STUDENT HANDBOOK

MSc/MSc (Res) IN ENVIRONMENTAL SCIENCE

DEPARTMENT OF ZOOLOGY AND ENVIRONMENT SCIENCES

FACULTY OF SCIENCE

UNIVERSITY OF COLOMBO

SRI LANKA

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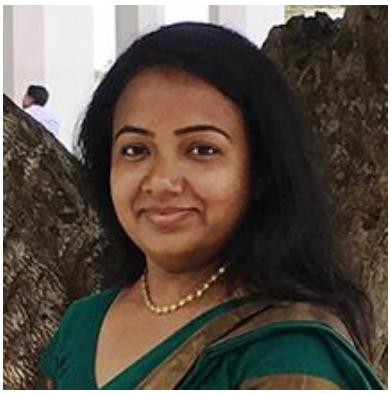

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Abbreviations

MSc – Master of Science

QAC – Quality Assurance Council

UGC – University Grants Commission

ILO – Intended Learning Outcomes

PG dip. – Postgraduate Diploma

HDC – Higher Degrees Committee

Table of Contents

1. Introduction

It has been well recognized that environmental issues such as resource diminution, global warming and ozone depletion, acid rain, pollution and the loss of biodiversity are not merely national issues but are those of global concern. Environmental Science encompassing a plethora of sub disciplines which include those from the natural and social sciences, seeks to provide an integrated, quantitative, and interdisciplinary approach to understand and address these pressing environmental problems. Hence, the need for trained environmental scientists has been driven primarily by the necessity to design multi-disciplinary approaches to analyze complex environmental issues owing to unplanned and unsustainable development and formulate substantive environmental laws that require specific environmental protocols for monitoring and mitigating impacts, and the increasing pressure from the general public to provide a safe environment.

The MSc in Environmental Science programme was introduced in the early 1980s with a vision to disseminate knowledge on the subject and for training environmental scientists. Overtime, considering developments and advances in the broad field of Environmental Science, the programme and the curriculum underwent several revisions, the latest being in 2009, which was accompanied by a significant change in the mode of delivery, from totally conventional to partly online. The structure of the programme was also altered to fall in line with the QAC framework of the UGC. With many pressing environmental issues challenging the survival of natural ecosystems and habitats including the health of human beings, there is a greater need to impart knowledge and skills to those in diverse spheres of development. Without a doubt, environmental scientists will be called upon to play an increasingly bigger role in the future, as we work towards understanding and mitigating environmental problems to ensure sustainability of our actions. The proposed revision of the MSc will incorporate up-to-date topics and approaches in Environmental Science and allied fields, aiming to upgrade skills and knowledge of the degree holders, so allowing them to effectively and readily respond to the many multifaceted national needs. The revision will include options for offering the to both national and international students.

2. Objectives

The aims of this programme are,

- to enhance the capacity of graduates in terms of knowledge and research skills.
- to provide a post-graduate qualification required for higher degrees and for employment.
- to produce persons with an expertise in Environmental Science required for the world of work.
- to increase the employment opportunities in the Environmental Science and related disciplines.
- to generate skilled human resources, thereby facilitating the mitigation and monitoring of environmental issues.

3. Intended Learning Outcomes (ILOs) of the Programme

At the end of the programme, students shall be able to,

i. demonstrate a critical awareness of the fundamental concepts, theories, processes, applications, current issues, and recent developments in the field of Environmental Science.
ii. analyse and assess environmental issues and to make precise interpretations, formulate and apply appropriate scientific methodologies, technologies, and approaches for solving environmental issues gather relevant data for addressing specific environmental issues.
iii. evaluate issues, and plan and execute appropriate solutions in a methodical and creative way to deal with issues and challenges in related industries.
iv. effectively communicate knowledge and findings, both in oral and written forms, to specialists and to the wider society.
v. demonstrate self-direction and originality in tackling and solving problems.
vi. demonstrate skills in independent learning for continuous professional development.
vii. maintain ethical standards and professional conduct at all times.

4. Career Path

Upon successful completion of the program, graduates are well-positioned to embark on diverse and rewarding career paths. The program equips students with a comprehensive understanding of environmental principles, research methodologies, and practical skills essential for addressing complex environmental challenges. Graduates may pursue opportunities in various sectors, including:

Environmental Consulting: Graduates can apply their expertise to provide valuable insights and solutions to businesses, government agencies, and communities. This may involve conducting environmental assessments, advising on regulatory compliance, and implementing sustainable practices.

Government Agencies: Many graduates find fulfilling careers within government agencies at the local, state or federal levels. They may contribute to policy development, environmental regulation enforcement, natural resource management, and environmental monitoring initiatives.

Non-profit Organizations: Graduates can make a difference by working with nonprofit organizations dedicated to environmental conservation, advocacy, and education. They may engage in community outreach programs, environmental research projects, and policy advocacy efforts.

Research Institutions: For those passionate about advancing scientific knowledge and innovation, careers in research institutions offer opportunities to conduct cutting-edge research on environmental issues such as climate change, biodiversity conservation, pollution mitigation, and ecosystem restoration.

Environmental Planning and Policy: Graduates may play pivotal roles in shaping environmental policies and strategies at local, national, and international levels. They can contribute their expertise to urban planning, land use management, sustainable development initiatives, and climate change adaptation and mitigation efforts.

Corporate Sustainability: In the private sector, graduates can pursue careers in corporate sustainability and environmental management. They may work for companies across various industries to develop and implement sustainability initiatives, reduce environmental footprints, and enhance corporate social responsibility practices.

Education and Outreach: Those passionate about environmental education and public outreach can pursue careers in academia, environmental education centers, museums, and nonprofit organizations. They may teach environmental science courses, develop educational materials, and engage in community outreach programs to raise awareness and promote environmental stewardship.

5. Programme Structure

The course structure is designed according to the guidelines issued by the Quality Assurance and Accreditation Council of the University Grants Commission, Sri Lanka, to fulfil criteria of MSc programmes. The MSc in Environmental Science offered by the Department of Zoology and Environment Sciences, University of Colombo consists of Part I, Part II and Part III, which corresponds to Levels 8, 9 and 10 in that order.

