



UNIVERSITY  
of  
TECHNOLOGY,  
MAURITIUS

**School of Health Sciences**  
in collaboration with  
**School of Sustainable Development And Tourism**

**BSc. (Hons) Environmental and Public  
Health**

PROGRAMME DOCUMENT

DRAFT VERSION 2.0

*BEPH2.0*

February 2016

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## **BSc. ( Hons) Environmental and Public Health**

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### **A. Programme Information**

The environmental conditions within which mother earth is evolving have witnessed lot of dramatic changes over the last two decades. Such changes have accentuated themselves over the last decade whereby the community, government, industry and commercial organisations have been compelled to find new ways of coping with the changes that have impacted on them. One of the major areas having been directly affected by changes in environmental conditions has been the health issues that have been associated with climate change, leading to new trends in vector-borne diseases. While the world over is already concentrating its efforts towards the assessment and management of environmental influences on human health, Mauritius, as a small island state economy cannot remain indifferent. The need for understanding, assessing and managing outbreaks of water-borne, food-borne diseases and also urban and industrial air quality and pollution has become a major impediment for a nation striving for sustainable development.

This programme pertaining to environmental and public health will enable those who wish to join the field or who are already practicing in the field of environmental health and/or sanitary science to learn the technical, technological, managerial and communicative skills necessary to intervene in dealing with the stressors impacting on our environment and health.

### **B. Programme Aims**

This course in Environmental and Public Health aims at those working in the practice setting or those wishing to enter a career in environmental health, whether in the public or private sectors. It provides students with the skills required to deal with public health and hygiene and provides them with the necessary know-how to preserve and promote the health of both the individual and the community. It also enables participants to identify and deal with the prevention of communicable and non communicable diseases, provides useful insights about environmental factors affecting the community, and the legal aspects and managerial framework related to environmental and public health practice. Although the programme is mostly geared towards environmental & health aspects, it also provides for an interdisciplinary field of study which offers the participants with general skills in management, relevant legal aspects and also communication and financial aspects. The wide scope of Environmental and Public Health and the corresponding breadth of the degree reflect rapid technological progress. Alongside, students will also develop a broad understanding of the social, political and economic context within which environmental health decisions are made.

### **C. Programme Objectives**

The programme develops the intellectual and analytical skills that prospective or already practicing environmental health practitioners need in the 21st century. Thus, this course will enable students to:

- Identify social and scientific factors which affect environmental and public health.
- Identify and manage the various existing health hazards present in the environment affecting the community as a whole.
- Be aware of the legal aspects, organisation and managerial frameworks governing public health practices in Mauritius.
- Understand sustainability issues, inter-disciplinary approaches and partnership approach to working in environmental health.
- Gain basic skills in management, accounting , procurement and communication.

Prospective graduates will have successful careers in environmental consultancy, health and safety

management, food industry, public water utilities and waste management.

## **PART I - Regulations**

### **D. General Entry Requirements**

As per UTM'S Admissions Regulations, and 'Admission to Programmes of Study at Degree Level'.

### **E. Programme Entry Requirements**

Either (i) Cambridge School Certificate with credits in 5 subjects including English and Mathematics.  
(Preference will be given to candidates having credits in science subjects)  
(ii) at least 3 years relevant work experience in the industry  
or  
(ii) Cambridge Higher School Certificate with at least 2 'A' level subjects.

Equivalent qualification will be acceptable.

#### **Programme Entry Points:**

Candidates holding a Diploma in Sanitary Science, Health Sciences or equivalent can enter the programme either in Semester 2 of Year 2 (Full time) or in Semester 1 of Year 3(Part time).

Students entering the programme in Semester 2 Year 2 (Full time) will need to have an SPA of  $\geq 40$  to proceed to Year 3 of the programme. Where the SPA is  $< 40$ , students will need to repeat Semester 2 Year 2 (Full Time) as and when offered.

### **F. Programme Mode and Duration**

Full Time: 3 Years

Part Time: 4 years

Each academic year includes two semesters and each semester is comprised of activities of teaching and learning strategies.

