are required to obtain 8 credits from optional courses.

4.15.19 *Physics of Materials*

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>Credits</i>
Semester I				
PH500	Mathematical Methods and Computational Methods	30		2
PH 501	Quantum Mechanics and Statistical Physics	30	-	2
PH 502	Electron Theory of Solids	30	-	2
PH 503	Structure and Properties of Solids, Phase equilibria	30	-	2
PH 504	Semiconductors	30	-	2
PH 505	Ceramics Materials	30	-	2
PH 506	Polymers	30	-	2
PH 507	Solid State Ionic Materials	30	-	2
PH 508	Advanced Laboratory work	-	45	1
Semester II				
PH 516	Materials Characterization Techniques	45	-	3
PH 517	Magnetic Materials and Superconducting Materials*	15	-	1
PH 518	Glass and Glass Ceramics*	15	-	1
PH 520	Semiconductors Device Technology *	15	-	1
PH 521	Industrial Ceramics *	15	-	1
PH 523	Nuclear Materials *	15	-	1

PH 525	Metals and Alloys*	15	-	1
PH 526	Introduction to nanotechnology*	15	-	1
PH 598	Industrial Training *	-	-	1
PH 599	Research Project (six months)	-	-	6

* *Optional Courses*

Students are required to select any four optional courses.

4.15.20 Plant Sciences

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
Preliminary Courses				
PLS 401	Bioinformatics	-	60	-
PLS 402	Basic Statistics ¹	10	15	-
PLS 403	Analytical Techniques and Bio-instrumentation	30	30	-
Semester 1				
PLS 501	Genetics and Molecular Biology	15	30	2
PLS 502	Sri Lankan Flora	15	30	2
PLS 503	Plant Systematics and Biogeography	15	30	2
PLS 504	Plant Ecology	15	30	2
PLS 505	Basic Microbiology	15	30	2
PLS 506	Advanced Plant Physiology and Biochemistry	15	30	2
Semester II				
Module 1				
PLS 516	Industrial Microbiology*	15	30	2
PLS 517	Plant Pathology*	15	30	2
PLS 519	Toxins of Plant and Microbial Origin and their effects*	15	30	2
PLS 520	Environmental Pollution and its Control*	15	30	2
PLS 521	Biodiversity Conservation and Management*	15	30	2
PLS 522	Advanced Systematics*	15	30	2
PLS 526	Remote Sensing and Geographic Information Systems*	15	30	2
PLS 533	Soil Fertility and Management*	15	30	2
Module II				
PLS 523	Ecotourism*	15	30	2
PLS 528	Landscape Horticulture*	15	30	2
PLS 529	Plant Tissue Culture and Embryogenesis*	15	30	2
PLS 530	Commercial Floriculture*	15	30	2
PLS 531	Commercial Nursery Management*	15	30	2
PLS 539	Processing of Plant Material and Quality Assurance*	15	30	2
PLS 540	Phytochemistry of Medicinal Plants*	15	30	2
Seminar and Research Project				
PLS 597	Seminar ⁺	-	-	1
PLS 598	Biostatistics ⁺²	15	30	2

PLS 599	Research Project ⁺	-	-	6
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¹ This is an equivalent course to SC 403 offered by the Board of Studies in Statistics and Computer Science. This course is only for those who have no background in basic statistics. Preliminary courses and the courses marked by (+) are not considered in the computation of the final GPA.

² Pre-requisite for the PLS 599

* Optional Courses

4.15.21 Postharvest Technology of Fruits and Vegetables

Course Code	Course Title	Lecture hrs.	Practical hrs.	No. of Credits
Semester I				
PL 501	Economical and social aspects of fruits and vegetables	15	30	2
PL 502	Pre-and postharvest physiology/biochemistry of fresh produce and ethylene in postharvest technology	15	30	2
PL 503	Postharvest losses of fruits and vegetables	15	30	2
PL 505	Postharvest handling and quality assurance of perishables	15	30	2
PL 516	Postharvest diseases and disorders and their control	15	30	2
PL 518	Insect pests in postharvest products and their cont	15	30	2
Semester II				
PL 504	Biostatistics ¹	15	30	-
PL 506	Packaging and Packing house operations	15	30	2
PL 507	Transportation, storage of fruits and vegetables	15	30	2
PL 517	Postharvest logistics for perishable crops	15	30	2
PL 519	Fruit and vegetable processing	15	30	2
PL 520	Texture of Fruits and vegetables	15	30	2
PL 521	Microflora and mycotoxins in fresh & processed produce	15	30	2
PL 522	Marketing management for postharvest operations	15	30	2
PL 523	Independent Study			1
PL 599	Research Project			6

¹ Non-credit course, but a minimum of a C grade is required.

4.15.22 Science Education

The programme of study consists of 225 lecture hours and 15 practical hours (15.5 credits) in the general component and 105 lecture hours (7 credits) and 45 practical hours (1.5 credits) in the special component. Credit value of the 3 - 6 month research project will not be considered in the computation of the GPA.

	Lecture hrs.	Practical hrs.	No. of Credits
General Component (Science Education)			
Coursework	225	15	15.5
Special Component (Biology/Chemistry/Mathematics/Physics Education)			
Coursework	105	45	8.5
Research project (3 months)			6.0

General Component - Science Education

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
SE 501	Science in the Past, Present and Future	15	-	1
SE 502	Science Teaching and Learning	45	-	3
SE 503	Qualitative Research Methods in Science Education ¹	45	-	3
SE 504	Quantitative Research Methods in Science Education ¹	30	-	2
SE 505	Science Curriculum*	30	-	2
SE 506	Science and Society*	30	-	2
SE 507	Science and Information Technology	15	15	1.5
SE 508	Measurement and Evaluation*	30	-	2
SE 509	Philosophical Foundations of Education*	15	-	1
SE 510	Psychological Foundations of Education*	15	-	1
SE 511	Educational Management*	15	-	1
SE 512	Action Research*	15	-	1
SE 513	Energy and Environment*	15	-	1
SE 514	School, university and industry relationships*	15	-	1

¹ One of the courses in Research Methodology (SE 503 or SE 504) is compulsory

* Optional courses

In addition to the compulsory courses each student must follow optional courses to meet the requirement of 15.5 credits.

Special Component

The students are expected to select **one** of the following special subjects:

(i) Biology Education, (ii) Chemistry Education, (iii) Mathematics Education or (iv) Physics Education.

All the special subjects have a theory component of 105 lecture hours (7 credits: compulsory 4 credits and optional 3 credits), a practical component of 45 practical hours (1.5 credits), a three month research project (6 credits).

Special Component - Biology Education

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
SE 516	Biology Education	30	-	2
SE 517	Methods of Teaching Biology	30	-	2
SE 518	Plants and Animals: Their evolution and Interactions*	15	15	1.5
SE 519	Environmental Science*	15	15	1.5
SE 520	Molecular Biology and its applications*	15	15	1.5
SE 521	Histology and Hormones in living organisms*	15	15	1.5
SE 522	Plant Systematics and Breeding*	15	15	1.5
SE 523	Microbiology and Plant Pathology*	15	15	1.5
SE 524	Food Science*	15	15	1.5
SE 525	Functioning Plant*	15	15	1.5

SE 599	Research Project			6.0
SE 597	The seminar based on the research project*			0.5

* *Optional Courses. Students are required to select any three optional courses from SE 518 - SE 525.*

Special Component - Chemistry Education

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
SE 531	Curriculum Development and Chemistry Education in Sri Lanka	15	-	1
SE 532	Problems of Chemistry Teaching in Schools and Possible remedial measures	15	-	1
SE 533	Methods of Teaching Chemistry I	15	-	1
SE 534	Methods of Teaching Chemistry II	15	-	1
SE 535	Some Important Theoretical Concepts and Special Topics Relevant to Chemistry Teaching I*	15	-	1
SE 536	Some Important Theoretical Concepts and Special Topics Relevant to Chemistry Teaching II*	15	-	1
SE 537	Relevance of Principles of Chemistry in Selected Chemical Industries*	15	-	1
SE 538	Chemistry and the Environment*	15	-	1
SE 539	Laboratory Work	-	45	1.5
SE 599	Research Project (3 months)			6

* *Optional Courses. Students are required to select any three optional courses from SE 535 - SE 538.*

Special Component - Mathematics Education

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
SE 546	Mathematics Education in Sri Lanka	15	-	1
SE 547	Methods of Teaching Mathematics	15	-	1
SE 548	Fundamental Concepts in Mathematics	15	-	1
SE 549	Laboratory & Field Work	-	45	1.5
SE 550	History of Mathematics	15	-	1
SE 551	Complex-variable Theory*	15	-	1
SE 552	Mathematical Modelling*	15	-	1
SE 553	Metric Spaces and their Applications*	15	-	1
SE 554	Linear Algebra*	15	-	1
SE 555	Measure Theory*	15	-	1
SE 556	Differential Equations*	15	-	1
SE 557	Computer Mathematics*	15	-	1
SE 558	Probability and Statistics*	15	-	1
SE 559	Numerical Methods*	15	-	1
SE 599	Research Project (3 months)			6

* *Optional courses. Students are required to select any three optional courses from SE 551 - SE559.*

Special Component - Physics Education

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture hrs.</i>	<i>Practical hrs.</i>	<i>No. of Credits</i>
SE 561	Physics Education I	30	-	2
SE 562	Physics Education II	15	-	1
SE 563	Important Concepts and Principles in Physics	15	-	1
SE 564	Energy and Environment*	15	-	1
SE 565	Physics of Materials*	15	-	1
SE 566	Astronomy*	15	-	1
SE 567	Electronics and communication*	15	-	1
SE 568	Topics in Applied Physics*	15	-	1
SE 569	Practicals in Physics	-	45	1.5
SE 599	Research Project (3 months)			6

* *Optional Courses. Students are required to select any three optional courses from SE 549 - SE 553.*

4.15.23 Water Resources Management

<i>Course Code</i>	<i>Course Title</i>	<i>Lecture Hrs.</i>	<i>Practical Hrs.</i>	<i>No. of Credits</i>
Semester I				
ESW 501	Introduction to Water Resources	20	20	2
ESW 502	Applied Environmental Hydrology	25	10	2
ESW 503	Groundwater Hydrology	25	10	2
ESW 504	Catchment Processes and Watershed Management	20	20	2
ESW 505	Geochemistry of Natural Water, Pollution and Water Quality Monitoring	25	10	2
ESW 506	Economics of Water	15	-	1
ESW 507	Fluid dynamics*	15	30	2
ESW 508	Water resources of Sri Lanka	15	-	1
ESW 509	Hydraulic Civilization of Sri Lanka*	15	-	1
ESW 510	Integrated Catchment Modeling*	15	30	2
Semester II				
ESW 511	Geo-Information Systems in Water Resources Management	15	30	2
ESW 512	Water and Irrigation*	25	10	2
ESW 514	Water and Wastewater Treatment	25	10	2
ESW 515	Application of Geophysics in Groundwater exploration*	15	30	2
ESW 516	Computer Applications in Hydrology and Hydrogeology*	15	30	2
ESW 517	Water Resources Planning and Evaluation, Water Law, Policy and Legislation	30	-	2
ESW 519	Wetlands*	15	-	1
ESW 520	Floods and Flood management*	15	-	1

ESW 597	Seminar			1
ESW 599	Research Project	(3 – 6 months)		6

* *Optional courses*

5.0 DEGREES OF MASTER OF PHILOSOPHY (M.Phil.) and DOCTOR OF PHILOSOPHY (Ph.D.)

The PGIS offers postgraduate research programmes leading to the award of Degree of Master of Philosophy (M.Phil.) and Degree of Doctor of Philosophy (Ph.D.), which involve course work and research in selected areas of study. The medium of instruction shall be English. A candidate may normally register for an M.Phil./Ph.D. Degree programme in a chosen field of study with the approval of the relevant Board of Study. Details of some ongoing research programmes and collaborative projects with local and overseas universities/institutions are given in Section 13.

5.1 General Information

5.1.1 Classification of Students

A student registering for a degree of Master of Philosophy or Doctor of Philosophy in the Postgraduate Institute of Science 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 with the concurrence of the relevant Board of Study.