Part I - Postgraduate Diploma in Environmental Science (SLQF 8)
This component is equivalent to 25 Credits and runs over a duration of one year (two semesters). Four optional credits will be offered from which a student must take two. The examinations will be held at the end of each course. It is mandatory that students should fulfill the requirements of Part I (GPA 2.70 or greater). Students who fail to obtain a GPA of 3.00 but maintain a GPA of not less than 2.70 in Part I, will be eligible for the award of the Postgraduate Diploma (PG Dip.) in Environmental Science, upon request.

Part II - MSc in Environmental Science (SLQF 9)
This component will include an independent study of 5 Credits addressing current environmental issues and will run over a duration of six months: four months for conducting the study, followed by a two-month evaluation period. The stipulated deliverables will be evaluated throughout its duration. The students who successfully complete Part II with a minimum GPA 3.00 will be eligible for the award of the Degree of Master of Science in Environmental Science unless they qualify to proceed to Part III. Students who wish to proceed to Part III, can do so only if he/she has obtained a minimum GPA of 3.00 for Part II and completes parts I and II within a period of two years. A fallback option (to obtain the PG Dip.) is available for students who do not successfully complete Part II.

Part III - MSc (Research) in Environmental Science (SQLF 10)
This component primarily includes a research project, with some theory courses. The project could be carried out within or outside the university (with prior approval from the Higher Degrees Committee), under the guidance of a supervisor from within the Faculty of Science. Students who obtain a GPA of 3.00 or above for Part III will be eligible for the award of the degree of Master of Science (Research) in Environmental Science. A student who fails to achieve a GPA of 3.00 or above for Part III, will be eligible to be awarded the Degree of Master of Science in Environmental Science.

In addition to the GPA requirements, to be eligible for the award of the MSc (Res.)/MSc/PG Dip. in Environmental Science, a student must have fulfilled all other general requirements as prescribed by the relevant By-Laws and Rules and Regulations of the University of Colombo.

5.1 Target Group & Eligibility Requirements

For,

- Graduates who are expecting to pursue M. Phil/Ph.D. studies in a related field.
- Research officers/scientists, extension officers, and educators in public and private institutions.
- Qualified entrepreneurs and enthusiasts with an interest in the field.

A bachelor's degree in Biological Science or any other relevant field, obtained from a UGC recognized university or equivalent qualification/s acceptable to the Senate of the University of Colombo.

Qualifications considered under 'any other relevant field' will be subject to approval by the Higher Degrees Committee of the Faculty of Science, University of Colombo.

The students will be selected based on the formal qualifications and through an interview.

5.2 Duration

Part I shall be conducted usually in the 1.5 year of the programme over 2 semesters.

Part II shall be of 6 months duration.

Part III shall be 12 months.

The maximum period allowed to complete the degree is 5 years from the date of the first registration.

5.3 Mode of Delivery

All the courses are conducted in English. The theory components will be offered entirely online, whereas students would have the option of learning the practical/field components through a course offered online or conventional mode.

5.4 Evaluation Criteria

In Parts I and II, each of the theory courses will be evaluated through a written examination and assignments, as appropriate, whereas the practical components will be evaluated through assignments/ reports and other deliverables, and presentations. Part II which is the independent study will be assessed through a series of presentations and the final report submitted by the student. Part III will be evaluated through a dissertation, presentations, and viva-voce examination. The minimum grade a student should achieve to pass a course is B-.

Repeat examinations - The students will be permitted only once to sit for any of the repeat examination papers.

5.5 Course Modules and Brief Curriculum

Part I - Semester I			
		Credits	Notional hrs
MEN 1121	Concepts and Applications in Conservation Biology	2C	100
MEN 1132	Sustainable Management of Natural Resources	3C	150
MEN 1123	Ecotoxicology and Environmental Health	2C	100
MEN 1134	Natural Disasters and Disaster Risk Management	3C	150
MEN 1135	Environmental Certification and Assessment Protocols	3C	150
Part I - Semester II			
MEN 1221	An introduction to Environmental Economics	2C	100
MEN 1232	Environmental Law, Public Policies and Legislation	3C	150
MEN 1223	Climate Change	2C	100
MEN 1224	Pollution Prevention and Management	2C	100
MEN 1235	Techniques for environmental data collection and analysis, and scientific reporting	3C (Optional)	150
MEN 1236	Field techniques, data analysis and scientific reporting	3C (Optional)	150
	Total credits - Part I	*25C (i.e., 22 Compulsory & 3 Optional Credits*	
PART II			
MEN 2051	Independent Study	5C	500
	Total credits - Parts I and II	*30 Credits*	
PART III			
MEN 3051	Research Methodology	5C	250
MEN 3052	Seminar and Literature Review	5C	250
MEN 3203	Research Project	20C	2000
	Total (Parts I, II and III)	*60 Credits*	

6. Registration and Enrollment for Course Units

Once a year, the MSc in Environmental Science program is advertised. These advertisements are published in newspapers, university postgraduate web pages, and social media platforms.

At the commencement of each semester, students must pay the course fee installment corresponding to that semester and register for the semester. After the payment confirmation, the enrollment for the course units in the Learning Management System – University of Colombo will be conducted by the Course Coordinator.

Registration Procedure

6.1 Date of Registration

A person who has been selected as a postgraduate student shall be required to register for the current academic year to follow the particular MSc programme. The date of registration shall be specified by the Faculty.

6.2 Maintenance of Registration

Registration should be maintained in order to obtain the MSc degree by paying the specified fees.

6.3 Withdrawal of Registration

A student wishing to withdraw from the programme for which he/she is registered should do so in writing to the Dean, Faculty of Science. In all such withdrawals, adjustments of fees and refunds, if any, under special circumstances, shall be determined by the Faculty.

6.4 Postponement of Registration

A student who desires to postpone his/her registration should do so in writing to the Dean, Faculty of Science, giving reasons for and duration of postponement. Each such request shall be considered by the Faculty on the recommendation by the HDC and the relevant Department.

6.5 Cancellation of Registration

A registration may be cancelled by the Faculty on the recommendation by the HDC and the relevant Department for inadequate academic progress, violation of rules and regulations of the University, failure to pay prescribed fees by the due dates, or any other reasons as decided by the Faculty.