#### **Programme Exit Points**

Students may exceptionally be allowed to exit the programme as follows:

- (i) A Certificate in Environmental and Public Health (with a minimum credit requirement of 33)
  - End of Semester 2 Year 1(FT).
  - End of Semester 1 Year 2 (PT)
  
- (ii) A Diploma Environmental and Public Health (with a minimum credit requirement of 68)
  - End of Semester 2 Year 2 (FT)
  - End of Semester 1 Year 3 (PT)

### **G. Teaching and Learning Strategies**

The programme will employ a wide variety of teaching methods, including lectures, individual or group projects, presentations, workshops, Employability Skills Development (ESD), field visits, work placement and talks by guest speakers.

Self-learning will be the key feature of the programme, enabling students to explore, investigate and

research into the various topics, interact with practitioners, and work in teams on projects. Through-out the course, Case-Studies will be used so as to familiarise the students with real-life situations and to learn how to cope with these.

The University recognises the importance of practical experience and its value to employers. Work Placement holds a significant place in the degree as it allows students to obtain first-hand exposure before taking up employment after graduation

## **H. Student Support and Guidance**

In addition to traditional lectures, group or individual tutorials, seminars and workshops are arranged for students.

## **I. Attendance Requirements**

As per UTM's Regulations and Policy.

## **J. Credit System**

The modules carry 3 or 4 credits as per the programme structure.

Professional placement - 6 credits

Dissertation- 9 credits

1 credit = 15 contact hours

Total number of credits for the programme = 106

## **K. Student Progress and Assessment**

For the award of the Diploma/Degree, all modules must be passed overall with passes in the examinations, coursework and other forms of assessment.

The modules will be assessed as follows (unless otherwise specified):

- written examinations of 2-hours' duration for modules carrying 3 credits and of 3-hours' duration for modules carrying 4 credits and contributing 70% of the total marks
- continuous assessment carrying up to 30% of total marks. Continuous assessment can be based on seminars and/or assignments or class tests.
- All modules are normally assessed over 100 marks, except for project dissertation where it shall be as specified in the programme.
- Research methods for Environmental and Health Sciences will be assessed by 100% coursework as follows: Mini-project based assignments involving fieldwork and presentation.
- Professional (work) Placement will be assessed through a portfolio which will carry a total of 100 marks and work placement supervisor's evaluation form (Satisfactory (S) or Unsatisfactory (U) grade). Students will be eligible for the assessment of Portfolio only where satisfactory grade is obtained.
- The overall pass mark for a module shall be 40%.
- ESD Component will be assessed as per ESD Guidelines.

## Grading

Grade	Marks X (%)
A	$x \geq 70$
B	$60 \leq x < 70$
C	$50 \leq x < 60$
D	$40 \leq x < 50$
F	$x < 40$
A-D	Pass
F	Fail

## L. Evaluation of Performance

The percentage mark at Level 1 contributes a 20 % weighting towards the Degree classification.

The percentage mark at Level 2 contributes a 30% weighting towards the Degree classification.

The percentage mark at Level 3 contributes a 50% weighting towards the Degree classification.

## M. Award Classification

### Overall weighted mark y (%)

$$y \geq 70$$

$$60 \leq y < 70$$

$$50 \leq y < 60$$

$$45 \leq y < 50$$

$$40 \leq y < 45$$

$$y < 40$$

### Classifications

: 1<sup>st</sup> Class Honours

: 2<sup>nd</sup> Class 1<sup>st</sup> Division Honours

: 2<sup>nd</sup> Class 2<sup>nd</sup> Division Honours

: 3<sup>rd</sup> Class Honours

: Pass Degree

: No Award

## N. Programme Organisation and Management

**Programme Development Committee:** Dr NNardawoo Jaypaul, Dr Prabha Ramseook-Munhurrun, Dr Chandradeo Bokhoree, Dr Yirajen Vuddamalay, Mrs Vijaya Ramsamy-Coolen; Prof O.P. Mishra (Visiting Professor from Banaras Hindu University), Dr Sharmila P. Seetulsingh-Goorah.