Full-time and Part-time students

A **full-time** student shall be a person duly registered for an M.Phil./Ph.D. degree programme who is engaged in research or related activities during the entire normal working hours of the week. Therefore those who are employed are required to obtain leave of absence from their work places so as to be available for studies during normal working hours and be eligible for registration under this category.

A **part-time** student shall be a person duly registered for an M.Phil./Ph.D. degree programme who devotes only a pre-determined percentage of the total working hours of a week for his/her research work.

5.1.2 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 obtainable from the PGIS or downloaded from internet (<http://www.pgis.lk>). The application processing fee should be made at the time of submission of completed application form to the PGIS office. The acceptance of the application will be determined on the basis of the particulars disclosed. The relevant academic/professional qualifications possessed by the candidate should be supported by academic transcripts and authenticated copies of degree/diploma certificates. Applicants should arrange to have the official copy/copies of transcript/s sent directly to the Assistant Registrar of the PGIS. Originals of all certificates should be produced before admission as required by the PGIS. Two letters of recommendation, at least one of which should be from an academic referee, should be sent by the referees under confidential cover to the PGIS. Applicants are advised to submit certified photocopies of original certificates along with the application. The documents submitted in support of an application shall become the property of the PGIS. In the event of any discrepancy between the name/s appearing in an applicant's academic/professional/birth certificates and the name/s given by the applicant in the application form, an affidavit to the effect that the applicant is the one and the same person known by all such name/s or relevant certificates should be sent together with the application form. Duly completed application form should be forwarded to the Senior Assistant Registrar of the PGIS.

N.B. For admission requirements of M.Phil. and Ph.D. degrees see Sections 5.2 and 5.3 respectively.

5.1.3 Processing of Applications

The applications will be considered by the relevant Board of Study. Those which are incomplete or carrying false information, shall be rejected. The selection shall be based on academic merit. The applicants shall be informed of their acceptance/non-acceptance to the particular postgraduate programme for which admission was sought. The decision of the PGIS shall be final in the admission to any programme.

5.1.4 Registration Procedure

a. Date of Registration

A person who has been accepted as a postgraduate student shall be required to register to follow the particular postgraduate programme of study. A person who does not hold an M.Phil. degree should register for an M.Phil. degree at the first instance, and after a minimum of one-year duration, on the recommendation of the relevant Board of Study, the registration can be upgraded to a Ph.D. (see section 5.2.6). If an application for an M.Phil./Ph.D. degree is accepted by a Board of Study, the effective date of registration would be the date on which the duly completed application was received at the PGIS office or the date of commencement of research which ever comes later. Special cases may be considered on their merit by the PGIS.

b. Maintenance of Registration

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

c. Concurrent Registration

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

d. 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. In case of such withdrawals, adjustments of fees and refunds, will not be made.

e. 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.

f. Changes of Registration

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

g. 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.

h. 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 requirements of an M.Phil. degree within a maximum period of two years from the date of registration, (b) exceeding the maximum duration allowed for M.Phil. and Ph.D. programmes (six and eight years respectively), (c) non-payment of prescribed fees within the first six months of each year, (d) failure to submit two progress reports successively except during the period of writing the thesis, (e) non-adherence to rules and regulations of the PGIS and (f) unsatisfactory academic progress.

i. 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 of time 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, unless an exemption from payment of such fees during a period of leave is granted by the PGIS.

5.1.5 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.

5.1.6 Progress Review of Research Work

5.1.6.1 Progress Reports

Students should submit progress reports (in the prescribed form) for every six month period (*Deadlines: 1st January to 30th June: 15th July; 1st July to 31st December: 15th January of the following year*) except during the period of thesis writing. The reports should be forwarded through the Head of the Department/Institution with the approval of supervisor/s to the Chairman of the relevant Board of Study, who shall forward the same to the Director/PGIS with his/her recommendation. Non-submission of two successive progress reports could lead to the cancellation of registration of the candidate.

5.1.6.2 Annual Progress Review

Progress of students' research work will be reviewed annually by a progress review panel appointed by the relevant Board of Study.

Constitution of Progress Review Panel:

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

5.1.7 Examinations and Evaluation Procedures

On successful completion of the course requirements (specified in Sections 5.2.2 & 5.3.2) the performance of a student shall be assessed on the basis of a thesis and a seminar (if applicable) based on the research project and an oral examination. (See Section 6.0 for the format of the thesis)

- (i) The thesis shall be examined by two or more 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.
- (ii) The oral examination will be conducted by a Panel of Examiners appointed by the PGIS. The Panel of Examiners may accept the thesis, recommend corrections/amendments and/or further work, or recommend the award of the degree or reject the thesis. The corrections/amendments and/or further work as recommended shall be completed and the thesis shall be re-submitted in the revised form within a period of time as specified by the Panel of Examiners.
- (iii) The final results will be released by the Results Board subject to confirmation by the Board of Management of the PGIS and the Senate of the University of Peradeniya.

5.1.7.1 Initial Submission and Evaluation of Thesis

Three copies of the thesis in temporary binding should be submitted in the first instance by the candidate through supervisor/s and the Chairman 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 5.1.7.1A) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk. The Director will dispatch a copy of the thesis to each examiner as recommended by the relevant Board of Study in consultation with the supervisor/s for evaluation. The examiners will send the evaluation reports to the Director of the PGIS. If both reports are favourable the reports of examiners will then be sent to Chairman/Board of Study so that the candidate will be informed through the supervisor/s about any corrections and/or modifications, to be effected to the thesis that may be suggested by the examiners.

If one or both examiners suggest major revision/rejection of the thesis the Director shall send the reports to the relevant Board of Study to take appropriate action. In cases where there are major revisions of thesis, three copies of the **revised thesis** in temporary binding should be submitted by the candidate through supervisor/s and the Chairman of the relevant Board of Study to the Director, PGIS. The supervisor/s is/are expected to certify that all the corrections/revisions are being made to the thesis as required by the examiners by signing and forwarding the 'Resubmission Form' (Form 5.1.7.1B) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk.

5.1.7.2 Oral (Thesis Defense) Examination

If the thesis has been evaluated favourably by both examiners, the Director, PGIS will request the Chairman of the relevant Board of Study to call the candidate to a thesis defence examination. In cases where there are major revisions of thesis, oral examination will be held after the revised report is re-examined and evaluated by the examiner/s.

Constitution of Panel of Examiners:

1. Chairman of the relevant Board of Study (Chairman)
(Where 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
(Where 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 four copies of the thesis to the Director/PGIS as stipulated in Section 5.1.7.3.

5.1.7.3 Final Submission of Thesis

Four or more copies (*depending on the number of supervisors*) of the thesis (*in the permanently bound form*), with corrections/revisions if any, prepared according to the guidelines given in Section 5.0 should be submitted through the Supervisor and the Chairman of the relevant Board of Study to the Director, 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 effected by the candidate by duly signing the 'Final Submission Form' (Form 5.1.7.3A) available at the PGIS office or downloadable from the PGIS website: www.pgis.lk.

5.1.8 The Effective Date of the M.Phil./Ph.D. Degree

5.1.8.1 The effective date of the degree should be a date subsequent to the expiry of the minimum duration of a given programme.

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

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

- i. ***If the thesis is accepted without corrections*** and handed over in 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 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 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 submission of the thesis due to no fault of the candidate

- i. ***If thesis is accepted without corrections*** and handed over in 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 submission of the thesis.
- ii. ***If the thesis is accepted with minor corrections*** and submitted in 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 submission of the thesis.

5.1.8.1.2 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 corrections being made. The effective date shall be determined, after the evaluation of resubmitted thesis, according to 5.1.8.1.1 (a) or 5.1.8.1.1 (b).

5.1.8.2 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 5.1.8.1.1 (a) or 5.1.8.1.1 (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.Phil./Ph.D. degree).

5.1.8.3 In case the Panel of Examiners determined that the thesis submitted/oral examination is not of acceptable standard for the degree sought (M.Phil./Ph.D.) even after satisfying the conditions 5.1.8.1 or 5.1.8.2 (above), but is of acceptable standard for **a lesser qualification** specified by the Panel of Examiners, then the effective date will be determined as applicable to the recommended lesser qualification.

5.1.9 *Release of Results*

The PGIS will call a meeting of the Results Board to consider the award of the 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.

Constitution of Results Board

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

5.1.10 *Transcript*

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

5.2 *Degree of Master of Philosophy (M.Phil.)*

5.2.1 *Admission Requirements*

The minimum requirements for registration are:

- A (i) an M.Sc. degree from a recognised university/institution in the relevant area of study
or
(ii) a transfer from an M.Sc. programme conducted by the PGIS as stated under Section 4.13
or
(iii) a B.Sc. Special Degree from a recognised university/institution in the relevant area of study
or
(iv) a B.Sc. General Degree from a recognised university/institution with subject/s relevant to the area of study
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 *Course Requirements for the M.Phil. Degree*

All M.Phil. candidates should meet the following requirements:

- I He/She should engage in full-time research **for a minimum period of two years**, 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.
- II (a) He/She should successfully earn a minimum of **four credits of course work at postgraduate level** as recommended and arranged by the respective Board of Study. In addition, Boards of Study may recommend supplementary courses of B.Sc. special degree level to certain categories of candidates.
or
(b) He/She should successfully complete an independent/directed study that would be equivalent to credits stated in II (a) above assigned to him/her by the relevant Board of Study and pass the relevant examination.
- III He/She should attain a minimum standard in scientific writing acceptable to the PGIS. The relevant courses will be conducted by the PGIS from time to time.

The requirements mentioned under II & III 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 II and III above as recommended by the relevant Board of Study. In order to follow the above mentioned courses or independent/directed study, the M.Phil. students are required to produce the duly completed 'Coursework Requirement Form' (Form 5.2.2.IIA) and the student ID card of the PGIS to the lecturer in-charge of the particular course/study. The Form 5.2.2.IIB should be completed and submitted to certify the completion of requirements mentioned under 5.2.2.II a/b above. Both Forms 5.2.2.IIA and 5.2.2.II B are available at the PGIS office or downloadable from the PGIS website: www.pgis.lk.

5.2.3 Duration

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) - two years and nine months including the time spent for the M.Sc. programme or as specified by the PGIS.
- (iii) part-time candidates - 1½ times the period specified under (i) & (ii) above.

The maximum duration for the M.Phil. Degree would be six years for full-time students and eight years for part-time students from the date of registration. Exceptional cases may be considered by the PGIS.

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.

5.2.4 Award of the Degree

The M.Phil. degree may be awarded to a candidate who has:

- (i) fulfilled the admission requirements as set out in Section 5.2.1
- and**
- (ii) been accepted by the PGIS as a candidate for the M.Phil. Degree
- and**
- (iii) been duly registered and paid fees for the prescribed duration of the programme
- and**
- (iv) successfully completed the requirements given under Sections 5.1.7 and 5.2.2 subject to the condition given under Section 5.2.3.

5.2.5 Academic Dress

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.

5.2.6 Transfer to the Ph.D. Programme

A student who has been registered for an *M.Phil. degree programme* and who has made exceptional 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 that of a *Ph.D. degree programme* under the rules governing that programme. A student may apply for such a transfer only after completion of at least one year of the M.Phil. programme.

5.3 *Degree of Doctor of Philosophy (Ph.D.)*

5.3.1 *Admission Requirements*

The minimum requirements for registration are:

- A (i) a transfer from an M.Phil. programme conducted by the PGIS on the recommendation of the relevant Board of Study
or
(ii) a Masters Degree in the relevant field obtained after a full-time research component of at least two years duration
or
(iii) any other equivalent qualifications acceptable to the PGIS
and
B any other requirement/s as stipulated by the relevant Board of Study.

5.3.2 *Course Requirements for the Ph.D. Degree*

All Ph.D. candidates should meet the following requirements:

I He/She should engage in full-time research for a **minimum period of three years**, 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. Some candidates may have to take courses as decided by the PGIS.

II He/ She should satisfy the requirements given under II and III of Section 5.2.2.

5.3.3 *Duration*

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 - three years and nine months
(iv) part-time candidates - 1½ times the period specified under (i), (ii) or (iii) above.

The maximum duration for any candidate would be eight years for full-time students and ten years for part-time students from the date of registration. Exceptional cases may be considered by the PGIS.

On the written application of a 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.