6.6 Leave of Absence

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

7. Detailed Syllabus of Course Units

Part I

Semester:	Semester 1
Course Code:	MEN 1121
Course Name:	Concepts and Applications in Conservation Biology
Credit Value:	2C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

Habitat destruction, degradation and fragmentation are at present imposing serious threats to the planet's biodiversity. Species are being pushed to the brink of extinction and damage to habitats are frequently irreversible. Conserving species and their habitats require a sound knowledge on the specific requirements of species and functioning of ecosystems, and the responses of both these components to human interventions. This course provides an introduction to biodiversity, classification of species, characterization of communities and ecosystems, and key ecological concepts. The course would demonstrate how tools and approaches based on ecological concepts are used to conserve species and sustainably manage natural and anthropogenic landscapes.

Intended Learning Outcomes

On the completion of the course the student will be able to:

ILO 1: Describe the different levels of biodiversity
ILO 2: Describe the structure and functioning of natural ecosystems
ILO 3: Explain fundamental concepts in ecology and their applications in conservation biology
ILO 4: Formulate and apply appropriate methodologies, tools and approaches for gathering ecological data for biodiversity monitoring and assessment
ILO 5: Analyze and interpret ecological data
ILO 6: Discuss anthropogenic influences on natural landscapes and species and means of mitigating them

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
	15	15	30	30

<u>Course Content</u>

Theory

- Introducing biodiversity – genes, species and ecosystems
- Ecosystem types – terrestrial, freshwater and marine ecosystems
- Ecological niche and resource partitioning
- Population ecology
- Species interactions
- Trophic relationships
- Ecological succession and habitat management
- Species assembly
- In-situ conservation & Ex-situ conservation
- Habitat management and ecological restoration
- Species re-introductions
- Modern applications in Conservation Biology
- Human impacts on biodiversity

<table>
<tr><td colspan="2">Practical
• Use of taxonomic keys for classification
• Techniques for monitoring biodiversity
• Techniques and tools for habitat and species management</td></tr>
<tr><td colspan="2">Teaching /Learning Activities
Online lessons and presentation, independent learning assignments and case studies</td></tr>
<tr><td colspan="2">Assessment Strategy (Allocation of marks/modes of assessment)</td></tr>
<tr><td>Theory 50%</td><td>Practical & Assignments 50%</td></tr>
<tr><td>Continuous Assessment: 50%
Presentations, interactive discussions, reports, papers, quizzes</td><td>Final Assessment: 50% Written examination</td></tr>
<tr><td colspan="2">Recommended Reading
• J. L. Chapman, M. J. Reiss (1998). Ecology: Principles and Applications. 2nd Edition. ISBN: 9780521588027
• Robert E. Ricklefs, Gary L. Miller (2000). Ecology. W.H. Freeman & Co., New York. P. 822 ISBN: 071672829X
• Martha J Groom, Gary K Meffe, C Ronald Carroll (2005). Principles of Conservation Biology, ISBN: 9780878935970 p. 793.</td></tr>
</table>

Semester:	Semester 1
Course Code:	MEN 1132
Course Name:	Sustainable Management of Natural Resources
Credit Value:	3C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

The course aims to impart basic knowledge on natural resources in Sri Lanka. This course will further provide introduction to the earth's natural resources and their management approaches. Renewable resources (soil, air, forests, water) and non-renewable resources (oil, metals and minerals) will be discussed in the course. Students will also gain knowledge focusing on natural resources of Sri Lanka and their management aspects. Further students will learn the interactions between natural - social processes and economic drivers and will gain knowledge on integrated approaches of natural resource management that explores the linkages among different stakeholders.

Intended Learning Outcomes

On the completion of the course unit student will be able to:

ILO 1: Explain renewable and nonrenewable resources in world and Sri Lankan aspects

ILO 2: Describe threats and exploitation issues related to Natural resources

ILO 3: Describe management and policy decisions in related to conservation and management of Natural Resources

ILO 4: Discuss the integrate approaches of sustainable management of natural resources with relevant to different stakeholders.

ILO 5: Discuss challenges of implementing sustainable development principles in real world scenarios

ILO 6: Critically assess existing economic and social issues, the limitations and providing sustainable solutions for the issues

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
	30	-	60	60

Course Content

Theory

- Renewable resources - soil, air, forests, water
- Non-renewable resources - oil, metals, and minerals
- Degradation of natural resources
- Concept of Sustainable Development
- Sustainable management of renewable and non-renewable resources
- Natural resources and sustainable management in Sri Lankan context

Teaching /Learning Activities:

Online lessons, practical sessions, independent learning assignments and case studies

Assessment Strategy: allocation of marks and assessment components			
Continuous Assessment: 50%	Final Assessment: 50%		
Details: quizzes %, midterm %, other % (specify) Assignments based on assignments and case studies	Theory (%) 30	Practical (%)	Other (%) 20
Recommended Reading: • Braimoh, Ademola K., Vlek, Paul (Eds.) 2004. Land Use and Soil Resources. Elsevier Press • Cambridge University Press (2009) Sustainable Natural Resource Management: For Scientists and			

Semester:	Semester 1
Course Code:	MEN 1123
Course Name:	Ecotoxicology and Environmental Health
Credit Value:	2C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

Accelerated industrial development in Sri Lanka and elsewhere has led to the deterioration of terrestrial and aquatic ecosystems. The harmful effluents released into natural ecosystems often induce toxic impacts that threaten the well-being of biota as well as impose health risks to human beings. This has created a need for increased knowledge and training in ecotoxicology as well as in protocols and indicators used for monitoring environmental health. This course will provide knowledge relating to the fundamental concepts in ecotoxicology linked to the absorption, availability, storage and distribution of pollutants in abiotic and biotic environmental components, the manifested lethal and sub-lethal impacts, and ramifications of pollutants at population, community and ecosystem levels. Some knowledge pertaining to the formulation and use of safety standards, methods available for mitigating pollution, and on the use of indicators for monitoring environmental health will also be provided.

