



UNIVERSITY
of
TECHNOLOGY,
MAURITIUS

School of Sustainable Development and Tourism

MSc Sustainability for Business, Society and Environment F/T- P/T

PROGRAMME DOCUMENT

VERSION 1.0

MS

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University of Technology, Mauritius
La Tour Koenig, Pointe aux Sables, Mauritius
Tel: (230) 2075250 Fax: (230) 234 6269
website: www.utm.ac.mu

MSc. Sustainability for Business, Society and Environment

A. Programme Information

With an expanding global population, countries, both developed and developing ones, are facing the ever-growing challenges of meeting basic human needs in a sustainable manner. Individuals, communities, small businesses, multinational corporations, government bodies and non-government organizations, all are experiencing the consequences of key issues such as climate change, the depletion of fossil fuels as a main source of energy, the loss of biodiversity, food security, and water scarcity. All these stakeholders therefore have to endeavor for sustainability, by developing and adopting innovative and sustainable approaches and practices.

This Masters programme has been designed as an inter-disciplinary course to address the complex relation between the three pillars of sustainability, namely the environment, the economy and the society. Through this course, participants will be exposed to the broad economic, societal and environmental issues that will allow them to anticipate changes, be more creative and that will offer them more professional opportunities. A central role of this programme is to help students gather the adequate skills and knowledge to equip them with a critical understanding and help envision better strategies for our future generations.

B. Programme Aims

The primary aim of this programme is to allow participants of both public and private organizations to appreciate the sustainability agenda applicable to their company. Professionals and students embarking on the course will be enriched with an innovative programme that has been articulated while taking into account Millennium Development Goals and other international challenges.

The programme is designed for candidates who wish to practice as sustainability professionals, coordinators, advisers or consultants, for business leaders aiming to gain a better understanding of sustainability risks and opportunities and how to respond to these. It has also been designed for leaders from the not-for-profit or public sectors who wish to work together with the private sector to address sustainability challenges.

C. Programme Objectives

The objectives of this programme are to:

- Offer the opportunity to gather professional and technical skills required to appreciate sustainability issues and related global debates.
- Develop an understanding of the process of economic, social and environmental policy development, implementation and enforcement.
- Provide a firm foundation and practical research to allow reflections towards sustainable development protection and conservation.
- Enable students to embed new environmental management strategies to ensure project sustainability.
- Assist students in developing their critical skills to assess, evaluate and apply the notions of sustainability in their daily life (personal, organization, community, country)

PART I – Regulations

D. General Entry Requirements

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

E. Programme Entry Requirements

(a) Graduates of a recognised university with at least a second class honours degree or holders of an approved professional qualification deemed equivalent to an honours degree.

Or

(b) Exceptionally candidates holding a Diploma from an approved institution may be admitted with at least 5 years of professional work experience.

F. Programme Mode and Duration

Full Time: 1½ years comprising of 3 semesters

Part Time: 2 years comprising of 4 semesters

Semester: 15 weeks (excluding exam period)

G. Teaching and Learning Strategies

The programme will consist of a wide variety of teaching methods, including lectures, individual or group projects, presentations, workshops, seminars and case studies. Self-learning will be the key feature of the programme, enabling students to explore, investigate and research in various issues related to the programme..

H. Student Support and Guidance

Students are expected to attend all lectures during 15 weeks where seminars, presentations and case study discussions will be carried out. Students' active participation and self-learning is required through the successful completion of the programme.

I. Attendance Requirements

As per UTM's Regulations and Policy.

J. Credit System

Each module is equivalent to 3 credits and one credit is equivalent to 15 hours. All modules will carry 100 marks and the dissertation will carry 100 marks (9 credits).

K. Student Progress and Assessment

For the award of the Masters degree all modules must be passed overall with passes in the examinations, coursework and other forms of assessment. All modules will have equal weighting (Research Methods will be assessed 100% by coursework). The dissertation will carry 100 marks (9 credits).