5.3.4 *Award of the Degree*

The Ph.D. degree may be awarded to a candidate who has:

- (i) fulfilled the admission requirements as set out in Section 5.3.1. **and**
- (ii) been accepted by the PGIS as a candidate for the Ph.D degree **and**
- (iii) been duly registered and paid fees for the prescribed duration of the programme **and**
- (iv) successfully completed all the requirements given under Sections 5.1.7 and 5.3.2. subject to the condition given under Section 5.3.3.

5.3.5 *Academic Dress*

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.

5.4 Fees

(N.B. The fees given below may be revised from time to time by the Board of Management of the PGIS.)

All relevant fees should be paid at registration. Candidates are required to pay the relevant fees at first registration only for the remaining quarter(s) of the year (from the date of registration up to 31st December) on a quarterly basis. Subsequently, in order to renew the registration and maintain student status, the relevant fee/s should be paid on or before 1st January of each year. Candidates completing the programme during the course of the year are required to pay only for the relevant quarter(s) of that year on a quarterly basis.

	Fee Category	Local candidates SL Rs.	Foreign candidates	
			SAARC Countries US\$	Other Countries US\$
5.4.1	Application processing fee ¹	2000	200	400
5.4.2	Registration fee (per year) ²	5000	500	1000
5.4.4	Tuition fee (per year) ^{3,4}	4500	450	900
5.4.5	Bench fee - minimum (per year) ⁴	7500	750	1500
5.4.6	Supervision fee ⁵			
	M.Phil.	15000	1500	3000
	Ph.D.	30000	3000	6000
5.4.7	Medical fee (per year)	100	10	20
5.4.8	Lending library fee (maximum of 2 tickets), refundable	2000	200	400
5.4.9	Standard library fee (reference service), non-refundable	3000	300	600
5.4.10	Science deposit (per programme), refundable	3000	300	600
5.4.11	Additional course fee for courses outside the 4-credit course requirement (per credit)	1500	150	300
5.4.12	Examination fee ⁶			
	M.Phil.	50000	5000	10000
	Ph.D.	70000	7000	14000
5.4.13	Transcript fee: Local	150	15	30
	Foreign	500	50	100
5.4.14	Provisional certificate fee	150	15	30

¹ Payment of application processing fee should accompany the completed application form when it is submitted to the PGIS office. Application documents can be obtained from the PGIS office or downloaded from the Internet (<http://www.pgis.lk>).

² An additional late registration fee (10% per month) will be charged if registration for the due calendar year is not renewed before 31st January of that calendar year.

³ Tuition fee will cover the cost of (a) the 4-credit course requirement recommended by the relevant Board of Study and (b) the annual progress review of the candidate. When this requirement includes a 3-credit course, the tuition fee will cover the fee for a maximum of 2 courses only.

⁴ Those who have completed the coursework requirement and laboratory work (and have commenced writing up the thesis) are exempted from payment of Tuition and Bench fees. The exemption should be requested in writing from the Director of the PGIS by the candidate through his/her supervisor/s and the Chairman of the relevant Board of Study.

⁵ Supervision fee shall be paid for a period of 2 years for an M.Phil. degree and 3 years for a Ph.D. degree.

⁶ Examination fee may be paid at the time of submission of the thesis. If the student is requested to resubmit the thesis after major revisions, a repeat examination fee of Rs. 3000/- (M.Phil. degree) or Rs. 5000/- (Ph.D. degree) will be charged at the time of submission of the revised thesis.

6.0 FORMAT OF THE PROJECT REPORT/THESIS - M.Sc., M.Phil. AND Ph.D. DEGREES

Supplementary Document for M.Sc. Project Report Writing

The project report/thesis shall consist of the candidate's own account of his/her research. It must form a distinct contribution to knowledge and provide evidence of originality shown by the exercise of independent critical power and/or by the discovery of new facts. It must be satisfactory as regards literary presentation.

A candidate shall not submit a project report/thesis or part thereof, on which a degree has been already conferred upon him/her by the University of Peradeniya or any other university/institution. A candidate may incorporate into project report/thesis any of his/her published work, which has not already been embodied in an earlier report by him/her for the conferment of a degree.

6.1 Paper and Printing

Each copy shall be on clear white paper of good quality having at least **80 GSM and A4 size (210 x 297 mm)**. One type of paper must be used throughout the project report/thesis. However, papers of different quality and size may be used for figures, maps, etc. Each copy shall be computer printed. One font (preferably Times New Roman - size 12) must be used throughout the project report/thesis. The use of bold type headings and italics for emphasis is permitted. All typing should be on one side of the paper only, 1.5 spaced, with the left hand margin not less than 40 mm, right hand margin not less than 15 mm and top and bottom margins not less than 25 mm. Photocopies should be clearly legible.

6.2 Illustrations

Drawings, diagrams, maps etc. should be clear and may be reproduced by photographic or other processes. They should carry captions on the same page.

6.3 Number of Pages

The total number of pages in an M.Sc. project report should not exceed 150 pages.

6.4 General Format

In the first instance the temporarily bound project report (two copies)/thesis (three copies) should be submitted for evaluation. Four or more copies of final corrected version of the project report/thesis should be submitted in properly bound form (refer Sections **4.7.2 and 5.1.7**).

The general format of the project report/thesis shall be as follows:

(i) *The Title*

The title shall be the title approved by the relevant Board of Study of the PGIS. It should be informative and descriptive of the work done. As shown in the Section 6.8.3, year of effective date of award of degree should appear at the bottom of the title page.

- (ii) *Declaration*
Each project report/thesis should carry a declaration as specified in Section 6.8.6.
- (iii) *Abstract*
This shall consist of the title of the project report/thesis, name and address of the author and a summary not exceeding 350 words as given in Section 6.8.7.
- (iv) *Acknowledgments*
The candidate shall declare in the thesis the extent to which assistance has been obtained from others in the collection of material, design and construction of apparatus, performance of experiments, preparation of the thesis, financial support etc.
- (v) *Table of Contents*
- (vi) *List of Tables*
- (vii) *List of Figures*
- (viii) *List of Abbreviations*
- (ix) *Main Body of the Text*
This shall include introduction, survey of prior research, objectives of the study, research design, results, analysis, discussion and conclusions. References should be cited in the text either by author and year or numbered. Notes may be placed at the foot of each page or in a group at the end of each chapter. Standard International units should be used. Unit symbols should be written after the numerical value, leaving a space between, e.g., 5 m.
Formulae: Formulae should be printed. Leave ample space around the formulae. Subscripts and superscripts should be clear and not too small. Give the meaning of all symbols immediately after the equation in which they are first used. For simple fractions use the solidus (/) instead of a horizontal line. Equations should be numbered serially at the right-hand side in parentheses. Use of fractional powers instead of root signs is recommended. Also powers of e are often more conveniently denoted by exp. Levels of statistical significance which can be mentioned without further explanation are *p<0.05, **P<0.001 and ***P<0.001. In chemical formulae, valence of ions should be given as, e.g. Ca²⁺ and CO₃²⁻, not as Ca⁺⁺ or CO₃⁻⁻. The repeated writing of chemical formulae in the text is to be avoided; instead, the name of the compound should be given in full. Exceptions may be made in the case of very long names occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination.
Scientific Names: Scientific names of species should be in italics, e.g. *Stemonoporus canaliculatus* Thw. (Dipterocarpaceae), *Elettaria cardamom* var. *major* Thw. and *Shorea disticha* (Thw.) Ashton.
- (x) *List of References*
The references in the text may either be listed at the end of the thesis or at the end of each chapter. The references can be in the numeric system or author-year system. However, one system should be used throughout the thesis. The format to be used is given in Section 6.9.
- (xi) *Appendices*
Any detailed description, recipe or set of data could be included under an Appendix.

6.5 *Numbering of Pages*

Each page in a thesis should be numbered in consecutive order. This includes illustrative material as well as text.

For the prefatory pages (title page to list of abbreviations) small Roman numerals should be used and placed 10 mm below the midpoint of the top edge of the page. All pages of the main body of the thesis, beginning with the introduction or Chapter 1 up to the last page of the thesis should be numbered with arabic numerals.

The first page of each major section (e.g. the first page of chapter) should be numbered 10 mm above the midpoint of the bottom edge of the page. All other pages must be numbered in the upper right hand corner of the page 10 mm from the top and right edges.

6.6 *Tables and Figures*

Tables and Figures should be numbered with Arabic numerals according to chapter number with decimals. e.g. the third figure in Chapter 1 should be numbered as Fig. 1.3 or Table 1.3. Title of a table should be clear and meaningful, and should be placed at the top of the table. Only relevant data should be presented in any tables included in the project report/thesis. If there are masses of data which take up three to four pages or more, they should be placed in an Appendix and not in the main body of the text.

The figure caption should be at the bottom of maps, line drawings, photographs and graphs. Every map should bear: the coordinates, a linear scale, the directive arrow, and index map showing locality of area dealt with. Line drawings should contain only essential information and should illustrate some points in the text. Graphs may be line graphs or bar graphs and the choice of which is to be used at any time depends on the data to be presented. Only good-quality photographs should be included and only if they are useful in illustrating something in the text. All maps should include a scale.

The table titles and figure captions should be of the same font-style as in text but of smaller size (preferably Times New Roman and size 10) and single spaced if there are more than one line.

6.7 *Specified Colours and Binding*

Each copy of the project report/thesis should be bound with cloth, rexin or material of equivalent quality. The cover should be in the colour specified for the particular degree with gold lettering as given below:

<i>Diploma</i>	<i>Brown</i>
<i>M.Sc.</i>	<i>Maroon</i>
<i>M.Phil.</i>	<i>Green</i>
<i>Ph.D.</i>	<i>Blue</i>
<i>D.Sc.</i>	<i>Black</i>

As shown in Section 6.8.1, the cover should carry the full title of the project report/thesis, name of candidate, degree sought and year of effective date of award of degree. The spine (see Section 6.8.2) shall also carry the title, name of candidate, degree sought and year of effective date of award of degree. If the approved title is too long, the approved short title should be printed on the spine.

6.8 *Specimen Pages*

Boxes given in the specimen pages represent A4-size pages or spine of the project report/thesis, but not to scale. The font to be used is specified at the right hand side margin of the pages.

6.8.1 *Specimen Cover Page*

↙ *This box should not appear on the cover page*

**PREPARATION AND CHARACTERIZATION OF FERRITE
NANOPARTICLES**

(Times New Roman, size 14)

SAMPATH KUMARA RANASINGHE

(Times New Roman, size 12)

M.Sc./M.Phil./Ph.D.

2012

(Times New Roman, size 14)

6.8.2 *Specimen Spine*

This box should not appear on the spine

S. K. RANASINGHE PREPARATION AND CHARACTERIZATION OF FERRITE NANOPARTICLES M.Sc. 2012

(Times New Roman, size 10)

(Times New Roman, size 14)

**DEVELOPMENT OF A STUDENT INFORMATION
MANAGEMENT SYSTEM FOR SCHOOLS**

(Times New Roman, size 12)

A PROJECT REPORT PRESENTED BY

MEGANATHAN INTHIRAPALAH

to the Board of Study in Statistics and Computer Science of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN COMPUTER SCIENCE

of the

**UNIVERSITY OF PERADENIYA
SRI LANKA**

2012

(Times New Roman, size 12)

(Times New Roman, size 14)

**EFFECTIVE CONTROL OF DENGUE FEVER VECTORS:
Aedes Aegypti and *Ae. Albopictus* IN SRI LANKA**

A THESIS PRESENTED BY

(Times New Roman, size 12)

THILINI CHATHURIKA WEERARATNE

to the Board of Study in Zoological Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF PHILOSOPHY

of the

**UNIVERSITY OF PERADENIYA
SRI LANKA**

2012

(Times New Roman, size 12)

(Times New Roman, size 14)

**CHARACTERIZATION AND NUTRITIONAL EFFECT OF CELL
WALL POLYSACCHARIDES FROM COCONUT KERNEL**

A THESIS PRESENTED BY

(Times New Roman, size 12)

CHANDI YALEGAMA

to the Board of Study in Chemical Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

DOCTOR OF PHILOSOPHY

of the

UNIVERSITY OF PERADENIYA

SRI LANKA

2012

(Times New Roman, size 12)

6.8.6 Specimen Declaration Page

To be included only at the final submission of the properly bound project report/thesis.