Intended Learning Outcomes

On the completion of the course the student will be able to:
ILO 1: Explain the fundamental concepts and terms related to ecotoxicology
ILO 2: Discuss the fate of chemicals in the environment and in organisms
ILO 3: Describe lethal and sub-lethal endpoints of toxicity
ILO 4: Apply concepts and techniques for measuring and monitoring environment contaminants and their impacts on biota
ILO 5: To design and use methods for monitoring environmental health

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assignments
	30	20	50	50

Course Content

Theory

- Transition from toxicology to ecotoxicology
- Terms and concepts used in ecotoxicology
- Classification and sources of common, water, air and soil contaminants
- Environmental fate of contaminants (Storage, metabolism and excretion)
- Overview of elicited effects
- Dose-response curves
- Modes of action of the pollutants including physiological, immunological, developmental, behavioural and genetic responses and how they can be used for monitoring.
- Bioaccumulation, biotransformation, and biomagnification), resistance and resilience
- Bioindicators
- Field constraints
- Safety Regulations and other measures
- Case studies

Practical

Designing and monitoring toxic impacts through empirical trials and in the field, Assignments on topics related to ecotoxicology and environmental monitoring

Teaching /Learning Activities

Online lessons, presentations, report writing, independent learning assignments and case studies

Assessment Strategy (Allocation of marks/modes of assessment)

Theory: 50%	Practical & Assignments: 50%
Continuous Assessment: 50% Presentations, interactive discussions, reports, papers, quizzes	Final Assessment: 50% Written examination

Recommended Reading

- Walker, C.H., Sibly, R.M., Peakall, D.B., Hopkin, Steve P. (1996). Principles of Ecotoxicology. Published by CRC Press 1996-04-11. ISBN 10: 0748402217.

Semester:	Semester I
Course Code:	MEN 1134
Course Name:	Natural Disasters and Disaster Risk Management
Credit Value:	3C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

No place on the earth is safe from natural hazards. Yet vulnerability and exposure transform hazards into disasters. In the recent past various human activities and climate change have contributed to the overall increase in such events. Managing natural hazards is becoming increasingly complex due to a combination of factors, including population growth and unsustainable development. Many natural disasters can and do have severe negative socio-political, environmental, and economic impacts. This course will present the students with opportunities to gain theoretical and practical (field and laboratory) knowledge in disaster management and reducing risks.

Intended Learning Outcomes

On the completion of the course unit student will be able to:
ILO 1: To demonstrate knowledge different types of natural hazards in the world
ILO 2: To discuss the fundamentals of hazards, disasters and associated natural/social phenomena.
ILO 3: To analyse the socio-economic, health and environmental impacts of disasters.
ILO 4: To explain the disaster management theories and the cycle
ILO 5: To analyse the existing global frameworks of disaster management and risk reduction

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
	30	-	60	60

Course Content

Theory

- Definitions and analysis of natural hazards and disasters
- The unique geophysical, atmospheric, and human variables of natural disasters.
- The causes and impacts of natural hazards and disasters.
- Patterns of occurrence, prediction, and our adaption to geophysical and atmospheric threats.
- Specific hazards including earthquakes, volcanoes, tornadoes, hurricanes, tsunamis, tidal surges, coastal erosion, floods, landslides, and wildfires.
- Principles of Disaster Management and Management Frameworks.
- Assessment of Disaster Vulnerability of a location and vulnerable groups.
- Preparedness and Mitigation measures for various Disasters.
- Impacts on Environment, Health and Sanitation, Social and economic structure, Information systems and decision-making tools.
- Voluntary Agencies and Community participation at various stages of disaster.

<table>
<tr><td colspan="4">Practical
• Use of geographic tools to analyze natural hazards and disasters
• Development of risk assessment plans</td></tr>
<tr><td colspan="4">Teaching /Learning Activities:
Online lessons, practical sessions, independent learning assignments and case studies</td></tr>
<tr><td colspan="4">Assessment Strategy: allocation of marks and assessment components</td></tr>
<tr><td>Continuous Assessment: 50 %</td><td colspan="3">Final Assessment: 50%</td></tr>
<tr><td>Details: quizzes %, mid-term %, other % (specify)
Assignments based on field visits/ practicals</td><td>Theory (%)
30</td><td>Practical (%)
20</td><td>Other (%) (specify)</td></tr>
<tr><td colspan="4">Recommended Reading:
• Coppola, Damon P. Introduction to international disaster management. Elsevier, 2006.</td></tr>
</table>

Semester:	Semester I
Course Code:	MEN 1135
Course Name:	Environmental Certification and Assessments
Credit Value:	3C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

This course provides a comprehensive overview of the major topic areas in environmental certification and assessment. Environmental Management Systems (EMS) including ISO 14001:2015, benefits and limitations of introducing a formal EMS such as ISO 14001/BS 8555/EMAS into the workplace, Identify key members of the ISO 14000 family of standards and their purpose. This course also provides covers the application of EMS in the workplace, linking these to broader environmental issues, including sustainable development. In the context of environmental assessment, increase in large-scale developmental projects threatening natural ecosystems and species, there is an urgent need to implement proper screening and assessment protocols such as IEE/EIA and SEA that would result in mitigating adverse environmental impacts.

Intended Learning Outcomes

On the completion of the course unit student will be able to:
ILO 1: Identify the requirements of, and work within, an environmental management system whilst contributing to continual improvement.
ILO 2: Underline the environmental emergency planning.
ILO 3: Explain the sources of noise, air, and water pollution; and suggest suitable control measures.
ILO 4: Discuss the issues associated with waste and support responsible waste management.
ILO 5: Explain the benefits and limitations of a range of energy sources and recommend appropriate measures to increase energy efficiency. ILO 6: Explain the process of EIA/IEE/SEA

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
	30	-	60	60

Course Content

Theory

- Environment Management systems and certification.
- Auditing and Monitoring Tools: Introduction to Green accounting and auditing.
- Monitoring and use of indicators.
- Sustainable Consumption and Production
- Cleaner Production and its application in industry (including assignments/case studies)
- Branding and greening philosophy and practice, green reporting, green procurements, and other sustainability tools, covered with case studies
- Environmental Screening and Environmental Impact Assessments: Protocols and practices
- Strategic Environmental Assessment
- Case studies

<table>
<tr><td colspan="4">Practical:
• Case study assessment/ EIA/SEA</td></tr>
<tr><td colspan="4">Teaching /Learning Activities:
Online lessons, practical sessions, independent learning assignments and case studies</td></tr>
<tr><td colspan="4">Assessment Strategy: allocation of marks and assessment components</td></tr>
<tr><td>Continuous Assessment: 30%</td><td colspan="3">Final Assessment: 70%</td></tr>
<tr><td>Details: quizzes %, mid-term %, other % (specify)
Assignments based on field visits/ practicals</td><td>Theory (%)
70</td><td>Practical (%)</td><td>Other(%)
(specify)</td></tr>
<tr><td colspan="4">Recommended Reading:
• Kuhre, W. L. (2018). ISO 14001 Certification: Environmental Management System. Prentice Hall.
• Hortensius, D., & Barthel, M. (2017). Beyond 14001: An introduction to the ISO 14000 series. In ISO 14001 and Beyond (pp. 19-44). Routledge.</td></tr>
</table>

Semester:	Semester II
Course Code:	MEN 1221
Course Name:	An Introduction to Environmental Economics
Credit Value:	2C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

The aim of this course is to provide the basic economic theories and the inter-dependencies between the environment and the economy. The course covers the application of economics models and approaches to solve environmental problems.