Written examinations will be of a maximum of 3 hours' duration. Continuous assessment will carry up to 40% of the total marks and will be based on seminars, case studies, class tests and/or assignments.

L. Evaluation of Performance

MSc	42 Credits
Postgraduate Diploma	30 Credits
Postgraduate Certificate	18 Credits

Pass mark for each assessed component of a module is 40%.

Grading

Grade	Marks x (%)
A	$70 \leq x \leq 100$
B	$60 \leq x < 70$
C	$50 \leq x < 60$
D	$40 \leq x < 50$
F	$x < 40$
A – D	Pass
F	Fail

M. Award Classification

CPA \geq 70	Master of Science with Distinction
$60 \leq$ CPA $<$ 70	Master of Science with Merit
$40 \leq$ CPA $<$ 60	Master of Science
CPA $<$ 40	No Award

N Programme Development Committee:

Dr. C. Bokhoree

Mrs. T. Makoondlall-Chadee

Mrs. V. Ramasamy-Coolen

sbokhoree@umail.utm.ac.mu

t.m.chadee@umail.utm.ac.mu

vr.coolen@umail.utm.ac.mu

O. PROGRAMME STRUCTURE AND PLAN

MSc. Sustainability for Business, Society and Environment – *Full Time*

YEAR 1							
<i>Semester 1</i>				<i>Semester 2</i>			
Code	Modules	Hrs/Wk L+ P	Credits	Code	Modules	Hrs/Wk L+ P	Credits
SSDV 5104B	Principles and Theories of Sustainability	3 + 0	3	ENVT 5113B	Governance for Global Environmental Sustainability	3 + 0	3
SSDV 5105B	Sustainable Businesses and Environment	3 + 0	3	ENVT 5404B	Sustainability Assessment Tools	3 + 0	3
MBUS 5104B	Innovation and Sustainability	3 + 0	3	OPS 5307B	Sustainable Project Management	3 + 0	3
STATS 5301	Research Methods	3 + 0	3	XXXX	Elective 1*	3 + 0	3
CSR 5206B	Corporate Ethics and Values for Sustainability	3 + 0	3	DIS 5000	Dissertation**		

YEAR 2			
<i>Semester 1</i>			
Code	Modules	Hrs/Wk L+ P	Credits
XXXX	Elective 2*	3 + 0	3
XXXX	Elective 3*	3 + 0	3
DIS 5000	Dissertation**		9

*Note: At the time of registration students are required to submit a list of three preferred elective modules to be taken during the course of the study. The University reserves the right not to offer a given elective module if the critical number of students is not attained and/or for reasons of resource constraints.

**Note: Students are encouraged to conduct dissertation work as applied to the market needs for sustainability

MSc. Sustainability for Business, Society and Environment– Part Time

YEAR 1							
Semester 1				Semester 2			
Code	Modules	Hrs/Wk L+ P	Credits	Code	Modules	Hrs/Wk L+ P	Credits
SSDV 5104B	Principles and Theories of Sustainability	3 + 0	3	STATS 5301	Research Methods	3 + 0	3
SSDV 5105B	Sustainable Businesses and Environment	3 + 0	3	CSR 5206B	Corporate Ethics and Values for Sustainability	3 + 0	3
MBUS 5104B	Innovation and Sustainability	3 + 0	3	ENVT 5113B	Governance for Global Environmental Sustainability	3 + 0	3
YEAR 2							
Semester 1				Semester 2			
Code	Modules	Hrs/Wk L+ P	Credits	Code	Modules	Hrs/Wk L+ P	Credits
ENVT 5404B	Sustainability Assessment Tools	3 + 0	3	XXXX	Elective 2*	3 + 0	3
OPS 5307B	Sustainable Project Management	3 + 0	3	XXXX	Elective 3*	3 + 0	3
XXXX	Elective 1*	3 + 0	3	DIS 5000	Dissertation**		9
DIS 5000	Dissertation**						

List of Elective Modules	
SSDV 5106B	Sustainable Communities
ENVT 5114B	Natural Resources Management
MBUS 5105B	Green Economy: Markets, Business and Politics
SSDV 5602B	Socio-Environmental Behaviours for Sustainability
ENVT 5601B	Green Technologies and Renewable Systems
MBUS 5106B	Knowledge Management and Communication for Sustainability

*Note: At the time of registration students are required to submit a list of three preferred elective modules to be taken during the course of the study. The University reserves the right not to offer a given elective module if the critical number of students is not attained and/or for reasons of resource constraints.