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## Part II - Programme Structure

### O. BSc.(Hons) Environmental and Public Health– Full Time (Version 2.0)

YEAR 1								
Semester 1				Semester 2				
Code	Modules	Hrs/Wk L + T + DS	Credits	Code	Modules	Hrs/Wk L + T + DS	Credits	
BIO 1101E	Human Anatomy and Physiology	2 + 1 + 1	4	SSDV 1102B	Principles of Sustainability	2 + 1	3	
BIO 1201E	Medical Microbiology and Vector Biology	2 + 1 + 1	4	HLTH 1201E	Control of Communicable Diseases	2 + 1	3	
HLTH 1101E	Public Health Administration & Organisation	2 + 1	3	HLTH 1102E	Environmental and Public Health Legislation	2 + 1 + 1	4	
FDN 1104B	Food Safety & Hygiene I	2 + 1	3	HLTH 1103E	Health Information, Education and Communication	2 + 1	3	
OSHM 1221B	Introduction to Environmental Health	2 + 1	3	FDN 1105B	Food Safety and Hygiene II	2 + 1	3	
YEAR 2								
Semester 1				Semester 2				
Code	Modules	Hrs/Wk L + T + DS	Credits	Code	Modules	Hrs/Wk L + T + DS	Credits	
ENVT 2206B	Water and Wastewater Management	2 + 1 + 1	4	WPL 2000E	Professional (Work) Placement		6	
ENVT 2204B	Solid Waste Management	2 + 1 + 1	4	HLTH 2202E	Epidemiology	3 + 1	4	
OSHM 2222B	Occupational Health and Industrial Hygiene	2 + 1 + 1	4	HLTH 2103E	Primary Health Care	3 + 1	4	
HLTH 2203E	Non Communicable Diseases and Health Promotion	2 + 1 + 1	4	STAT 2501B	Bio Statistics	3 + 1	4	
YEAR 3								
Semester 1				Semester 2				
Code	Modules	Hrs/Wk L + T + DS	Credits	Code	Modules	Hrs/Wk L + T + DS	Credits	
STAT 3307B	Research Methods for Environmental and Health Sciences	2 + 2	4	OSHM 2120B	Toxicology and Risk Assessment	2 + 1 + 1	4	
HLTH 3301E	Built Environment and Health	2 + 1 + 1	4	ENVT 3113B	Pollution Monitoring and Control	2 + 1 + 1	4	
HLTH 3302E	Climate Change and Health	2 + 1 + 1	4	OSHM 3220B	Applied Environmental and Public Health Strategy	2 + 1 + 1	4	
ENVT 3605B	Environmental Management Tools and Techniques	2 + 2	4					
	Employability Skills Development (ESD)							2
DISS 3000	Dissertation							9

**P. BSc. (Hons) Environmental and Public Health – Part Time (Version 2.0)**

<b>YEAR 1</b>							
<b>Semester 1</b>				<b>Semester 2</b>			
<b>Code</b>	<b>Modules</b>	<b>Hrs/Wk</b> L + T + DS	<b>Credits</b>	<b>Code</b>	<b>Modules</b>	<b>Hrs/Wk</b> L + T + DS	<b>Credits</b>
BIO 1101E	Human Anatomy and Physiology	2 + 1 + 1	4	OSHM 1221B	Introduction to Environmental Health	2 + 1	3
BIO 1201E	Medical Microbiology and Vector Biology	2 + 1 + 1	4	SSDV 1102B	Principles of Sustainability	2 + 1	3
HLTH 1101E	Public Health Administration & Organisation	2 + 1	3	HLTH 1201E	Control of Communicable Diseases	2 + 1	3
FDN 1104B	Food Safety & Hygiene I	2 + 1	3	HLTH 1102E	Environmental and Public Health Legislation	2 + 1 + 1	4
<b>YEAR 2</b>							
<b>Semester 1</b>				<b>Semester 2</b>			
<b>Code</b>	<b>Modules</b>	<b>Hrs/Wk</b> L + T + DS	<b>Credits</b>	<b>Code</b>	<b>Modules</b>	<b>Hrs/Wk</b> L + T + DS	<b>Credits</b>
HLTH 1103E	Health Information, Education and Communication	2 + 1	3	ENVT 2204B	Solid Waste Management	2 + 1 + 1	4
ENVT 2206B	Water and Wastewater Management	2 + 1 + 1	4	OSHM 2222B	Occupational Health and Industrial Hygiene	2 + 1 + 1	4
FDN 1105B	Food Safety and Hygiene II	2 + 1	3	HLTH 2203E	Non Communicable Diseases and Health Promotion	2 + 1 + 1	4
<b>YEAR 3</b>							
<b>Semester 1</b>				<b>Semester 2</b>			
<b>Code</b>	<b>Modules</b>	<b>Hrs/Wk</b> L + T + DS	<b>Credits</b>	<b>Code</b>	<b>Modules</b>	<b>Hrs/Wk</b> L + T + DS	<b>Credits</b>
HLTH 2103E	Primary Health Care	3 + 1	4	STAT 3307B	Research Methods for Environmental and Health Sciences	2 + 2	4
STAT 2501B	Bio Statistics	3 + 1	4	HLTH 3301E	Built Environment and Health	2 + 1 + 1	4
HLTH 2202E	Epidemiology	3 + 1	4	HLTH 3302E	Climate Change and Health	2 + 1 + 1	4
WPL 2000E	Professional (Work) Placement		6				