Intended Learning Outcomes

On the completion of the course the student will be able to:
ILO 1: Comprehend the basics of economics and environmental economics
ILO 2: Critically analyse economic models to measure and solve environmental issue
ILO 3: Explain key economic issues in the analysis of controlling environmental degradation and externalities
ILO 4: Discuss current economic issues in the context of global and national level.

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
	30	-	20	50

Course Content

Theory

- Introduction environment and economy
- Benefits and costs
- supply and demand
- Externalities and public goods
- Environmental quality and economics
- Environmental Valuation
- Travel Cost Method
- Environmental Accounting

Teaching /Learning Activities:

Online lessons, practical sessions, independent learning assignments and case studies

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 50%	Final Assessment: 50%		
Details: quizzes %, mid-term %, other % (specify) Assignments based on field visits/ practicals and case studies	Theory (%) 30	Practical (%)	Other (%) (specify) 20

Recommended Reading:

- Rao M. N. and H. V. N. Rao (2003) - Air pollution McGraw-Hill; UNEP (2005) One planet – many people: Atlas of our changing environment, UNEP, Nairobi, Kenya; Yaron B, R. Calve, and Prost (1996) Soil Pollution: Process and Dynamics Springer.

Semester:	Semester II
Course Code:	MEN 1232
Course Name:	Environmental Laws, Public Policies and Legislation
Credit Value:	3C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

To provide a comprehensive knowledge of the environmental laws, policies and legislations relevant to environmental issues and principal legislation to protect and conserve the environment. This course introduces the concepts of environment related public policy and how social movements and collective protest have influenced policies including theoretical approaches and empirical methods. This course also provides an overview of the role of social movement in shaping public policy. It also discusses the environment, social and policy conflicts, loopholes in environmental laws and legislations. Case studies related to environment based social and political movements of the world and in Sri Lanka will be discussed. Selected case studies from developed and developing countries on the environmental laws, policies and legislations will discuss through role play.

Intended Learning Outcomes

On the completion of the course unit student will be able to:

ILO 1: To develop critical thinking and analytical ability about environmental laws, policies, and legislations.

ILO 2: Distinguish laws, policies and legislation and their implementation process.

ILO 3: Comprehend the policy cycle and stages and the decision-making processes involving the national and sub national level environmental policies and legislation.

ILO 4: Identify the role of existing environmental laws, policies, and legislations in proper environmental management.

ILO 5: Evaluate the institutional framework for environmental laws, legislations and policy formulation and identify loopholes and limitations of current environmental laws, policies, and legislation in Sri Lanka.

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
	45		75	30

Course Content

Theory

- Definition of Policy and Policy formulation
- Vision and Mission statements
- National Environmental Policy
- Analysis of available laws, policies and legislation in areas such as wildlife, forest, water, industry, agriculture and land use, and their impacts and effect on sustainable development with special reference to financial policy implications on environment
- Major legislation in the country and their implications in ensuring a "managed" environment in the country
- The constitution of Sri Lanka, 13th amendment, and Local Government Act,
- National Environmental Act and other related Acts
- Administration of the environment at National, Provincial and Local level

Teaching /Learning Activities:

Online lessons, practical sessions, independent learning assignments and case studies

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 50 %	Final Assessment: 50%		
Details: quizzes %, mid-term %, other % (specify) Assignments based on case studies	Theory (%) 50	Practical (%)	Other (%) (specify)

Recommended Reading:

- Gomez, M., (Ed.). (2009). Judges & Environmental Law: A Handbook for the Sri Lankan Judiciary. Environmental Foundation
- John Hannigan (1996), Environmental Sociology
- Other reading material provided by the lecturer

Semester:	Semester II
Course Code:	MEN 1223
Course Name:	Climate Change
Credit Value:	2C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

The aim of this course is to provide information on the causes and consequences of anthropogenic climate change as a major environmental issue. The course content will also include various impacts of climate change and remedial measures taken at national and international level

Intended Learning Outcomes

On the completion of the course unit student will be able to:

ILO 1: Explain the causes and consequences of climate change as a major environmental issue

ILO 2: Discuss the impacts of climate change and specific remedial measures

ILO 3: Evaluate the available measures for addressing climate change at national and global level

ILO 4: Review mechanisms of international cooperation for dealing with climate change

Time allocation (Hourly Breakdown)	Theory	Assignments	Independent Learning	Assessment
	30	25	45	

Course Content

Theory

- Earth's climate system and anthropogenic influence
- Pre-industrial and current global carbon cycle and implications on climate change
- Global and local impacts of climate change and response
- Major international treaties and implementation of those at national level
- National policies and measures in addressing climate change

Teaching /Learning Activities:

Online lessons, practical sessions, independent learning assignments and case studies

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 30%	Final Assessment: 70%		
Details: quizzes %, mid-term %, other % (specify) Assignments based on field visits/ practicals	Theory (%) 70	Practical (%)	Other (%) (specify) Assignments/Case studies 30

Recommended Reading:

- Cameron, P.D., Mu, X., Roeben, V., Bekker, P., (2021). The Global Energy Transition: Law, Policy and Economics foe Energy in the 21st Century
- Further reading material will be provided by the instructor

Semester:	Semester II
Course Code:	MEN 1224
Course Name:	Pollution, Prevention and Management
Credit Value:	2C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

To provide knowledge on various causes and pathways of environment pollution and their effects on human health and the environment. This course also provides the scientific and technical knowledge in environmental pollution, prevention/mitigation technologies and management.

Intended Learning Outcomes

On the completion of the course the student will be able to:

ILO 1: Describe the basic concepts of pollution and its effects on human and ecosystem health.

