MSc Applied Economics - SH500

This is a two-year part-time postgraduate programme whereby students can specialise in four different areas of study and eventually be awarded the following specialised degrees according to their options:

(i) MSc Applied Economics (Specialisation: Banking and Finance)
(ii) MSc Applied Economics (Specialisation: Economic Policy and Development)
(iii) MSc Applied Economics (Specialisation: International Trade and Economic Diplomacy)
(iv) MSc Applied Economics (Specialisation: Environmental Economics and Policy)

1. Objectives

The objectives of the MSc Applied Economics Programme are:

- to provide a postgraduate level educational opportunity to acquire skills in standard economic analysis and its applications to real world situations by business firms, financial institutions, and government agencies;
- to prepare individuals to assume key positions of responsibility by upgrading their knowledge and skills to comparable international standards;
- to develop the ability to identify problems and the capacity for decision-making, leading to practical solutions; and
- to enhance the individual’s capacity to meet emerging challenges within an organisation with a view to increasing domestic and international competitiveness in a rapidly changing global environment.

2. General Entry Requirements

Successful completion of an undergraduate degree with

- at least a Second Class or 50%, whichever is applicable or
- a GPA not less than 2.5 out of 4 or equivalent, from a recognised higher education institution.

OR alternative qualifications acceptable to the University of Mauritius.

3. Programme Requirements

Same as above.

4. General and Programme Requirements – Special Cases

The following may be deemed to have satisfied the General and Programme requirements for admission:

(i) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who submit satisfactory evidence of having passed examinations which are deemed by the Senate to be equivalent to any of those listed.
(ii) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who in the opinion of Senate submit satisfactory evidence of the capacity and attainments requisite to enable them to pursue the programme proposed.

(iii) Applicants who hold a full practising professional qualification obtained by examination.

5. **Programme Duration**

The Programme will be offered on a part-time basis.

The minimum period for the completion of the degree is four semesters and the maximum period is eight semesters.

6. **Credits per Semester:** Minimum 3 credits subject to Regulation 5.

7. **Minimum Credits Required for Degree Award:** 36

Breakdown as follows:

<table>
<thead>
<tr>
<th></th>
<th>Core Taught Modules</th>
<th>Dissertation</th>
<th>Electives</th>
<th>Total</th>
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<tr>
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<td></td>
<td>Specialisation Area Modules</td>
<td>Other Electives</td>
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<tr>
<td>Master’s Degree:</td>
<td>12/24* credits</td>
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<td>9 credits/Nil*</td>
<td>3 credits/Nil*</td>
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</table>

* Only for specialisation in Environmental Economics and Policy

8. **Assessment**

Each module will carry 100 marks and will be assessed as follows (unless otherwise specified):

Written examination of 3-hour duration and continuous assessment carrying 10% to 30% of total marks.

Continuous assessment may be based on seminars and/or assignments and should include at least 1 class test.

For a student to pass a module, a minimum of 30% should be attained in both of Continuous Assessment and Written Examination separately, with an overall total of a minimum of 40% in that module.

No resit examinations will be organised. Instead, students will be allowed to carry forward a maximum of three modules at any point in time and will be allowed to sit for the examinations with the next cohort of students.

All modules carry their own credit value.

Every student has to submit a dissertation of 12,000-18,000 words by the end of the fourth semester. The dissertation topic should preferably be selected from within the area of specialisation pursued by the student.

**Submission Deadlines for Dissertation**

- First Draft: End of July in the Final Year.
- Final Copy: Last working day of August in the Final Year.
9. Choice of Electives and Specialisation Area Modules

Students will be required to submit their choice of electives and specialisation area modules in order of priority by the middle of Semester 1 of Year 1.

The University reserves the right not to offer a given elective module if the critical number of students is not attained and/or if there are resource constraints.

10. Important Note

The rules as stipulated in this Programme Structure and Outline Syllabus will replace all other rules and regulations.