**Note: Students are encouraged to conduct dissertation work as applied to the market needs for sustainability

P. MODULE OUTLINE

SSDV 5104B: Principles and Theories of Sustainability

- Definition of sustainable development and sustainability
- Concept and principles of sustainability
- History and evolution of the concept of sustainability
- The three pillars of sustainability – environment, society and economy
- Environmental dimension of sustainability – climate change, loss of biodiversity, energy conservation, resource management
- Social dimension of sustainability – good governance, social justice, ethics, poverty, communities
- Economic dimension of sustainability – human consumption, green economy, eco-capitalism
- Measuring and auditing for sustainability
- Moving towards Self-compliance (accreditations e.g. ISO certification)

SSDV 5105B: Sustainable Businesses and Environment

- Definition and concept of responsible businesses
- Drivers of responsible businesses; Eco-Labels and other International Standards
- Frameworks for sustainable businesses: The Natural Step, The Triple Bottom Line, Zero Waste, Ecological Footprint, Natural Capitalism
- Responsible business practices
- Barriers to sustainable business practices
- Case studies and sustainable business plan
- Ethics and Governance
- Managing Change

MBUS 5104B: Innovation and Sustainability

- Concept and definition of innovation
- Schumpeter's distinction between invention and innovation
- Theories and models of innovation: Rothwell's five generations of innovation models
- Strategies for innovation
- Stages of innovation life cycle
- Innovation management
- Sustainability innovation and eco-innovation

STATS 5301: Research Methods

- Research Concepts: Research issues, problems, questions, hypotheses
- Measurement and Scaling in Research: Reliability, validity
- Research Design and Survey Methods, questionnaire design
- Ethics in Research
- Techniques for Literature Review

- Qualitative Methods: designing, gathering, processing and analysing qualitative research information
- Quantitative Methods: Introduction to Statistics, Data Description, Hypothesis Testing, t-tests and ANOVA
- Data analysis with SPSS
- Reporting and presenting research

CSR 5206B: Corporate Ethics and Values for Sustainability

- History and evolution of political and legal status of corporations
- Sustainable Leadership and practices
- Values governing sustainability
- Ethical dimensions of management
- Corporate citizenship
- Corporate social responsibility – social entrepreneurship, community interest company
- Good practice and good governance
- Stakeholder capitalism

ENVT 5113B: Governance for Global Environmental Sustainability

- Concept of climate change and climate change management
- Potential environmental and socioeconomic global impacts of climate change
- Multilateral Environment Agreements - Rio Declaration on Environment and Development, International reports and agreements: United Nations Conference on the Human Environment, Brundtlandt Commission Report, Earth Summit, Agenda 21, Convention on Biological Diversity, ICPD Programme of Action, Earth Charter, Millennium Declaration, Millennium Ecosystem Assessment, Rio Summit, Kyoto Protocol, BASEL Convention, Rotterdam Convention, Montreal Protocol
- Mitigation / adaptation strategies with particular interest to vulnerabilities of SIDS
- International law and trade

ENVT 5404B: Sustainability Assessment Tools

- Environmental, social and business economic Indicators
- Environmental Impact Assessment and Preliminary Environmental Report
- Environmental Legislation
- Environmental Audits, accounting, performance evaluation
- Life Cycle Assessment
- Ecological footprinting
- Sustainability Accounting
- Circles of sustainability
- Global Reporting Initiative
- The Dashboard of Sustainability
- System of Integrated Environmental and Economic Accounting
- Self-compliance
- Multi criteria Decision Aid (MCDA)