ILO 2: Identify major air pollutants, their sources, chemical transformations in the environment and impacts.

ILO 3: Apply different prevention/mitigatory measures/technologies and management practices for environmental pollution issues.

Time allocation (Hourly Breakdown)	Theory 30	Practical	Independent Learning 60	Assessment 60

Course Content

Theory

- Pollution, sources, impacts on health and ecosystems, control measures, management aspects.
- Policies on air, water, soil, solid and hazardous waste management
- Nature of pollutants and their source, distribution, and impact in the environment
- Air, soil, and water pollution
- Pollution prevention/mitigatory measures/technologies and management practices
- Exposure to humans, and effects on human health
- Effects on wild- and domesticated animals
- Case studies from around the world

Teaching /Learning Activities:

Online lessons, independent learning assignments and case studies

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 30%	Final Assessment: 70%		
Details: quizzes %, mid-term %, other % (specify) Assignments based on field visits/ case studies	Theory (%) 70	Practical (%)	Other (%) (specify)

Recommended Reading:

- Peirce, J. J., Vesilind, P. A., & Weiner, R. (1998). *Environmental pollution and control*. Butterworth Heinemann.
- Hirschhorn, J. S., & Oldenburg, K. V. (1990). Prosperity without pollution: The prevention strategy for industry and consumers.

Semester:	Semester II
Course Code:	MEN 1235
Course Name:	Techniques for environmental data collection and analysis, and scientific reporting
Credit Value:	3C
Core/Optional:	Optional
Pre-requisites:	None

Course Aim

This course provides the knowledge obtain hands on experience in field techniques, combined with laboratory experiments. The course will provide an opportunity for students to obtain hands on experience in field techniques and laboratory experiments. The students will gain knowledge on the different techniques available for environmental data collection, including GIS and other current applications, both in natural and anthropogenic settings. Students would have the opportunity of participating in field workshops to protected areas, conduct laboratory testing and carry out social surveys to gather data in a scientific manner. The students would be taught how to test hypotheses, analyse, and interpret the data using statistical software.

Intended Learning Outcomes

On the completion of the course the student will be able to:
ILO 1: Demonstrate the use of different field and laboratory techniques used for environmental studies
ILO 2: Design and execute field surveys
ILO 3: Analyse and interpret data
ILO 4 Prepare scientific reports and presentations
ILO 5: Demonstrate teamwork, problem solving skills and communication skills

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assignments
		90	30	30

Course Content:

- Formulating and testing hypotheses
- Designing and conducting field surveys
- Designing and conducting laboratory trials
- Measuring and recording environmental data
- Data analysis and interpretation (including statistics)
- Maintaining field records
- Field and lab safety
- Environmental reporting (presentations, reports, articles etc.)

Teaching /Learning Activities:

Online lessons, interactive discussion, demonstrations, data analysis, independent learning assignments and case studies.

<table>
<tr><td colspan="4">Assessment Strategy: allocation of marks and assessment components</td></tr>
<tr><td>Continuous Assessment: 50%</td><td colspan="3">Final Assessment: 50%</td></tr>
<tr><td>Details: quizzes %, mid-term %, other % (specify)
Assignments based on field visits/ practicals</td><td>Theory (%)</td><td>Practical (%)
50</td><td>Other (%) (specify)

Continuous assessments
50</td></tr>
<tr><td colspan="4">Recommended Reading:
• Wratten, S.D. and Fry, G.L.A. 1980. Field and laboratory exercises in ecology, Edward Arnold. Page 41-43.</td></tr>
</table>

Semester:	Semester II
Course Code:	MEN 1236
Course Name:	Field techniques, data analysis and scientific reporting
Credit Value:	3C
Core/Optional:	Optional
Pre-requisites:	None

Course Aim

This course provides the knowledge needed to formulate a scientific study to investigate specific environmental issues. These may include social surveys or ecological issues. The course would include experimental design, formulating and testing hypotheses, data collection, analysis and interpretation and reporting in relation to different types of environmental problems. The use of different field techniques will be taught through demonstrations. The course will also include online sessions where students would be able to conduct data analysis and interpret data in an interactive manner.

Intended Learning Outcomes

On the completion of the course the student will be able to:
ILO 1**:** Formulate hypothesis for identified environmental issues
ILO 2: Design protocols for testing these hypothesis
ILO 3: Describe field and laboratory equipment used for gathering environmental data
ILO 4: Analyse and interpret environmental data
ILO 5: Prepare scientific reports and presentations

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assignments
		90	30	30

Course Content:

- Formulating and testing hypotheses
- Designing and conducting field surveys
- Designing laboratory trials
- Techniques available for gathering environmental data
- Data analysis and interpretation (including statistics)
- Environmental reporting (presentations, reports, articles etc.)

Teaching /Learning Activities:

Online lessons, interactive discussion, demonstrations, data analysis, independent learning assignments and case studies

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 50%	Final Assessment: 50%

Details: quizzes %, mid-term %, other % (specify) Assignments	Theory (%)	Practical (%) 50	Other (%) (specify) Continuous assessments 50

Recommended Reading:

- Wratten, S.D. and Fry, G.L.A. 1980. Field and laboratory exercises in ecology, Edward Arnold. Page 41-43.

Part II

Semester:	Part II
Course Code:	MEN 2051
Course Name:	Independent study
Credit Value:	5C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

This course provides an intellectual stimulus and develop deeper knowledge, understanding, capabilities and attitudes through scientific reading and writing skills of the student. Further the course will allow students to pursue projects that do not fit within the framework of regular course offering and the course will develop the critical thinking and ability to work independently in the project of a special nature.

Intended Learning Outcomes

On the completion of the course unit student will be able to:

ILO 1: Identify a knowledge gap related to the students' field of study

ILO 2: Demonstrate the characteristics of self-directed learners and independent researchers

ILO 3: Collect appropriate data, interpret, and critique them to develop reflective practice

ILO 4: Develop capability to integrate knowledge critically and systematically

ILO 5: Develop a consciousness of the ethical aspects of research work

ILO 6: Develop capabilities to use a holistic view to critically, independently, and inventively identify, formulate and deal with intricate issues and explore new avenues

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
		-	50	50

Course Content

- Proposal writing
- Data collection and analysis
- Report writing
- Presentation

Teaching /Learning Activities:

Independent learning under minimum supervision

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 35%	Final Assessment: 65%

Details: quizzes %, mid-term %, other % (specify) Assignments based on field visits/ practicals	Theory (%)	Practical (%) 100	Other (%) (specify) Presentation 35

Recommended Reading:

- Coordinator will guide students towards identifying appropriate reading materials based on the selected topic.