11. Programme Plan - MSc Applied Economics

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Module Name</th>
<th>Hrs/Wk</th>
<th>Credits</th>
<th>Semester 2</th>
<th>Module Name</th>
<th>Hrs/Wk</th>
<th>Credits</th>
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<td>CORE</td>
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<td>ECON 5018 Policy Analysis and Economic Management</td>
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YEAR 2

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<tr>
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<th>Module Name</th>
<th>Hrs/Wk</th>
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SPECIALISATION: BANKING AND FINANCE

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<tr>
<th>Semesters 1 and 2</th>
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<td>ELECTIVES</td>
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<tr>
<td>ECON 5012</td>
<td>Corporate Financial Strategy</td>
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<td>ECON 5014</td>
<td>International Banking</td>
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<td>ECON 5020</td>
<td>Banking Practices and Portfolio Analysis</td>
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ECON 5031  Financial Development Policy  3+0  3
ECON 5041  International Financial Markets  3+0  3

**SPECIALISATION: ECONOMIC POLICY AND DEVELOPMENT**

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<td>ECON 5042</td>
<td>Public Finance and Policy</td>
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<tr>
<td>ECON 5030</td>
<td>Tourism and Development Policy</td>
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**SPECIALISATION: INTERNATIONAL TRADE AND ECONOMIC DIPLOMACY**

<table>
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<tr>
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<th>Module Name</th>
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<td><strong>ELECTIVES</strong>   <strong>CHOOSE AT LEAST THREE</strong></td>
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<td>ECON 6022</td>
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<td>ECON 6023</td>
<td>International Trade Policy and Institutions</td>
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<td>The WTO and Trade Negotiations</td>
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<td>ECON 5015</td>
<td>International Trade and Business Strategy</td>
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<tr>
<td>ECON 5036</td>
<td>Intellectual Property Rights</td>
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**NOTE:**
1. Elective modules for specialisation streams will be offered subject to availability of minimum number of students and faculty resources.
2. * Students opting for specialisation in Environmental Economics & Policy need not do any electives in Year 1.
3. ** Students would be expected to complete these modules at University of Pretoria, South Africa.
4. Students may be allowed to choose an elective from a different area of specialisation, only after having chosen two electives from his own area, and subject to approval of the Department.

**12. Outline Syllabus**

This outline syllabus is not prescriptive and is intended to serve as a guide only.

**ECON 5000 - DISSERTATION**

**ECON 5012 - CORPORATE FINANCIAL STRATEGY**
Interest rate, time value of money and project appraisal. Cost of capital and capital structure. Dividend policy, short and long-term financing. Mergers, holding companies, acquisitions and corporate restructuring, Derivatives and risk management. Bankruptcy risk, reorganisation and liquidation.

**ECON 5014 - INTERNATIONAL BANKING**

**ECON 5015 - INTERNATIONAL TRADE AND BUSINESS STRATEGY**
ECON 5018 - POLICY ANALYSIS AND ECONOMIC MANAGEMENT

ECON 5020 - BANKING PRACTICES AND PORTFOLIO ANALYSIS

ECON 5028 - ECONOMIC POLICY FOR SOCIAL SERVICES

ECON 5029 - ENVIRONMENTAL GOVERNANCE

ECON 5030 - TOURISM AND DEVELOPMENT POLICY

ECON 5031 - FINANCIAL DEVELOPMENT POLICY

ECON 5036 - INTELLECTUAL PROPERTY RIGHTS

ECON 5041 - INTERNATIONAL FINANCIAL MARKETS

ECON 5042 - PUBLIC FINANCE AND POLICY

ECON 5043 - APPLIED ECONOMETRIC MODELLING

ECON 5112 - MACROECONOMIC ANALYSIS
ECON 5117 - ECONOMICS OF DECISION MAKING

ECON 5118 - ECONOMETRIC METHODS

ECON 5124 - GLOBALISATION AND DEVELOPMENT

ECON 5211 - INFORMATION AND MARKET ANALYSIS

ECON 6022 - REGIONAL INTEGRATION AND TRADE DIPLOMACY

ECON 6023 - INTERNATIONAL TRADE POLICY AND INSTITUTIONS

ECON 6024 - THE WTO AND TRADE NEGOTIATIONS

ECON 6026 - ECOSYSTEM MANAGEMENT AND RESEARCH ECONOMICS
This course will introduce students to the underlying key environmental processes and services, ecosystem management, techniques of optimisation overtime, optimal allocation and management of non-renewable and renewable resources.

Section 1 (10 hours): Ecosystems and environmental processes
This section will provide students with a basic but crucial understanding of key concepts of ecology and ecosystems functions. Those should include themes such as population ecology, ecosystem ecology, ecosystems services (provisioning of goods as well as supporting and enriching functions of ecosystems), biodiversity, etc. Also the section should introduce students to the basic concepts of carrying capacity, material balance and the laws of thermodynamics, resilience, entropy laws, etc.