OPS 5307B: Sustainable Project Management

- Project Management Fundamentals
- Definition and concept of sustainable development projects
- Project planning and organization
- Role of culture in sustainable project management
- Project Scheduling techniques
- Sustainable resources management, sustainable human resource management
- Risk assessment and management
- Stakeholder management
- Change management
- Project Monitoring
- Project Evaluation and Termination

DISS 5000: Dissertation

A 15,000-18,000 words dissertation will have to be submitted at the end of the semester. The work submitted should conform to the school's Postgraduate Dissertation Guidelines.

Electives:

SSDV 5106B: Sustainable Communities

- Concept and definition of sustainable communities and sustainable housing
- Principles of urban ecology – increasing need for symbiosis between nature and the built-environment, sustainable urban design
- Vulnerability of the environment to the society's impact
- The notion of sustainable production and consumption (SCP) and SCP indicators
- Concept and definition of community regeneration
- Causes of social exclusion – drugs, crimes, poverty, education, etc.
- Capacity building for sustainable communities– food security, urbanization, migration
- Multi-agency partnerships

ENVT 5114B: Natural Resources Management

- Definition of Natural Resources
- Need for natural resources management
- Concept of natural resources management – sustainable land management, Forest Management, Water Resources Management, Wildlife conservation
- Approaches and strategies of natural resources management – adaptive management, community based NRM, Precautionary approach, Integrated approach, Conservation of biodiversity, Integrated Coastal Zone Management
- NRM frameworks
- Ownership regimes

- Case studies on sustainable tourism, sustainable agriculture and Fisheries etc..

MBUS 5105B: Green Economy: Markets, Business and Politics

- Micro and macro economic theory
- Definition and concept of green economy
- Carbon trading
- Green accounting
- Environmental Taxation (The Environment Fund)
- Sustainable finance
- Link between economic, environmental, social and governance
- Public policies and legal framework issues in sustainability management
- Access to decent jobs (safe working environment, right to strike)
- Government as facilitator (Fiscal incentives and Subsidies)

SSDV 5602B: Socio-Environmental Behaviours for Sustainability

- Theoretical concepts of environmental behaviour – environmental ethics, actor network theory, rational choice theory
- Concepts of citizenship, identity and obligation, environment psychology
- Psychosocial aspects of sustainability from a systemic approach
- Variables of environmental behaviour - environmental sensitivity, knowledge of ecology, Personal commitment, ownership and empowerment issues
- Environmental choices – waste disposal and management, responsible consumerism, energy consumption
- Evaluation of impact of environmental behaviours – carbon footprinting, life cycle analysis
- Environmental Stewardship (Reference to section 2 of the EPA)
- Religion and sustainability
- The impact of globalization (eg multinationals) on culture (de-culturisation)

ENVT 5601B: Green Technologies and Renewable Systems

- Definition of green technology
- Concepts of green technology – cradle-to-cradle design, source reduction, economic viability
- Green chemistry
- Renewable energy systems – wind systems, solar systems, hydro systems, geothermal systems, fuel cells and hybrid systems
- Solid and liquid waste management
- Re-use, Reduce, Recycling
- Green buildings
- Environmental remediation
- Environmental Pollution Abatement Technology
- Energy minimization and conservation

- Social, environmental, economic and technical implications and aspects of green technology and renewable systems

MBUS 5106B: Knowledge Management and Communication for Sustainability

- Development of communication plans
- Principles and practice of sustainable knowledge management and sustainable communication
- Communication approaches; the conventional and the strategic approach
- Mobilising the civil society
- Environmental education, training and awareness raising
- Communication objectives
- Media process, selection, use and design
- Alternatives in communication: technologies
- Communication risks
- Change management
- Local community involvement, corporate social responsibility and social marketing
- Local Agenda 21
- Conflict management
- Policies and practice in knowledge management and in managing sustainable communication initiatives