This box should not appear

DECLARATION

(Times New Roman, size 14)

I do hereby declare that the work reported in this project report/thesis was exclusively carried out by me under the supervision of It describes the results of my own independent research except where due reference has been made in the text. No part of this project report/thesis has been submitted earlier or concurrently for the same or any other degree.

(Times New Roman, size 12)

Date:

Signature of the Candidate

(Times New Roman, size 11)

Certified by:

1. Supervisor (Name):..... Date:

(Signature):

2. Supervisor (Name):..... Date:

(Signature):

(Times New Roman, size 14)

PGIS Stamp:

This box should not appear

~~**POLYPYRROLE BASED CONDUCTING POLYMERS
AND THEIR ELECTROCHEMOMECHANICAL
PROPERTIES**~~

(Times New Roman, size 14)

**Please follow the guidelines specified in the
Supplementary Document for the Abstract**

Download: [Supplementary Document for M.Sc. Project Report Writing](#)

~~The influence of preparation conditions on the properties of electroactive poly-N-methylpyrrole (PNMP) films were investigated by varying preparation conditions with a view of obtaining highly conductive films. Characterizations were done using cyclic voltammetry and impedance spectroscopy. Conductivity of PNMP films was very much affected by the polymerization current density, pH and the polymerization temperature. Electrochemical Quartz Crystal Microbalance (EQCM) studies revealed that anions are the moving species during the redox process in PNMP films that were prepared and cycled in aqueous electrolytes containing small anions.~~

~~Polypyrrole (PPy) films were prepared with large surfactant anion, dodecylbenzenesulfonate (DBS⁻), and their properties were compared with those of PPy films prepared with small anions. EQCM studies on PPy/DBS films showed a dual step scheme for the redox process in aqueous electrolytes. Lithium rechargeable cells were fabricated using PPy/DBS as the cathode. Continuous charge discharge experiments showed that these cells could be cycled more than 1000 times without any appreciable charge decay.~~

~~Electrochemomechanical properties of PPy/DBS films were investigated by fabricating bi-layer and dry artificial muscles and obtaining the force exerted by these muscles. The highest force change is always associated with the main peaks of the cyclic voltammogram. It has been observed that appreciable force change occurred in a rather narrow voltage interval. Muscles fabricated with PPy films prepared using larger anions and higher polymerization current densities gave higher forces. Higher forces can also be obtained by limiting the cycling potential window so that only cation exchange occurs.~~

6.9 References/Bibliography Format

In the project report/thesis, references may take either of the two following forms:

- Numeric System
- Author -Year System

6.9.1 Numeric System

In the Numeric System citation numbers may be introduced into a text within brackets or as superscripts. e.g.:

text[1]..... text[2]....., text[2,3], text[1,3-6]...
text¹ text², text^{2,3}, text^{1,3-6}

Use of this system does not preclude also mentioning an author's name;
e.g. The results reported by Hart³ are.....

In the Numeric System references are listed in the order they appear in the text.
e.g.

- (1) Nakamishi, T., Ito, K., *Sol. Energy. Mat.* **1994**, 35, 171-6.
- (2) Williams, F. Electronic Document Delivery – a trial in an academic library. *Ariadne* issue 10, 15 July 1997. <http://www.ariadne.ac.uk/issue10/edd/> (5 December 1997)
- (3) Hart, T.W., *J. Chem. Soc. Chem. Commun.* **1979**, 156-9.
- (4) Haggin, I., *Chem. Eng. News* **1985**, 63 (42), 23-25.
- (5) ...

Recommended Format for Numeric System

- Journal article:
Nakamishi, T., Ito, K., *Sol. Energy. Mat.* **1994**, 35, 171-6.
- Journal article (electronic):
Williams, F. Electronic Document Delivery – a trial in an academic library. *Ariadne* issue 10, 15 July 1997. <http://www.ariadne.ac.uk/issue10/edd/> (5 December 1997)
- Journal without volume numbers:
Hart, T.W., *J. Chem. Soc. Chem. Commun.* **1979**, 156-9.
- Journal with new pagination in each issue:
Haggin, I., *Chem. Eng. News* **1985**, 63 (42), 23-25.
- Translation journal:
Volpin, M.E., *J. Gen. Chem. USSR (Engl. Transl.)* **1960**, 30 1207; *Zh. Obshch. Khim.* **1960**, 30, 1187. (translation journal data followed by original journal data)
- Reference to abstract of an article:
Mirnov, V.F., *Izv. Akad. Nauk SSSR* **1966**, 1177; *Chem. Abstr.* **1966**, 65, 16997.

- Paper not yet published:
Ariyaratne, K.A.N.S., *J. Natl. Sci. Coun. Sri Lanka*, in press.
- Monograph:
Soo, S.L., *Fluid dynamics of Multiphase systems*. New York: Blaisdell, 1967.
- Chapter in a monograph:
Ugi, I., *Isonitrile chemistry*, New York: Academic press, 1971; Chapter 2.
- Book:
Smith, J.D., Crawford, F., *Hormonal Mediators in Bees*. Greenvillage: The New Science Press, 1985.
- Edited Book:
Cleerfield, A. (Ed.) *Inorganic Ion Exchange Materials*. Boca Raton: CRC Press, 1982.
- Chapter in an edited book:
Stoeppler, M. and Nireuberg, W., in: *Metalle in der umwelt*; Merian, E. (Ed.)
Wlinheim: Verlag Chemie, 1984; Chapter I, 4a.
- Abstract of a conference paper:
Dissanayake, M.A.K.L., *Abstracts of papers*, 51st Meeting of the Sri Lanka Association for the Advancement of Science, Colombo, Sri Lanka, 1986, 513.
- Patent:
Maldonado, P., Nougier, R., *U.S. Patent*. 197205, 1983.
- Thesis:
Bandara, J.M.S., M.Phil. Thesis, University of Peradeniya, 1992.
- Thesis (website):
Smith, J., *Curly's Airships Polegate*, Masters of Arts 2000 Available from:
<http://www.curlyairships.com> (Accessed 29 May 2001).

6.9.2 Author-Year System

The Author-Year System is preferred by scientists and editors, particularly in medicine and biosciences. In this system, reference numbers are totally avoided. Instead the name of the first author of the publication (or the names of the first and second authors if there are only two) appears together with the publication *year* of the document.

References should be arranged first alphabetically under author/s name/s and then in chronological order if several papers by the same author/s are cited. Use *a,b, etc.* after the year to distinguish papers published by the same author/s in the same year.

The *text*: The surnames/s of author/s should be followed by the year, to which may be added *a,b, etc.* to distinguish papers published by the same author/s in the same year. (I) *Two authors*: use both names and the year. Do not use *et al.* (ii) *Three authors*: on first citation use all authors' names and the year. Thereafter it is usually sufficient to give the name of the first author followed by *et al.* and the year. (iii) *More than three authors*: on first citation and thereafter give the name of the first author followed by *et al.* and the year.

The following examples illustrate how Author-year citations can be incorporated into a running text.

Young (1981) and also Peterson (1983) report Recent studies (Silva and Perera, 1996) have shown... that the actual value is higher (Senaratne *et al.*, 1995).

Recommended Format for Author-Year System

- Journal article:
 - (i) Bell, C.H. (1991). Diapause and cold tolerance of larvae of *Ephestia elutella*. *Postharvest Biology and Technology* **1**, 81-93.
 - (ii) Priesler, H.K. and Robertson, J.L. (1992). Estimation of treatment efficacy when the number of test subjects is unknown. *Journal of Economic Entomology* **85**,1033-1040.
 - (iii) Waite, D.T., Grover, R., Westcott, N.D., Sommerstd, H. and Kerr, L. (1992). Pesticides in ground water, surface water and spring runoff in a small Saskatchewan watershed. *Environmental Toxicology and Chemistry* **11**, 741-748.
- Journal article (electronic):

Williams, F. (1997). Electronic Document Delivery – a trial in an academic library. Ariadne issue 10, July 15. <http://www.ariadne.ac.uk/issue10/edd/> (December 5 1997)
- Journal without volume numbers:

Jang, E.B. (1991). Thermal death kinetics and heat tolerance in early and late third instars of the oriental fruit fly (*Diptera: Tephritidae*). *Journal of Economic Entomology*, 1298-1303.
- Journal with new pagination in each issue:

Becker, L.J. and Seligman, C. (1981). Welcome to the energy crisis. *J. Social Issue* **37** (2), 1-7.
- Translation journal:

Assink, E.M.H. and Verloop, N. (1977). Het aanleren van dee-geheel relaties in het aanvankelijk rekenonderwijs [Teaching part-whole relations in elementary mathematics instruction]. *Pedagogische Studien* **54**,130-142.
- Reference to abstract of an article:

Karunaratne, W.M.A.A. and Dissanayake, C.B., 1983.The distribution of goldmines and mining villages in ancient Sri Lanka. Abs. *First Geology Symposium of Sri Lanka*: University of Peradeniya.
- Paper not yet published:

Potting, R.P.J., Otten, H. and Vet, L.E.M. (1997). The relation between parasitoid ecology and learning: absence of learning in the stemborer parasitoid *Cotesia flavipes*. *Animal Behaviour* (in press).

- Monograph:
Gunatilleke, C.V.S. (1996). *A nature guide to the world's end trail, Horton Plains*. Peradeniya Science Publication 5.
- Chapter in monograph:
Ugi, I. (1971). *Isonitrile chemistry*, New York, Academic press; Chapter 2.
- Book:
Abeles, F.B. (1973). *Ethylene in Plant Biology*. Academic Press, New York.
- Edited Book:
Worthing, C.R. and Walker, S.B. (1987). *The Pesticide Manual*, 8th edn. British Crop Protection Council, Thornton Heath.
- Chapter in edited book:
Ries, S.K. (1976). Subtoxic effects on plants. In *Herbicides: Physiology, Biochemistry, Ecology*, 2nd edn. Vol. 2, ed. L.J. Audus. Academic Press Inc. (London) Ltd, Chapter 2, 313-344.
- Edited symposia, special issues, etc., published in a periodical:
Kimball, B.A. and Idso, S.B.(1983). Increasing atmospheric Carbon Dioxide: effects on crop yield, water use and climate. In: J.F. Stone and W.O. Willis (Editors), Symp. Plant Production and Management under Drought Conditions, 4-16 October 1982, Tulsa, OK. *Agric. Water Manage.* **7**, 55-72.
- Patent:
Kysika, J.O., Sawiciki, C.A., Apparatus and method for measuring optically active materials, U.S. Patent 352 321, 1983.
- Thesis:
Cregg, B.M. (1990). Net Photosynthesis and carbon allocation of loblolly pine (*Pinus taeda L.*) branches in relation to three levels of shade. Ph.D. thesis, University of Georgia, USA.
- Thesis (website):
Smith, J. (2000) *Curly's Airships Polegate*, Masters of Arts Available from: <http://www.curlyairships.com> (Accessed 29 May 2001).

7.0 OCCASIONAL STUDENTS

7.1 *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 qualification from a recognized university or
- (b) Any other qualification acceptable to the PGIS

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 currently running 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

7.2 *Fees*

Fee	Local Candidates (SL Rs.)	Foreign Candidates (US\$)	
		SAARC Countries*	Other Countries
(a) Registration Fee (to be renewed yearly)	2000	200	400
(b) Course Fee (per credit unit)	2500	250	500
(c) Fee for Computer & Internet use (per year)**	3600	360	720
(d) i) Bench Fee / Base Fee (per year)**	3000	300	600
ii) Field work / Research (per year)**	2000	200	400
(e) i) Lending library fee (maximum of 2 tickets), refundable	2000	200	400
ii) Standard library fee (reference service), non-refundable	1500	150	300

(N.B. The fees given below may be revised from time to time by the Board of Management of the PGIS.)

* *Fees for candidates from SAARC countries and those covered by a Memorandum of Understanding (MOU) or a Link Programme between foreign universities/institutes and the PGIS/University of Peradeniya*

** *or payable on pro-rata basis, as a quarterly payment*

Local students with local grants, self-sponsored local students and Sri Lankan students registered in foreign universities but receive no foreign grants, are eligible to pay at local rates. Local students sponsored by foreign grants will be charged foreign rates. Occasional student should pay the registration fee listed under (a) **AND** all the other relevant fees out of (b), (c), (d) and (e).