Semester 1		YEAR 4				Semester 2	
Code	Core Modules	Hrs/Wk L + T + DS	Credits	Code	Core Modules	Hrs/Wk L + T + DS	Credits
ENVT 3605B	<i>Environmental Management Tools and Techniques</i>	2 + 2	4	ENVT 3113B	<i>Pollution Monitoring and Control</i>	2 + 1 + 1	4
OSHM 2120B	<i>Toxicology and Risk Assessment</i>	2 + 1 + 1	4	OSHM 3220B	<i>Applied Environmental and Public Health Strategy</i>	2 + 1 + 1	4
	Employability Skills Development (ESD)						2
DISS 3000	<i>Dissertation</i>						9

## Q. NON-PRESCRIPTIVE MODULE OUTLINE

### BIO1101E: Human Anatomy and Physiology

Introduction to basic anatomical and physiological concepts, Cellular and tissue level of organisation, Mechanical properties of bone and muscle tissue, Structure and function of the musculoskeletal and joint systems in the body, Components of the peripheral nervous systems and their representative innervations, Biochemical and kinesiological principles applied to performance of daily movement tasks, Structure and function of the human body with emphasis on the physiology of the nervous, cardiovascular, immune, respiratory, endocrine, digestive, urinary and reproductive systems.

### BIO1201E: Medical Microbiology and Vector Biology

Introduction to microbiology, Differentiation of viruses, algae, protozoa, fungi and bacteria, Prokaryotic cellular structure and function, Microbial growth control factors and physiology of bacteria, Principles of isolation and identification of bacteria, Host-parasite relationships, Disease transmission, Principles of sterilisation, disinfection and antimicrobial therapy, Properties of pathogens and action of antibacterial drugs, Taxonomic principles and their application to medically important microbes.

### HLTH1101E: Public Health Administration & Organisation

History of public health in Mauritius. Organisational structure and functions of the current Mauritian health system. Types of health services and health care delivery structures. Health policy and management with regards to the delivery, quality and cost of healthcare for individuals and populations. Critical issues in health services.

### FDN1104B: Food Safety and Hygiene I

Introduction to food microbiology and toxicology, food inspection, consumer markets food service & retail), Chain intermediaries (import/export, wholesale, transport, processing), Food hygiene and inspection, Duties and powers of Health Inspectors, Hygienic conditions of kitchens of hospitals, clinics, homes for the elderly, Personal hygiene of food handlers, Identification, composition and properties of foodstuffs and their relationship with safety, fitness, and quality, Evaluation of the roles of all organisations involved in food management in relation to food safety, Development of food policies, Evaluation of the relevant statutory provisions, Appraisal of the role of the enforcement officer, Relevant factors to improve food safety.

### OSHM1221B: Introduction to Environmental Health

Environmental systems and those factors that influence health, Population demography, Political and social influences on health, Measuring environmental quality, Risk and health impact, Trans-boundary and global health concerns, Agencies involved in the management and control of environmental health



including the work environment, Environmental and health stressors, sanitation, hazards.

### **SSDV1102B: Principles of Sustainability**

Broad overview of the origins & concept of sustainability, The guiding principles for the development process, Key concepts & drivers of sustainability, Roles of stakeholders, institutions, the business community, government, consumers & NGOs, Sustainable development issues & socio-cultural sustainability, The tripple bottom line: economics, environment & equity; Resource production & consumption, Environmental impacts & environmental indicators, Climate change, Fundamental ecological concepts, Ecosystem services; Sustainable industry & business, The future of energy, Eco-efficiency & carbon trading.