Part III

Semester:	Part III
Course Code:	MEN 3051
Course Name:	Research Methodology
Credit Value:	5C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

The aim of this course is to provide the basic understanding of research methods in the field of environmental sciences and further to strengthen the communication and presentation skills of students. Also, the students will be able to enhance their knowledge on developing hypothesis, scientific methods, field and experimental designs, statistical analysis, and scientific writing.

Intended Learning Outcomes

On the completion of the course unit student will be able to:
ILO 1: Acquire basic skills of scientific research and different research methodologies
ILO 2: Identify the research question, hypothesis and research objectives
ILO 3: Critically evaluate scientific questions and evidence and literature
ILO 4: Interpret results of statistical tests in biologically relevant terms.
ILO 5: Evaluate the validity of experiments and data analysis in the scientific literature
ILO 6: Review and analyze scientific literature and acquire skills on scientific presentation

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
		-	50	50

Course Content

- Scientific method
- planning and executing research projects
- Hypothesis developing
- conducting a literature review
- Developing research questions
- Identify the research problem
- Data analysis - statistic, GIS and remote sensing Scientific reporting

Teaching /Learning Activities:

Online lessons, independent learning assignments

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment:	Final Assessment:
100%	

Details: quizzes %, mid-term %, other % (specify) Assignments based on reading articles and writing abstracts, citation, and reference.	Theory (%)	Practical (%)	Other (%) (specify)

Recommended Reading:

- Leki, I. (1998). Academic writing: Exploring processes and strategies (2nd ed.). Cambridge: Cambridge University Press.

Semester:	Part III
Course Code:	MEN 3052
Course Name:	Seminar and Literature Review
Credit Value:	5C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

This course focuses primarily on the development of students' skills in scientific writing and to define different environmental topics and develop the analytical, quantitative, logical thinking, communication and presentation skills of students. Students will be exposed to different styles of referencing/citing and writing practices with the focus to academic writing, as well as reading texts of their interests and those pertaining to research. Major course activities include reading articles, class discussion, writing proposals/abstracts, peer review of students' writing.

Intended Learning Outcomes

On the completion of the course unit student will be able to:

ILO 1: Apply writing skills to formulate research questions/objectives/proposal and thesis writing.

ILO 2: Summarize article/text to express their thoughts and to comment on the texts they have read

ILO 3: Review and analyze scientific papers and make in-class presentations.

ILO 4: Lead discussions on scientific literature by scientists/researchers in different environmental areas

Time allocation (Hourly Breakdown)	Theory 15	Practical	Independent Learning 20	Assessment 15

Course Content

Theory

- Introduction to the concept and expectation of a seminar
- Reviewing and leading discussions on selected research papers by eminent researchers/scientists in specific environmental areas
- What is writing? Language and style in academic writing
- Generating ideas: Pre-writing activities
- Reading to write: Finding main and supporting ideas
- Introduction to citation, reading techniques

Teaching /Learning Activities:

Online lessons, independent learning assignments

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 100%	Final Assessment:

Details: quizzes %, mid-term %, other % (specify) Assignments based on reading articles and writing abstracts, citation and reference.	Theory	Practical (%)	Other (%) (specify)

Recommended Reading:

- Leki, I. (1998). *Academic writing: Exploring processes and strategies* (2nd ed.). Cambridge: Cambridge University Press.

Semester:	Part III
Course Code:	MEN 3203
Course Name:	Research Project
Credit Value:	20C
Core/Optional:	Core
Pre-requisites:	None

Course Aim

This course provides an intellectual stimulus and develop deeper knowledge, understanding, capabilities and attitudes thorough exposure to the exciting field of scientific research. Students will learn through their success and more through failures the way in which science develops. The thesis will emphasis on the technical and scientific aspects of the subject matter and develop deeper knowledge, understanding, capabilities and attitudes. Students will further be capable of conducting research work and writing research publication.

Intended Learning Outcomes

On the completion of the course unit student will be able to:

ILO 1: Identify a knowledge gap related to the students' field of study

ILO 2: Develop a research question

ILO 3: Collect appropriate data, interpret, and critique them to develop reflective practice of evaluating the methodology and the design of the project

ILO 4: Communicate research findings in oral and written media

ILO 5: Develop appreciation for the process of scientific research

ILO 6: Develop capability to integrate knowledge critically and systematically

ILO 7: Develop a consciousness of the ethical aspects of research work

ILO 8: Develop capabilities to use a holistic view to critically, independently, and inventively identify, formulate and deal with intricate issues and explore new avenues

Time allocation (Hourly Breakdown)	Theory	Practical	Independent Learning	Assessment
		-	20	50

Course Content:

- Proposal writing
- Sampling/laboratory analysis/Data collection
- Thesis writing
- Presentation
- Viva

Teaching /Learning Activities:

Independent learning under the guidance of a supervisor

Assessment Strategy: allocation of marks and assessment components

Continuous Assessment: 35%	Final Assessment: 65%

Details: quizzes %, mid-term %, other % (specify) Assignments based on field visits/ practicals	Theory (%)	Practical (%) 100	Other (%) (specify) Viva 15% Presentation 20%

Recommended Reading:

- Supervisors will guide students towards identifying appropriate reading materials based on the selected topic.