If any expensive equipment, chemicals are used, the students will be required to make a payment to meet those expenses in addition to the above fee. The amounts are to be decided by the PGIS in consultation with the Chairman of the relevant Board of Study, supervisor of the student and the Head of the Department or Institution concerned.

A refundable laboratory deposit will be charged from those who will be engaged in laboratory work.

8.0 DEGREE OF DOCTOR OF SCIENCE (D.Sc.)

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.

8.1 *Application Procedure*

Every application for a 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 form 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.

8.2 *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.

8.3 Fees

Registration	Rs. 20,000.00
	US\$ 250.00 (for non-residents)
Evaluation	US\$ 2,000.00

In addition candidates are required to pay postage depending on the actual cost.

8.4 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 Chairmen 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.

8.5 Effective Date

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

8.6 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.

9.0 OTHER ACTIVITIES OF THE PGIS

9.1 Short Courses/Training Programmes/Workshops

The PGIS routinely conducts conferences, short courses, in-service training programmes, workshops, seminars, postgraduate certificate courses, etc. of national and global importance. In particular, the Institute conducts tailor-made training programmes depending on the demand.

9.2 Scientific Consultancy Services

The PGIS also offers scientific consultancy services in various disciplines of science to the local industry and public/private sector institutions. A special application form is available in the PGIS office for this purpose.

10.0 PAYMENT OF FEES

All payments should be made by:

- § Money Order drawn in favour of the **Postgraduate Institute of Science** payable at the Peradeniya Post Office or
- § Cash **at the PGIS office** or
- § Cash to the credit of the **Postgraduate Institute of Science, A/C 057100161338035 at the People's Bank, Peradeniya** using the paying-in-voucher prepared by the Institute for this purpose.

Payments in foreign currency should be made via bank transfer in U.S. dollars to:

- § **the Bank of Ceylon, Peradeniya, Sri Lanka (Branch Code – 588)** to the credit of the Postgraduate Institute of Science (**A/C 2233593, Swift Code - BCEYLKLX**). Student full name and student ID number must accompany wire transfer information. The payment details (student 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.

11.0 FACILITIES AVAILABLE

11.1 Laboratory Facilities

The PGIS is located in its own 3-storey building in the Peradeniya campus. The building has facilities for a computer unit, laboratories, lecture halls, a reading room, common room, etc.

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.

11.2 Computer Facilities

The computer laboratory 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.

11.3 Library Facilities

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.

11.4 Recreation Facilities

Facilities for athletics, cricket, hockey, rugger, 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.

11.5 Healthcare Facilities

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.

12.0 PANELS OF RESOURCE PERSONS OF BOARDS OF STUDY

Resource persons of the Boards of Study of the PGIS are academics/scientists drawn from Sri Lankan universities, research institutes, industry, etc. Based on the need of the postgraduate programmes, provision for appointment as Visiting Professor is also available for eminent scientists from Sri Lanka and abroad.

12.1 Board of Study in Biochemistry and Molecular Biology

- Adikari, S. B., *M.B.B.S. (Peradeniya), Ph.D. (Karolinska)*
- Alexander, P. A. B. D., *B.V.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Guelph)*
- Arulkanthan, A., *B.V.Sc. (Peradeniya), M.Sc. (WSU)*
- Bandara, B. M. R., *B.Sc. (Sri Lanka), Ph.D. (ANU)*
- Bandara, N. C., *B.Sc. (Peradeniya), M.Sc. (New Orleans), Ph.D. (New Orleans)*
- Chandrasekera, M. S., *B.D.S. (Ceylon), Ph.D. (New Castle)*
- Daundasekera, W. B., *B.Sc. (Peradeniya), M.A. (Alabama), Ph.D. (Alabama)*
- Dhanapala, M. P. C. S., *B.Sc. (Peradeniya), M.Sc. (Saga)*
- Fernando, K., *B.Sc. (Peradeniya), M.Sc. (Calif.), Ph.D. (Bath)*
- Fernando, P. H. P., *B.V.Sc. (Peradeniya), M.Agric. (Miyazaki), Ph.D. (Kagoshima)*
- Kariyawasam, A., *B.D.S. (Sri Lanka), Ph.D. (Toronto)*
- Nanayakkara, D. K. K., *M.B.B.S. (Sri Lanka), M.Phil. (N'Castle), Ph.D.*
- Parahitiyawa, N. B., *M.B.B.S., Pg.Dip., Ph.D.*
- Perera, A. L. T., *B.Sc. Agric. (Peradeniya), M.Sc. (Obihiro), Ph.D. (Birmingham)*
- Perera, E. R. K., *B.Sc. Agric. (Peradeniya), M.Sc., Ph.D. (VPI & SU)*
- Perera, H. K. I., *B.V.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Glasgow)*
- Perera, P. A. J., *B.Sc. (Ceylon), Ph.D. (Glasgow)*
- Pinto, V., *M.B.B.S., MD, FRCA (Lond.), FCARCST (Dublin)*
- Rajapakse, R. P. V. J., *B.V.Sc. (Peradeniya), Ph.D. (Peradeniya)*
- Rajapakse, R. G. S. C., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Hokkaido)*
- Ranasinghe, J. G. S., *B.V.Sc. (Peradeniya), M.Phil., Ph.D. (Kagoshima)*
- Samaraweera, P., *B.Sc. (Peradeniya), Ph.D. (Arizona)*
- Samita, S., *B.Sc. Agric., M.Phil. (Peradeniya), Ph.D. (Edin.)*
- Sandirigama, P. M. T. B., *B.Sc. Eng. (Peradeniya), M.Sc., Ph.D. (Ehime), Attorney-at-law (Sri Lanka)*
- Silva, S. S. P., *B.V.Sc. (Peradeniya), Ph.D.*
- Sivakanesan, R., *B.V.Sc. (Ceylon), Ph.D. (Hull)*
- Sivakumar, V., *B.Sc. (Peradeniya), M.Sc. (Georgia), Ph.D. (Georgia)*
- Sooriyapathirana, S. D. S. S., *B.Sc. Agric. (Peradeniya), M.Sc. (Peradeniya)*
- Sumanasinghe, V. A., *B.Sc. Agric. (Peradeniya), M.Sc., Ph.D. (Penn. State)*
- Yakandawala, D. M. D., *B.Sc. (Peradeniya), Ph.D. (Reading)*

12.2 Board of Study in Chemical Sciences

Abeyratne, S. G., *B.Sc. Eng. (Peradeniya), M.Sc. (Gifu, Japan), Ph.D. (Gifu, Japan)*
Abeyasinghe, I. S. B., *B.Sc. (Peradeniya), Ph.D. (Sheffield)*
Bandara, B. M. R., *B.Sc. (Sri Lanka), Ph.D. (ANU)*
Bandara, H. M. N., *B.Sc. (Ceylon), M.Sc., Ph.D. (Ast.)*
Bandara, J. M. R. S., *B.Sc. Agric. (Ceylon), Ph.D. (Lond.), D.I.C.*
Bandara, L. R. A. K., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Bandara, N. C., *B.Sc. (Peradeniya), M.Sc. (New Orleans), Ph.D. (New Orleans)*
Bandara, W. M. A. T., *B.Sc. (Peradeniya), Ph.D. (TIT)*
Chandrajith, R. L. R., *B.Sc. (Peradeniya), M.Sc. (Shimane-Japan), Ph.D. (Erlangen-FRG)*
Chandrakanthi, R. L. N., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Chandraratne, M. R., *B.Sc. (Peradeniya), M.Sc. (Leeds)*
Daundasekera, W. B., *B.Sc. (Peradeniya), M.Sc. (Alabama), Ph.D. (Alabama)*
Dharmadasa, D., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), MBA (Colombo)*
Dissanayake, M. A. K. L., *B.Sc. (Ceylon), M.S. (Indiana), Ph.D. (Indiana)*
Ekanayake, S., *B.Sc. (Peradeniya), M.Sc. (Mysore)*
Ganehenegge, M. Y. U., *B.Sc. (Peradeniya), Ph.D. (WSU)*
Herath, G. B. B., *B.Sc. (Eng.), Ph.D. (Tokyo)*
Hettiarachchi, C. V., *B.Sc. (Peradeniya), Ph.D. (TIT)*
Ileperuma, O. A., *B.Sc. (Ceylon), Ph.D. (Arizona)*
Jayasuriya, K. M. G. G., *B.Sc. (Peradeniya), Ph.D. (Kentucky)*
Jayawickrama, J. M. A., *B.A. (Peradeniya), M.A. (Thammasat)*
Kalpage, C. S., *B.Sc. Eng. (Moratuwa), Ph.D. (Birmingham), AMIChemE, AMIE SL*
Kankanamge, A. D. H. K., *B.Sc. (Peradeniya), Ph.D. (Oklahoma)*
Karunaratne, B. S. B., *B.Sc. (Ceylon), Ph.D. (Warwick)*
Karunaratne, D. G. G. P., *B.Sc. Eng. (Peradeniya), Ph.D. (Lisbon)*
Karunaratne, D. N., *B.Sc. (Colombo), Ph.D. (Brit. Col.)*
Karunaratne, V., *B.Sc. (Colombo), Ph.D. (Brit. Col.)*
Karunaratne, S. H. P. P., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Lond.)*
Kodituwakku, S. R., *B.Sc. (Peradeniya), M.Sc. (AIT), Ph.D. (RMIT)*
Kumar, N. S., *B.Sc. (Ceylon), Ph.D. (Lond.)*
Kumar, V., *B.Sc. (Ceylon), Ph.D. (Oxon.), D.Phil. (Oxon.)*
Malavipathirana, S., *B.Sc. (Peradeniya), M.Phil. (Peradeniya)*
Meegaskumbura, M., *B.Sc. (Peradeniya), Ph.D. (Boston)*
Nasir, H. M., *B.Sc. (Jaffna), M.Eng., D.Sc., Ph.D. (Japan)*
Navaratne, M. M. A. N., *B.Sc. (Peradeniya), Ph.D. (Hawaii)*
Perera, A. D. L. C., *B.Sc. (Peradeniya), Ph.D. (TIT)*
Premaratne, K., *B.Sc. (Ceylon), M.S., Ph.D. (Hawaii)*
Priyantha, H. M. D. N., *B.Sc. (Peradeniya), Ph.D. (Hawaii)*
Rajapakse, R. G. S. C., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Hokkaido)*
Rajapakse, R. M. G., *B.Sc. (Peradeniya), Ph.D. (Lond.)*
Rathnayake, I., *B.Sc. (Peradeniya), M.Sc. (Moratuwa)*
Samaranayake, L., *B.Sc. Eng. (Peradeniya), Ph.D. (Lic. Tech. KTH)*
Senaviratne, V. N., *B.Sc. (Peradeniya), Ph.D. (Cambridge)*
Seneviratne, V. A., *B.Sc. (Peradeniya), Ph.D. (Oklahoma)*
Sivakumar, V., *B.Sc. (Peradeniya), M.Sc. (Georgia), Ph.D. (Georgia)*
Tennakoon, D. A. S. S., *B.Sc. (Peradeniya), M.Sc. (Strathclyde)*
Tevanesam, V., *M.B.B.S. (Ceylon), DM (Peradeniya), MRCP (UK), MRC*
Udawatte, C. P., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*

Weerahewa, J., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Guelph)*
 Weerasooriya, S. V. R., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Wickremasinghe, A., *B.Sc. (Peradeniya), Ph.D. (FRG)*
 Wickremasinghe, W. R. M. U., *B.Sc. Eng. (Peradeniya), Pg.Dip. E. (Open University, Sri Lanka), M.I.E. (Sri Lanka), C.Eng.*
 Wimalasiri, K. M. S., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*