### **HLTH1201E: Control of Communicable Diseases**

Introduction to Communicable Diseases, Principles of Infection, Prevention & Control, Immunisation, Contact Diseases, Sexually Transmitted Diseases, HIV/AIDS, Vector Borne Diseases, Diseases of Faecal-Oral Contamination, Air Borne Diseases, Diseases of Contact With Animals or Animal Products.

### **HLTH1102E: Environmental and Public Health Legislation**

Introduction to Law, Nature of constitutional and administrative law, Constitutional foundations of the powers of the court, Arbitration and the hearing tribunal, Law of contract, Distinction between Public and Private Law, Criminal and Civil Law, Common Law and Civil Law Systems, Case Law Techniques, Public Health Act (1925): Scope, Importance & relation with H&S, Retrictions on Tobacco & Alcohol Products 2008( Regulations GN 263), HIV/Aids Act (2006), History of local Government, Different Systems of Local Government, Evolution of Local government system in Mauritius, Functioning of Municipal, District and Village Council, The Council and Standing committees, Role of Mayor and Chairman, Local Government Legislations- Local Government Acts 1989 and 2003 as subsequently amended, Local government finance, the Local government financial management manual, Code of ethics for local government officers, Citizens Charter of Local authorities, Public Relations Policy, Enviromental Protection Act, Food Act.

### **HLT1103E: Health Information, Education and Communication**

Introduction to health information and health information systems, components of health information systems, uses of health information, sources of health information and indicators of health care, the communication process, types of communication, functions of health communication, effective health communication, models of health education, contents of health education.

### **FDN1105B: Food Safety and Hygiene II**

Agricultural production systems and Input supply industries including intensive (aquaculture, horticulture, viticulture, pigs, horses, poultry), broadacre & pastoral (grain, beef, sheep, wool) and equine industries, meat, poultry and seafood processing, Effect of production methods on food safety, Genetically Modified Organism (GMOs).

### **ENVT2206B: Water and Wastewater Management**

Physical, chemical, microbiological and aesthetic indicators of water quality and their analytical methods, Water systems as resources and implications on water quality, Water Quality and Health, Raw water sources, water treatment, and distribution, Wastewater Collection System, Wastewater Treatment Technologies, Sludge Processing and Disposal.

### **ENVT2204B: Solid Waste Management**

Introduction to Waste Management, Concepts of MSW, SWM, ISWM , Waste generation & quantification, composition, classification, Physical, Chemical and Biological properties of solid waste, Waste collection, separation and transfer technologies, Solid waste source reduction and recycling, Physical preparation of waste, Biological treatment of waste, Thermal treatment of waste, Landfill system and management, Hazardous waste and risk management.

### **OSHM2222B: Occupational Health and Industrial Hygiene**

Introduction to occupational health, Definition & Meaning, Types, Causes, Introduction to the types of occupational hazards: Biological, Chemical, Physical & Ergonomics, Occupational Illnesses, Workplace Violence, Industrial pollution, Chemical pollution, Industrial pollution control, Occupational Hygiene Standards, Hazard Control, Monitoring of Air Contaminants: Environmental & Personal Monitoring, Airborne Emissions: Aerosols, mists & fog, fumes, dusts, smoke & fibres, Respiratory Protective Devices, Principles of Sampling, Measuring & Monitoring of Environmental Factors, Analytical Methods used in Industrial Hygiene, The Aural Environment: Noise and Hearing, Principles of Noise & Vibration Control, Noise Measurements. Hearing Conservation Programme, Ear Protection, The Thermal Environment: Effects of Heat & Cold Stress, Indices of Thermal Stress, Psychrometric Charts, Assessment of thermal environment, Physical hazards – Ionising (alpha, beta, gamma, x-rays) & Non-ionising (Microwaves, Lasers ) Radiation, Microbiological Hazards – Infectious Diseases at work.

### **HLTH2203E: Non Communicable Diseases and Health Promotion**

Introduction to NCDs, NCD risk factors, determinants of NCDs, causes of NCDs, accidents, control of NCDs, Socio-economic impacts of NCDs, prevention and prevention strategies of NCDs.