7. Programme Learning Outcomes (PLOs)

Categories of Learning Outcomes (SLQF)	Knowladge		Skills						Attitudes, Values, Professionalism & Vision for life			mind set & paradigm
	Subject / Theoretical Knowledge	Practical Knowledge and Application	Communication	Teamwork and Leadership	Creativity and Problem Solving	Managerial and Entrepreneurship	Information Usage and Management	Networking and Social Skills	Adaptability and Flexibility	Attitudes, Values and Professionalism	Vision for Life	Updating Self / Lifelong Learning
Concepts and Applications in Conservation Biology	H	H	L	M	L	L	L	L	L	M	H	H
Sustainable Management of Natural Resources	H	H	M	M	H	L	H	L	H	H	H	M
Ecotoxicology and Environmental Health	H	H	L	M	L	L	M	L	L	M	H	H
Natural Disasters and Disaster Risk Management	H	H	H	H	H	M	M	M	H	H	H	H
An introduction to Environmental Economics	H	H	M	M	M	M	H	M	L	H	M	H
Environmental Certification and Assessment Protocols	H	H	H	M	L	M	M	L	L	H	H	H
Environmental Laws, Public Policies and Legislation	H	H	H	M	L	H	H	H	L	H	H	H
Climate Change	H	H	H	M	M	L	H	L	M	H	L	H
Pollution Prevention and Management	H	H	H	M	M	L	H	L	M	H	H	M
Current topics in Environmental Science	M	H	M	M	H	M	H	H	H	H	H	H
Field methods, data collection and analysis, & ..	H	H	H	H	H	M	M	H	H	H	H	H
Field methods, data collection and analysis & ..	H	H	H	H	H	M	M	H	H	H	H	H
Independent Study	H	H	H	H	H	M	M	H	H	H	H	H
Research Methodology	H	H	H	H	H	L	M	H	H	H	H	H
Seminar and Literature Review	H	H	H	H	H	L	M	H	H	H	H	H
Research Project	H	H	H	H	H	M	M	H	H	H	H	H

8. Degree Awarding Criteria

8.1 Award of Degree of Master of Science

A student who obtains a GPA of **3.00 or above for Part II** may be eligible for the award of the Degree of Master of Science, provided the student fulfills other requirements as prescribed.

No student shall be entitled to the award of the Degree of Master of Science unless he/she has satisfied all the prescribed requirements and he/she has supplicated for the award of the Master's Degree at the relevant Convocation of the University of Colombo.

8.2 Award of Postgraduate Diploma

Students who obtain a GPA of **2.70 or above for Part I** may be eligible for the award of the Postgraduate Diploma, where applicable, and upon request, provided the student fulfills other requirements as prescribed.

8.3 Award of Master of Science (Research)

Students who obtain a GPA of **3.00 or above for Part** III of the programme may be eligible for the award of the Degree of Master of Science (Research), provided the students fulfill other requirements as prescribed.

A student who fails to achieve a GPA of 3.00 or above for Part III shall be eligible to be awarded the Degree of Master of Science, upon request, provided the student fulfills other requirements as prescribed.

9. Grading System and Calculation of Grade Point Average (GPA)

The Grade Point Average (GPA) shall be computed using grades assigned for all papers in Parts I and for Part II, and where applicable for Part III. The minimum grade a student should achieve to pass a paper/mini project/research component is **B-**.

The Grade Points will be assigned using the following table.

Marks Range	Grade	Grade Point
85 – 100	A+	4.00
70 – 84	A	4.00
65 – 69	A-	3.70
60 – 64	B+	3.30
55 – 59	B	3.00
50 – 54	B-	2.70
45 – 49	C+	2.30
40 – 44	C	2.00
35 – 39	C-	1.70
30 – 34	D+	1.00
25 – 29	D	1.00
00 – 24	E	0.00

If the Grade Point Average (GPA) of a student is required for any purpose, it shall be calculated using the following equation:

$GPA = \sum w_i g_i / \sum w_i$

Where, w_i = number of credit units for the i^{th} and g_i = grade points for the courses

The GPA is rounded to the second decimal place.

Any student who has not appeared for the evaluation of a course may be assigned a GPA of 0.00 Value for such for the purpose of calculating his/her GPA.

10. Student Services (Library Facilities, Student Affair Divisions)

The Science Library is available for physical as well as virtual access and the library is open every weekday except for holidays.

Please visit https://science.cmb.ac.lk/ for further information including membership registration, e-resources, and other facilities issued by the library.

Annexures:

Student Request Form MSc/PG Diploma in Environmental Science

<table>
<tr><td rowspan="2">Name of student</td><td>Reg. No.</td><td>Signature</td></tr>
<tr><td>Email:</td><td>Mobile:</td></tr>
<tr><td colspan="2">Name of Programme</td><td>Department</td></tr>
<tr><td>Date of Reg.</td><td>Reg. No.</td><td>Date of Request:</td></tr>
<tr><td colspan="3">Nature of Request (Tick as appropriate)

Observation of Coordinator
<table><tr><td></td><td>Deferment of registration</td></tr><tr><td></td><td>Medical (for examinations)
Course: ……..</td></tr><tr><td></td><td>Overseas Leave</td></tr><tr><td></td><td>Repeat Examination
Course: ……..</td></tr><tr><td></td><td>Fallback option
PG Dip.: ……
MSc: ……</td></tr><tr><td></td><td>Extension (beyond the permitted period)
Period: ……..</td></tr><tr><td></td><td>Other</td></tr></table></td></tr>
<tr><td colspan="2">Name of Coordinator</td><td>Name of Head</td></tr>
<tr><td colspan="2">Signature:

Date:</td><td>Signature:

Date:</td></tr>
</table>

Faculty of Science
University of Colombo

APPLICATION FOR FALLBACK OPTION
POSTGRADUATE DIPLOMA

To: DR/SAR/AR Examination

1.	Name of the Student		
2.	Name of the Postgraduate Degree Programme		
3.	Department		
4.	Registration No.		
5.	Date of Registration		
6.	Email		
7.	Contact No.	Mobile:	Home:
8.	I hereby request your permission to grant me the Postgraduate Diploma in …….. …….. ……. Signature of the Applicant Date		
9.	Observations of the Coordinator		
10.	Name of the Coordinator:		
		……. ……. Signature: Date	
11.	Recommendation of the Head of the Department Recommended/Not Recommended	……. ……. Signature: Date	
12.	Recommendation of the Dean/ Faculty of Science Recommended/Not Recommended	……. ……. Signature: Date	

Re-scrutiny Form

Request for re-scrutiny of making of answer scripts

Registration No.		
Academic Year		Semester:

Course Code & Title	**Present Grade Obtained**	**Expected Grade**	**Justification**

…… ……..

Candidate's Signature Date

For office use only

Subject Code	Before Re-scrutiny		After Re-scrutiny		Comments
	Marks	Grade	Marks	Grade	

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Examiner(s) Signature Date

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Programme Coordinator Signature Date