12.3 Board of Study in Earth Sciences

Chandrajith, R. L. R., *B.Sc. (Peradeniya), M.Sc. (Shimane-Japan), Ph.D. (Erlangen-FRG)*
 Dahanayake, K., *B.Sc. (Ceylon), Pg.Dip. (Nancy), Ph.D. (Nancy), D.Sc. (Ruhuna)*
 Dangolla, A., *B.V.Sc. (Peradeniya), Dip. (Helsinki), Ph.D. (KVL, Denmark)*
 De Silva, C. S., *B.Sc. (Ceylon), M.Phil. (Peradeniya), Ph.D. (Crane field)*
 Dharmagunawardhana, H. A., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D.*
 Dissanayake, C. B., *B.Sc. (Ceylon), D.Phil. (Oxon.), Ph.D. (Oxon.), D.Sc. (Oxon.)*
 Dissanayake, M. A. K. L., *B.Sc. (Ceylon), Ph.D. (Indiana)*
 Dissanayake, P. B. R., *B.Sc. Eng. (Peradeniya), M.Eng., Ph.D. (Ehime)*
 Dissanayake, U. I., *B.Sc. Eng. (Peradeniya), Ph.D. (Sheffield)*
 Edirisinghe, H. J., *B.Sc. (Peradeniya), M.Eng., Ph.D. (Ehime)*
 Fernando, D. M. G., *M.B.B.S. (NCMC), M.Phil. (Peradeniya)*
 Gunaratne, L. H. P., *B.Sc. Agric. (Peradeniya), M.Sc., M.A., Ph.D. (Hawaii)*
 Gunatilake, A. A. J. K., *B.Sc. (Peradeniya), M.Sc. (AIT), Ph.D. (Saga)*
 Herath, G. B. B., *B.Sc. (Peradeniya), M.Eng. (AIT), Ph.D. (Tokyo)*
 Herath, H. M. D. R., *B.A. (Ceylon), M.A. (Delhi), Ph.D. (Peradeniya)*
 Indraratne, S. P. I., *B.Sc. Agric. (Peradeniya), Ph.D. (Manitoba)*
 Jayasena, H. A. H. J., *B.Sc. (Peradeniya), M.S. (Colorado)*
 Jayawardene, U. de S., *B.Sc. (Peradeniya), M.Sc. (AIT)*
 Karunanayake, D. D. K. S., *B.A. (Calgary), M.S. (Illinois), Ph.D. (Purdue)*
 Karunaratne, D. G. G. P., *B.Sc. Eng. (Peradeniya), Ph.D. (Lisbon)*
 Kodituwakku, K. A. W., *B.Sc. (Peradeniya), M.Sc. (Netherlands)*
 Kurukulasooriya, L. C., *B.Sc. Eng. (Moratuwa), M.Eng., Ph.D. (Saitama)*
 Mapa, R. B., *B.Sc. Agric. (Peradeniya), Ph.D. (Hawaii)*
 Marambe, P. W. M. M. B., *B.Sc. Agric. (Peradeniya), D. Agric. (Hiroshima)*
 Nandalal, K. D. W., *B.Sc. Eng. (Peradeniya), M.Eng. (AIT), Ph.D. (Wageningen)*
 Nawaratne, S.W., *B.Sc. (Ceylon), Pg.Dip. (Leoben), M.Sc. (Laurentian), Ph.D. (Vienna)*
 Pathirana, K. P. P., *B.Sc. Eng. (Peradeniya), M.Eng., Ph.D. (KU Leuven)*
 Perera, K., *B.Sc. (Japan), M.A., Ph.D. (SUNY Albany)*
 Perera, L. R. K., *B.Sc. (Peradeniya), M.Phil. (Peradeniya)*
 Pethiyagoda, K., *M.B.B.S. (Peradeniya), M.Sc. (Colombo), Ph.D. (Birmingham)*
 Pitawala, H. M. T. G. A., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Mainz)*
 Rathnayake, U., *B.Sc. Eng. (Peradeniya), M.Eng., D.Eng. (AIT)*
 Sathyaprasad, I. M. S., *B.Sc. Eng. (Moratuwa), M.Eng. (AIT), D.Eng. (Yokohama)*
 Senaratne, A., *B.Sc. (Peradeniya), Pg.Dip. (Lond.), M.Sc. (Lond.), Ph.D. (Mainz.)*
 Senaviratne, K. G. H. C. N., *B.Sc. Eng. (Ceylon), Ph.D. (Cambridge)*
 Udawatta, C. P., *B.Sc. (Peradeniya), M.Phil. & Ph.D. (Peradeniya)*
 Wickramanayake, P. N., *B.Sc. Eng. (Peradeniya), M.Sc. (MIT), Ph.D. (MIT)*
 Wijekoon, P., *B.Sc. (Kelaniya), Ph.D. (Dortmund)*

Wijethunga, J. J., *B.Sc. Eng. (Moratuwa), Ph.D. (Cantab.)*
Yapa, Y. P. R. D., *B.Sc. (Sri Jayawardhanapura), M.Sc. (Colombo), D.Eng. (Hiroshima)*

12.4 Board of Study in Environmental Science

Dahanayake, K., *B.Sc. (Ceylon), Pg.Dip. (Nancy), Ph.D. (Nancy), D.Sc. (Ruhuna)*
Damunupola, J. W., *B.Sc. (Peradeniya), Ph.D. (Queensland)*
Dissanayake, C. B., *B.Sc. (Ceylon), D.Phil. (Oxon.), Ph.D. (Oxon.), D.Sc. (Oxon.)*
Edirisinghe, J. P., *B.Sc. (Ceylon), Ph.D. (Adelaide)*
Edirisinghe, U., *B.Sc., M.Sc., Ph.D. (Ceylon)*
Fernando, G. W. A. R., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Mainz)*
Gamage, B. S. C., *B.Sc. (Colombo), M.Sc. (Peradeniya)*
Ganehenegge, M. Y. U., *B.Sc. (Peradeniya), Ph.D. (WSU)*
Gunaratne, A. M. T. A., *B.Sc. (Peradeniya), Ph.D. (Aberd.)*
Hennayake, S., *B. A., M.A. (Peradeniya), Ph.D. (Syracuse)*
Herath, G. B. B., *B.Sc. Eng. (Peradeniya), M.Eng. (AIT, Bangkok), Ph.D. (Tokyo)*
Ileperuma, O. A., *B.Sc. (Ceylon), Ph.D. (Arizona)*
Ileperuma, S., *B.Sc. (Ceylon), MLS (Colombo)*
Jayaratne, R. N. R., *B.Sc. (Colombo), M.Phil. (Peradeniya)*
Jayasuriya, K. M. G. G., *B.Sc. (Peradeniya), Ph.D. (Kentucky)*
Karunaratne, B. S. B., *B.Sc. (Ceylon), Ph.D. (Warwick)*
Karunaratne, W. A. I. P., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Kumburegama, S., *B.Sc. (Peradeniya), Ph.D. (Hawaii)*
Meegaskumbura, S., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Boston)*
Navaratne, M. M. A. N., *B.Sc. (Peradeniya), Ph.D. (Hawaii)*
Padmasiri, J. P., *B.Sc. (Ceylon), M.Phil. (Peradeniya)*
Pitawala, H. M. T. G. A., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Mainz)*
Priyantha, H. M. D. N., *B.Sc. (Peradeniya), Ph.D. (Hawaii)*
Rajakaruna, R. S., *B.Sc. (Peradeniya), Ph.D. (MUN)*
Ranawana, K. B., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), M.S. (SUNY-ESF, USA)*
Samita S., *B.Sc. Agric. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Edin.)*
Weerakoon, G. M. P. R., *B.Sc. (Peradeniya), M.Sc. (Newcastle)*
Wijayawardena, R. L., *B.Sc. (Peradeniya), M.Sc., Ph.D. (SUNY)*
Wijesooriya, W. A. D. D., *B.Sc. (Kelaniya), M.Sc., ITC (The Netherlands)*
Yakandawala, K., *B.Sc. (Peradeniya), Ph.D. (Colombo), M.Sc. (Reading)*
Yatigamma, S. K., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Queen's)*

12.5 Board of Study in Mathematics

Alahakoon, S., *B.Sc. Eng. (Peradeniya), Ph.D. (Sweden)*
Daundasekara, W. B., *B.Sc. (Peradeniya), M.A. (Alabama), Ph.D. (Alabama)*
Dharmadasa, J. P. D., *B.Sc. (Ceylon), M.Phil. (Lond.)*
Dissanayake, U. N. B., *B.Sc. (Peradeniya), Ph.D. (Alberta)*
Jayawardene, C. J., *B.Sc. (Colombo), M.Sc. (Ohio State), M.Sc., Ph.D. (Memphis)*
Kanaganathan, S., *B.Sc. (Ceylon), M.Sc. (Ceylon), M.Sc. (Liverpool), Ph.D. (Jaffna)*
Ekanayake, M. B., *B.Sc. (Peradeniya), Ph.D. (Wallongon)*
Ekanayake, M. P. B., *B.Sc. Eng. (Peradeniya), Ph.D. (Texas Tech)*
Kodituwakku, S. R., *B.Sc. (Peradeniya), M.Sc. (AIT), Ph.D. (RMIT)*
Mampitiya, M. A. U., *B.Sc. (Kelaniya), M.Sc. (Ottawa), Ph.D. (Ottawa)*
Nazir, H. M., *B.Sc. (Jaffna), Ph.D. (TUEC/Tokyo)*
Palamakumbura, G. W. R. M. R., *B.Sc. (Peradeniya), M.Sc. (Texas Tech), Ph.D. (Texas Tech)*
Perera, S. S. N., *B.Sc. (Colombo), M.Sc. (Trieste), Ph.D. (Kaiserslautern)*
Perera, A. A. I., *B.Sc. (Peradeniya), M.Sc. (Oslo), Ph.D. (Melbourne)*
Perera, A. A. S., *B.Sc. (Peradeniya), Ph.D. (SUNY/Albany)*
Samaranayaka, L., *B.Sc. Eng. (Peradeniya), MIEEEE, AMIESL, Ph.D. (Tech.Lic.)*
Siyambalapitiya, S. B., *B.Sc. (Ceylon), M.Sc., Ph.D. (NSW),*
Sooriyaarachchi, D. J. C., *B.Sc. (Ceylon), Diploma (Peradeniya), M.Sc. (Manch.)*
Samaranayake L., *B.Sc. Eng. (Peradeniya), Ph.D. (RITS/Sweden)*
Samarathunga, D. M., *B.Sc. (Peradeniya), Ph.D. (WSU)*
Susantha, K. A. S., *B.Sc. Eng. (Peradeniya), M.Eng. (AIT), D.Eng. (Nagoya)*
Walgama, K. S., *B.Sc. Eng. (Moratuwa), M.Eng. (Netherlands), M.Sc. (Alberta), Ph.D. (Lulea)*
Wijekoon, P., *B.Sc. (Kelaniya), Ph.D. (Dortmund)*
Yapa, R. D., *B.Sc. (Sri Jayawardanapura), M.Sc. (Colombo), DEng. (Hiroshima)*

12.6 Board of Study in Physics

Anil, Ranjith, *B.Sc. (Colombo), M.Sc. (Colombo)*
Bandara, H. M. N., *B.Sc. (Ceylon), M.Sc., Ph.D. (Ast.)*
Bandara, L. R. A. K., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Bandaranayake, P. W. S. K., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Careem, M. A., *B.Sc. (Ceylon), Ph.D. (Lond.)*
Chandrankanthi, R. L. N., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Dissanayake, M. A. K. L., *B.Sc. (Ceylon), M.S. (Indiana), Ph.D. (Indiana)*
Dilip Kumara, A.H., *B.Sc. (Ruhuna), M.Sc. (Peradeniya)*
Dasanayake, B.S., *B.Sc. (Peradeniya.), Ph.D. (Huston)*
Ekanayake, P., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Halle-Germany)*
Gunaratne J., *B.Sc., (Peradeniya), M.Sc. (Peradeniya)*
Hettiarachchi, N. F., *B.Sc. (Ceylon), Ph.D. (Hull)*
Hewavithana, B., *M.B.B.S. (Peradeniya), M.D. (Colombo),*
Jayalath, J. A. C. P., *B.Sc., (Peradeniya.), Ph.D. (Virginia)*
Jayasinghe, J. M. A. C., *B.Sc. (Colombo), M.Sc. (Colombo)*
Kariyawasam, A., *B.D.S. (Peradeniya), Ph.D. (Toronto)*
Karunaratne, B. S. B., *B.Sc. (Ceylon), Ph.D. (Warwick)*
Kasige, C., *B.Sc. (Peradeniya), M.Sc. (Colombo)*
Kulatunge, S., *B.Sc.(Peradeniya.), M.Sc.(Cincinnati), Ph.D.(Cincinnati)*
Kumburegama, N. P. S., *B.Sc.(Peradeniya), Ph.D. (Manoa)*