### **WPL2000E: Professional Placement**

Professional placement assessment: Performance Appraisal Form (Supervising Officer/Employer)

### **HLTH2202E: Epidemiology**

Dynamic interaction between agent, host, and environment, Concepts of health and disease, Concepts of risk factors and causes, Epidemiological study designs, their strengths and limitations, inference and causation, bias and confounding, Age standardisation procedures and application of epidemiological knowledge, principles and techniques to investigate public health issues, Introduction to Communicable Diseases, Principles of Infection, Prevention & Control, immunisation, HIV/AIDS, Conventional risk factors (lifestyle factors such as tobacco use, unhealthy diet, physical inactivity, and high blood pressure), Upstream factors and the determinants of health (e.g. urbanisation, income, education, trade, health transitions).

### **HLTH2103E: Primary Health Care**

Definition of Primary Health Care, Evolution of Health Care, Primary Health Care and the MDGs/SDGs, Elements of primary health care, Principles of Primary Health Care, Social Perspective of Primary Health Care, National Strategies, Managing Primary Healthcare Services; Case Studies.

### **STAT2501B: Bio Statistics**

Introduction, Type of data, Measurement and Scaling Techniques, Data collection and data preparation, Graphical representation of data, Measures of location and dispersion, Basic probability, Distribution of random variables: Binominal and Normal distribution, Sampling distribution and interval estimation, Vital Statistics.

### **STAT3307B: Research Methods for Environmental and Health Sciences**

Introduction to survey research methodology: The research process, Formulating the research problem, Research questions and research objectives, Experimental, cross-sectional, longitudinal, quantitative and Qualitative Research Design, Data collection methods, Questionnaire Design, Ethical consideration in Research, Data analysis: Introduction to SPSS: Entering data, Descriptive statistics and graphs, Hypothesis testing, Choosing appropriate statistical tests, statistical techniques used for analysing simple environmental data; Writing up research results: Structure of a report/dissertation, Referencing.

### **HLTH3301E: Built Environment and Health**

Introduction to the built environment, elements of the built environment, effects of the built environment on health (ventilation, noise, air quality, room temperature), measurement techniques and monitoring strategies, sustainable buildings and health.

**HLTH3302E: Climate Change and Health**

Introduction to climate change, the climate system, elements of the climate system, impacts and effects of climate change, causes of climate change, health impacts of climate change, vulnerable groups, extreme temperatures and weather conditions, emerging and re-emerging diseases, mitigation and adaptation to climate change.

**ENVT3605B: Environmental Management Tools and Techniques**

Environmental Impact Assessment, Social and Cultural impacts, Life Cycle Assessment, Planning for land and resource use, Waste Management and Environmental emergencies, ISO 14001, Clean Technologies, Environmental Monitoring, Global Reporting Initiative, Environment Management Systems, Environmental Auditing.

**OSHM2120B: Toxicology & Risk Assessment**

Introduction to Toxicology, Toxic substances: risks involved, handling, storing, labelling, precautionary measures, Principles of Toxicology – Routes of entry and target organs. Dosage-response relationships, Toxicity Indices, Acute (Short-term exposure) & Chronic (Long-term exposure) health Effects, Storage of Toxicants in tissues (Liver & kidney), Routes of Excretion, Classification of Toxic materials, Chemical Hazards in the working environment, Chemical hazards Material Safety Data Sheets, Pesticides & Solvents, Principles of risk assessment, Risk identification techniques, Assessment of risks associated with the use of Hazardous substances, Control of substances hazardous to health.

**ENVT3113B: Pollution Monitoring and Control**

Analysing the nature and impact of contaminants in soils, Determination of contaminated land, Sources and impacts of atmospheric pollutants, Techniques for atmospheric pollution monitoring and control, Environmental modeling, Nature and characteristics of noise, Measurement of noise from various sources including industrial, domestic and traffic, Noise assessment and control, Odour control, Water pollution in fresh and marine waters, its sources and control, Water and waste water treatment, Water quality analysis, Indoor environmental quality.

**OSHM3220B: Applied Environmental and Public Health Strategy**

Concept of integrated strategy (Environmental, Social and Health), Development of integrated strategy, Concept of strategy for implementation, Understanding of the synergistic relationship between applied environmental and public health issues, Strategies to implement health gain or improvement, Application of a strategic view of environmental and public health to a range of settings.

**DISS3000: Dissertation**

A 10,000-12,000 words dissertation will have to be submitted at the end of the semester. The work submitted should conform to the Undergraduate Dissertation Guidelines.

**Employability Skills Development (ESD)**

As per ESD Guidelines