Liyanage, J. P., *B.Sc. (Colombo), Ph.D. (Colombo)*
 Nanayakkara, D. K. K., *M.B.B.S. (Peradeniya), M.Phil. (N' Castle), Ph.D. (N' Castle)*
 Nasir, H. M., *B.Sc. (Jaffna), Ph.D. (Japan)*
 Pinidiyaarachchi, A. J., *B.Sc. (Peradeniya), Ph.D. (Uppsala)*
 Premaratne, K., *B.Sc. (Ceylon), M.S., Ph.D. (Hawaii)*
 Ranaweera, R., *B.Sc. (Peradeniya), Ph.D. (Indiana)*
 Rosairo, S., *M.B.B.S. (Peradeniya), MD, FRCP*
 Seneviratne, V. A., *B.Sc. (Peradeniya), Ph.D. (Oklahoma)*
 Sivakanesan, K., *B.V.Sc. (Ceylon), Ph.D. (Hull)*
 Sivakumar, V., *B.Sc. (Peradeniya), M.Sc. (Georgia), Ph.D. (Georgia)*
 Wijayawardena, R. L., *B.Sc. (Ceylon), M.S., Ph.D. (SUNY)*
 Yapa, Y. P. R. D., *B.Sc. (Sri Jayawardhanapura), M.Sc. (Colombo), D.Eng. (Hiroshima)*
 Yatigamma, S. K., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Queen's)*

12.7 Board of Study in Plant Sciences

Abayasekara, C. L., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Abeywickrama, K. P., *B.Sc. (Colombo), M.Sc. (Maryland), Ph.D. (Maryland)*
 Adikaram, N. K. B., *B.Sc. (Ceylon), Ph.D. (Belfast)*
 Adikari, S., *M.B.B.S. (Peradeniya), Ph.D. (Karolinska, Sweden)*
 Ariyaratne, H. A. C., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), M.Phil. (Colombo)*
 Arulkanthan, A., *B.V.Sc. (Peradeniya), M.Sc. (WSU)*
 Bandara, B. M. R., *B.Sc. (Sri Lanka), Ph.D. (ANU)*
 Bandara, N. C., *B.Sc. (Peradeniya), M.Sc. (New Orleans), Ph.D. (New Orleans)*
 Corea, E., *M.B.B.S. (Colombo), Dip. (Colombo), MD (Colombo), CTHE (Colombo), SEDA (UK), Cert Med Ed (Dundee)*
 Damunupola, J. W., *B.Sc. (Peradeniya), Ph.D. (Queensland)*
 Daundasekera, W. A. M., *B.Sc. (Peradeniya), Ph.D. (Cranfield)*
 de Silva, N., *M.B.B.S. (PATNA), Dip. (Colombo), M.D. (Colombo)*
 Edirisinghe, J. P., *B.Sc. (Ceylon), Ph.D. (Adelaide)*
 Gunatilleke, C. V. S., *B.Sc. (Ceylon), M.Sc. (Aberd.), Ph.D. (Aberd.)*
 Gunatilleke, I. A. U. N., *B.Sc. (Ceylon), Ph.D. (Cantab.)*
 Hewage, S., *B.Sc. Agric. (Peradeniya), Ph.D. (Lond.)*
 Iddawela, W. M. D. R., *M.B.B.S. (Peradeniya), Ph.D. (Peradeniya)*
 Gunarathne, A. M. T. A., *B.Sc. (Peradeniya), Ph.D. (Aberd.)*
 Gunatillaka, M. M., *M.B.B.S. (Colombo), Dip. (Colombo), MD (Colombo)*
 Illeperuma, O. A., *B.Sc. (Ceylon), Ph.D. (Arizona)*
 Jayathilake, S., *B.D.S. (Peradeniya), Ph.D. (Hong Kong)*
 Jayasuriya, K. M. G. G., *B.Sc. (Peradeniya), Ph.D. (Kentucky)*
 Jinadasa, R. N., *B.V.Sc. (Peradeniya), M.Sc. (Nebraska-Lincoln), Ph.D. (Cornell)*
 Kalupahana, A. V., *B.V.Sc. (Peradeniya), M.Sc. (Cantab.)*
 Kalupahana, R., *B.V.Sc. (Peradeniya), Ph.D. (Cantab.)*
 Kanakarathne, N., *MD (St. Petersburg, Russia), M.Sc. (Kelaniya), Ph.D. (Peradeniya)*
 Karunaratne, A. M., *B.Sc. (Peradeniya), M.Sc. (Nebraska), Ph.D. (Peradeniya)*
 Kothalawala, M., *M.B.B.S. (Colombo), Dip. (Colombo), MD (Colombo), MPH (Massey, NZ)*
 Kulasoorya, S. A., *B.Sc. (Ceylon), Ph.D. (Lond.)*
 Madawala Weerasinghe, H. M. S. P., *B.Sc. (Peradeniya), M.Phil. (Cantab.), Ph.D. (Cantab.)*
 Magana Arachchi, D., *B.Sc. (Colombo), Ph.D. (Colombo)*

Morel, R., *M.B.B.S. (Colombo), Dip. (Colombo), MD (Colombo)*
 Nagahawatte, A., *M.B.B.S. (Colombo), Dip. (Colombo), MD (Colombo)*
 Noordeen, F., *B.V.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D (Adelaide)*
 Panagoda, G. J., *B.Sc. (Panjab), M.Sc. (Kelaniya), Ph.D. (Hong Kong)*
 Parahitiyawa, N., *M.B.B.S. (Peradeniya), Dip. (Colombo), Ph.D. (Hong Kong)*
 Perera, G. A. D., *B.Sc. (Peradeniya), D.Phil. (Oxon.)*
 Perera, P. A. J., *B.Sc. (Ceylon), Ph.D. (Glasgow)*
 Perera, J., *M.B.B.S. (Colombo), Dip. (Colombo), MD (Colombo)*
 Pethiyagoda K., *M.B.B.S. (Peradeniya), M.Sc. (Colombo), Ph.D. (Birmingham)*
 Prematilleke, S. P., *B.Sc. (Kelaniya), M.Sc. (Sri Jayawardhanapura)*
 Priyantha, R., *B.V.Sc. (Peradeniya), M.Sc. (Peradeniya)*
 Rajapakse, R. G. S. C., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Hokkaido)*
 Rajapakse, R. P. V. J., *B.V.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Rajapakse, S., *B.D.S. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Melbourne)*
 Rubasinghe, S. C. A., *B.Sc. (Peradeniya), M.Phil. (Peradeniya) Ph.D. (Edin.)*
 Samaraweera, P., *B.Sc. (Peradeniya), Ph.D. (Arizona)*
 Samita, S., *B.Sc. Agric. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Edin.)*
 Sooriyapathirana, S. D. S. S., *B.Sc. Agric. (Peradeniya), M.Sc. (Peradeniya),
 Ph.D. (Michigan State)*
 Sunil-Chandra, N. P., *B.V.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Cambridge)*
 Suranjith, G. A. N., *B.Sc. (Peradeniya), Ph.D. (Kentuky)*
 Thevanesam, V., *M.B.B.S. (Ceylon), DM (Peradeniya), MRCP (UK), MRCPPath (UK)*
 Wickramasinghe, A., *B.Sc. (Peradeniya), Ph.D. (Munstr.)*
 Wickramasinghe S., *B.V.Sc. (Peradeniya), M.Sc. (Kochi, Japan), Ph.D. (Kochi, Japan)*
 Wickremasinghe, T., *B.Sc. (Kelaniya), M.Sc. (Moratuwa), MBA (Colombo)*
 Wijekoon, P., *B.Sc. (Kelaniya), Ph.D. (Dortmund)*
 Wijeratnam, S. W., *B.Sc., Ph.D. (Lond.)*
 Wijesekara, G. A. W., *B.Sc. Agric. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Maryland)*
 Wijesundara, D. S. A., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (New York)*
 Wimalasiri, K. M. S., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Yakandawala, D., *B.Sc. (Peradeniya), Ph.D. (Reading)*

12.8 Board of Study in Science Education

Abeygunaratne, H., *B.Sc. (Peradeniya), Dip. Ed., M.Sc. (Peradeniya)*
 Abeykoon Menike, A. R. G. A. M., *B.Sc. (Peradeniya), Dip., M.Sc., Ph.D. (Peradeniya)*
 Abeyratne, N., *B.Sc. (Peradeniya), Dip., M.Sc. (Peradeniya)*
 Abeysekara, C. L., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Adikaram, N. K. B., *B.Sc. (Ceylon), Ph.D. (Belfast)*
 Amunugama, T. K., *B.Sc., Dip., M.Sc. (Peradeniya)*
 Ariyasinghe, A. R., *B.Sc., Dip., M.Sc. (Peradeniya)*
 Bandara, B. M. R., *B.Sc. (Sri Lanka), Ph.D. (ANU)*
 Bandara, H. M. N., *B.Sc. (Ceylon), Ph.D. (Aston)*
 Bandara, K. R. A., *B.Sc. (Ceylon), M.Sc. (Reading), M. Phil. (Colombo)*
 Bandara, W. M. A. T., *B.Sc. (Peradeniya) Ph.D. (Tokyo Inst. Tech.)*
 Bandara, L. R. A. K., *B.Sc., Ph.D. (Peradeniya)*
 Bandaranayake, P. W. S. K., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Biyagamage, C., *B.Sc. (Peradeniya), Dip. (Open University, Sri Lanka), M.Sc. (Peradeniya)*

Dahanayake, K., *B.Sc. (Ceylon), Pg.Dip. (Nancy), Ph.D. (Nancy), D.Sc. (Ruhuna)*
 Damunupola, J. W., *B.Sc. (Peradeniya), Ph.D. (Queensland)*
 Daundasekera, W. A. M., *B.Sc. (Peradeniya), Ph.D. (Cranfield)*
 Daundasekera, W. B., *B.Sc. (Peradeniya), M.A., Ph.D. (Alabama)*
 Dharmagunawardena, H. A., *B.Sc., M.Phil. (Peradeniya), Ph. D. (Copenhagen)*
 Dharmadasa, J. P. D., *B.Sc. (Ceylon), M.Phil. (Lond.)*
 Dissanayake, M. A. K. L., *B.Sc. (Ceylon), M.S. (Indiana), Ph.D. (Indiana)*
 Dissanayake, U. N. B., *B.Sc. (Peradeniya), M.Sc., Ph.D. (Alberta)*
 Edirisinghe, J. P., *B.Sc. (Ceylon), Ph.D. (Adelaide)*
 Ekanayake, M. B. *B.Sc. (Peradeniya), Ph.D. (Wallongon)*
 Ekanayake, P., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Halle-Germany)*
 Ganehenege, M. Y. U., *B.Sc. (Peradeniya), Ph.D. (WSU)*
 Gunaratne, A. M. T. A., *B.Sc. (Peradeniya), Ph.D. (Aberd.)*
 Gunaratne, R. D., *B.A. (Ceylon), M.A. (Calif.), Ph.D. (Camb.)*
 Gunatilleke, I. A. U. N., *B.Sc. (Ceylon), Ph.D. (Cambridge)*
 Herath, N., *B.Sc. (Ceylon), Dip. (Bristol), M.Sc. (East Anglia)*
 Hettiarachchi, C. V., *B.Sc. (Peradeniya), Ph.D. (Tokyo Inst. Tech.)*
 Hettiarachchi, N. F., *B.Sc. (Ceylon), Ph.D. (Hull)*
 Ileperuma, O. A., *B.Sc. (Ceylon), Ph.D. (Arizona)*
 Jayalath, C. P., *B.Sc. (Peradeniya), Ph.D. (Hampton)*
 Jayasuriya, K. M. G. G., *B.Sc. (Peradeniya), Ph.D. (Kentucky)*
 Jayasundara, A. C. A., *B.Sc. (Sri Jayawardhanapura), M.Phil. (Cardif), Ph.D. (St. Andrews)*
 Jayawardene, C. J., *B.Sc. (Colombo) M.Sc. (Ohio), Ph.D. (Memphis)*
 Kanaganathan, S., *B.Sc. (Ceylon), M.Sc. (Ceylon), M.Sc. (Liverpool), Ph.D. (Jaffna)*
 Karunaratne, B. S. B., *B.Sc. (Ceylon), Ph.D. (Warwick)*
 Karunaratne, D. N., *B.Sc. (Colombo), Ph.D. (Brit. Col.)*
 Karunaratne, S., *B.Sc. (Ceylon), Dip., M.Sc. (Peradeniya), M.Ed. (Bristol), Ph.D. (Michigan State)*
 Karunaratne, W. A. I. P., *B.Sc. (Peradeniya), Ph.D. (Peradeniya)*
 Karunaratne, A. M., *B.Sc. (Ceylon), M.S. (Nebraska), Ph. D. (Peradeniya)*
 Karunaratne, S. H. P. P., *B.Sc. (Peradeniya), Ph.D. (Lond.)*
 Kodituwakku, G., *B. Ed. (Colombo), M. Phil. (Peradeniya), Ph.D. (Colombo)*
 Kularatna, N. G., *B.A. (Ceylon), Dip. (Ceylon), M. A. (Peradeniya), Ph.D. (Peradeniya)*
 Kulasoorya, S. A., *Vidyanidi, B.Sc. (Ceylon), Ph.D. (Lond.)*
 Liyanage, J. P., *B.Sc. (Colombo), Ph.D. (Colombo)*
 Madawala Weerasinghe, H. M. S. P., *B.Sc. (Peradeniya), M.Phil. (Cantab.), Ph.D. (Cantab.)*
 Mahagamage, P. K. R., *B.Sc. (Peradeniya), Dip., M.Sc. (Peradeniya)*
 Mallikarachchi, D. D., *B.A., M.A. (Ceylon), Ph.D. (Moscow)*
 Mampitiya, M. U. M., *B.Sc. (Kelaniya), M.Sc. (Ottawa), Ph.D. (Ottawa)*
 Nanayakkara, G. L. S., *B.Sc. (Ceylon), M.Ed. (Sussex), Ph.D. (Reading)*
 Peiris, K. S. K., *B.Sc., M.Phil. (Colombo), M.Sc. (Peradeniya)*
 Perera, A. A. I., *B.Sc. (Peradeniya), M.Sc. (Oslo), Ph.D. (Melbourne)*
 Perera, A. A. S., *B.Sc. (Peradeniya), Ph.D. (SUNY, Albany)*
 Perera, A. D. L. C., *B.Sc. (Peradeniya), Ph.D. (Tokyo Inst. Tech.)*
 Perera, G A D, *B.Sc. (Peradeniya), M.Sc., D. Phil. (Oxon.)*
 Premaratne, K., *B.Sc. (Ceylon), M.S., Ph.D. (Hawaii)*
 Priyantha, H. M. D. N., *B.Sc. (Peradeniya), Ph.D. (Hawaii)*
 Rajapakse, R. M. G., *B.Sc. (Ceylon), Ph.D. (Lond.)*
 Rajapakse, S., *B.Sc. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Hokkaido)*
 Ratnayake, U. P., *B.Sc. (Peradeniya), Dip. Ed., M.Sc. (Peradeniya)*

Ratnayake, R. M. C. K., *B.Sc., Dip., M. Sc. (Peradeniya)*
 Ranawana, K. B., *B.Sc. (Peradeniya), M.S. (SUNY/Albany), M.Phil. (Peradeniya)*
 Samarasekara, P., *B.Sc. (Kelaniya), Ph.D. (CUNY)*
 Samarathunga, D. M., *B.Sc. (Peradeniya), Ph.D. (WSU)*
 Samaraweera, P., *B.Sc. (Peradeniya), Ph.D. (Arizona)*
 Sedere, M. U., *B.Ed. (Ceylon), M.A., Ph.D. (Iowa)*
 Senaratne, A., *B.Sc. (Peradeniya), Dip., M.Sc. (Lond.), Ph.D. (Mainz)*
 Seneviratne, V. A., *B.Sc. (Peradeniya), Ph.D. (Oklahoma)*
 Sivakumar, V., *B.Sc. (Peradeniya), M.S., Ph.D. (Georgia)*
 Siyambalapitiya, S. B., *B.Sc. (Ceylon), M.Sc., Ph.D. (N' Castle), MIIE (Australia)*
 Sooriyapathirana, S. D. S. S., *B.Sc. Agric. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Michigan)*
 Sugathapala, A. G. T., *B.Sc. Eng. (Moratuwa), Ph.D. (Cambridge), C. Eng., MIESL*
 Vitharana, P. R. K. A., *B.Sc. (Open University, Sri Lanka), Dip. (Peradeniya), M.Sc. & Ph.D. (Peradeniya)*
 Waidyaratne, C. K., *B.Sc., Dip. (Ceylon)*
 Walgama, K. S., *B.Sc. Eng. (Moratuwa), M.Eng. (Netherlands), M.Sc. (Alberta), Ph.D. (Lulea)*
 Weerasooriya, R., *B.Sc., Ph.D. (Peradeniya)*
 Wickramasinghe, A., *B.Sc. (Peradeniya), Ph.D. (FRG)*
 Wickramasinghe, D. T., *B.Sc. (Peradeniya), M.S. & Ph.D. (Pennsylvania)*
 Wickremasinghe, W. C. P., *B.Sc. (Peradeniya), Dip. (NIE), M.Sc. (Peradeniya)*
 Wijayawardena, R. L., *B.Sc. (Ceylon), M.S., Ph.D. (Albany)*
 Wijekoon, P., *B.Sc. (Kelaniya), Ph.D. (Dortmund)*
 Yakandawala, D., *B.Sc. (Peradeniya), Ph.D. (Reading)*
 Yatigammana, T. M. S. S. K., *B.Sc. (Peradeniya), Dip., M.Sc. (Peradeniya), Ph.D. (Bristol)*
 Yatigammana, S. K., *B.Sc. (Peradeniya), Ph.D. (Queen's)*

12.9 Board of Study in Statistics and Computer Science

Alahakoon, P. M. K., *B.Sc. Eng. (Peradeniya), M.Sc. (VPI & SU), Ph.D. (UMC)*
 Daundesekara, W.B., *B.Sc. (Peradeniya), M.A. (Alabama) Ph.D. (Alabama)*
 Dharmaratne, S. D., *M.B.B.S. (Colombo), M.Sc. (Colombo), M.D. (Colombo)*
 Gunaratne, L. H. P., *B.Sc. Agric. (Peradeniya), M.Sc., M.A., Ph.D. (Hawaii)*
 Herath, V. R., *B.Sc. Eng. (Peradeniya), MSECE (Miami), AMIEE*
 Karunasinghe, D. S. K., *B.Sc. Eng. (Peradeniya), Ph.D. (NUS)*
 Kodituwakku, S. R., *B.Sc. (Peradeniya), M.Sc. (AIT)*
 Liyanage, K. M., *B.Sc. Eng. (Peradeniya), M.Eng. (Tokyo), Dr.Eng. (Tokyo), MIEEE*
 Nasir, H. M., *B.Sc. (Jaffna), Ph.D. (Japan)*
 Palamakumbura, R., *B.Sc. (Peradeniya), M.Sc. (Massachusetts)*
 Peiris, B. L., *B.Sc. Agric. (Peradeniya), M.Sc., Ph.D. (Iowa)*
 Perera, A. A. I., *B.Sc. (Peradeniya), M.Sc. (Oslo), Ph.D. (Melbourne)*
 Perera, K., *B.Sc. (Sri Jayawardhanapura), M.A., Ph.D. (New York)*
 Pinidiyaarachchi, A. J., *B.Sc. (Peradeniya), Ph.D. (Uppsala)*
 Ramanayake, D. N. D., *B.Sc. (Peradeniya), M.Sc. (AIT), Ph.D. (Washington)*
 Samaranayake, B. G. L. T., *B.Sc. Eng. (Peradeniya), Ph.D. (Lic. Tech., Sweden)*
 Samita, S., *B.Sc. Agric. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Edin.)*
 Sandirigama, M., *B.Sc. Eng. (Peradeniya), M.Sc., Ph.D. (Ehime)*
 Walgama, K. S., *B.Sc. Eng. (Moratuwa), M.Eng. (Netherlands), M.Sc. (Alberta), Ph.D. (Luella)*

Wijekoon, P., *B.Sc. (Kelaniya), Ph.D. (Dortmund)*
Wijekulasooriya, J. V., *B.Sc. Eng. (Peradeniya), Ph.D. (Newcastle-upon-Tyne)*
Yapa, Y. P. R. D., *B.Sc. (Sri Jayawardhanapura), M.Sc. (Colombo), D.Eng. (Hiroshima)*

12.10 Board of Study in Zoological Sciences

Amarasinghe, U. S., *B.Sc. (Kelaniya), Ph.D. (Ruhuna)*
Dangolla, A., *B.V.Sc. (Peradeniya), Dip. (Finland), Ph.D. (Denmark)*
Dharmaratne, S., *M.B.B.S. (Colombo), M.Sc. (Colombo), MD (Colombo)*
Dissanayake, W. G. A., *M.B.B.S. (Peradeniya), M.Sc. (Colombo)*
Edirisinghe, J. P., *B.Sc. (Ceylon), Ph.D. (Adelaide)*
Edirisinghe, J. S., *M.B.B.S. (Ceylon), M.Sc. (Lond.), Ph.D. (Lond.)*
Edirisinghe, U., *B.Sc. (Ceylon), M.Sc. & Ph.D. (Ceylon)*
Gamage, S. A. K., *M.B.B.S. (Peradeniya), M.Sc. (Colombo)*
Ileperuma, O. A., *B.Sc. (Ceylon), Ph.D. (Arizona)*
Ileperuma, S., *B.Sc. (Ceylon), MLS (Colombo)*
Jayakody, G., *MD (Russia), M.Sc. (Colombo), MD (Colombo)*
Jayasinghe, A., *M.B.B.S. (Peradeniya), DCH (Lond.), DHTM (Lond.), M.Sc. (Lond.), FRCP (Glasg.), FRCP (Edin.), FRCP (Lond.)*
Kalupahana, R., *B.V.Sc. (Peradeniya), Ph.D. (Cantab.)*
Karunaratne, S. H. P. P., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Lond.)*
Kumarasiri, P. V. R., *M.B.B.S. (Peradeniya), MD (Colombo)*
Padmasiri, J. P., *B.Sc. (Ceylon), M.Phil. (Peradeniya)*
Perera, G. A. D., *B.Sc. (Peradeniya), M.Sc. (Oxon.), D.Phil. (Oxon.)*
Rajapakse, R. P. V. J., *B.V.Sc. (Peradeniya), Ph.D. (Peradeniya)*
Samita, S., *B.Sc. Agric. (Peradeniya), M.Phil. (Peradeniya), Ph.D. (Edin.)*
Santiapillai, C., *B.Sc. (Ceylon), Ph.D. (Southampton)*
Silva, I. D., *B.V.Sc. (Ceylon), Ph.D. (Calif.)*
Siribaddana, A., *M.B.B.S. (Peradeniya), MD (Peradeniya), MRCP (UK)*
Wijayathilake, T., *B.V.Sc. (Peradeniya), MTAP (The Netherlands)*
Wijekoon, P., *B.Sc. (Kelaniya), Ph.D. (Dortmund)*
Yakandawala, H., *M.B.B.S. (Peradeniya), M.Sc. (Colombo), PgDip. (Colombo)*
Yatigamma, S. K., *B.Sc. (Peradeniya), M.Sc. (Peradeniya), Ph.D. (Queen's)*

13.0 RESEARCH PROGRAMMES/COLLABORATIVE PROJECTS OF BOARDS OF STUDY

Resources are available for postgraduate students in the following areas.

13.1 *Board of Study in Biochemistry and Molecular Biology*

- Molecular diagnosis and pathogenesis of diseases.
- Bioactive compounds from medicinal plants and traditional aurvedic 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.

13.2 *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

13.3 *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.

13.4 *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.

13.5 Board of Study in Mathematics

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

13.6 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

13.7 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

13.8 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

13.9 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)

13.10 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