Section 2 (12 hours): Review principles and techniques of inter-temporal optimisation
Review of basic principles and techniques of optimisation overtime necessary for understanding, analysis and management of the allocation of natural and environmental resources. Themes in this section should include dynamic optimisation, optimal control theory, calculus of variation, difference and differential equations and dynamic programming, uncertainty and stochastic optimal control.

Section 3 (14 hours): Management of natural resources
This section will provide students with the theory and methods of optimal management and extraction of renewable and non-renewable resources with and without extraction costs, optimal extraction programs under different market structures; exploration and discovery, recycling. Principles of optimal utilisation of
renewable resources; natural growth and regeneration; limitations of population models; maximum sustainable yield; steady state; optimal harvesting under different property rights regimes.

ECON 6027 - ENVIRONMENTAL VALUATION AND POLICY
This course will review the basic principles of microeconomic theory needed for understanding and analysis of environmental problems, introduce market and non-market techniques of valuation of natural resources and environmental services, public goods and environmental externalities, property rights regimes and selection of appropriate environmental policy instruments for management of environmental externalities.

Section 1 (10 hours): Review principles of micro economic theory
Review of basic principles of microeconomic theory needed for understanding and management of the allocation of natural and environmental resources. The section should review the following themes.
1. Theory of consumers’ choice, measures of economic surplus and willingness to pay, etc.
2. Welfare economics, market equilibrium, social optimality, pareto efficiency and equity
3. Efficiency and equity aspects of Inter-temporal equilibrium
4. Public goods, common property resources and externalities
5. Property rights regimes and institutional, policy and market failures
6. Brief introduction to some examples of correcting externalities (pigouvian taxes, etc.)
7. Game theory

Section 2 (12 hours): Valuation of natural resources and environmental services
Components of value; the concept of total use values (direct, indirect and non-consumptive), non-use values, option and intrinsic values. Welfare economics as the basis for valuation; consumer and producer surplus as measures of welfare change; willingness to accept/pay. Environmental valuation techniques; household production; hedonic pricing; contingent valuation and travel cost methods. Project level analysis: environmentally adjusted cost benefit analysis.

Section 3 (14 hours): Externalities and environmental policy
Environmental externalities; optimal pollution management in the presence of externalities. public goods; pure and rival environmental public goods; the free-rider problem and club goods. Environmental policy instruments, market based instruments; the efficiency of instruments; environmental user fees and charges; assurance bonds; fines and penalties. Regulations and standards; optimal regulation; safe minimum standards; standards and economic efficiency; sustainability and the maintenance of options for the future. Property rights: The Coase theorem and the allocation of property rights; transaction costs and the regulation of common property resources. Mixed instruments: tradable emissions permits, pollution offset systems. Other instruments: voluntary agreements, self-regulating co-operative outcomes. Selection of policy instruments.

ECON 6028 - QUANTITATIVE METHODS FOR ENVIRONMENTAL ECONOMICS
This course will provide students with adequate understanding and equip them with the appropriate tools for measurement, modeling and analysis of environmental processes and the linkages between ecological and economic management systems and environmental accounting.

Section 1 (14 hours): Review principles and techniques of environmetrics
This section should review and introduce intermediate econometrics methods needed for understanding, analysis and management of the allocation of natural and environmental resources (some of which may be covered, though inadequately as part of the theory core courses). Themes to be covered in this section should include: models of qualitative choice (tobit, probit, multinomial, etc), systems of equations, time series analysis, switching models, panel data analysis, co-integration and models of self selection and multiple choice.

Section 2 (14 hours): Systems analysis, ecological and economy-wide modeling
This section will provide students with sufficient understanding of systems analysis, ecological modeling, modeling economic behaviour and systems (multi-sector and economy-wide models, Input-output models, SAM and CGE models), integration of ecological and economic management models.

Section 3 (8 hours): Natural resource and environmental accounting
This section will provide students with understanding of the theory and applications of environmental accounting. Adjusting conventional measures of income, wealth and welfare for omission of environmental values and depletion of natural assets; physical and monetary asset accounts; resource rents; genuine savings and measures of sustainable income.
ECON 6029 - ENVIRONMENT AND DEVELOPMENT ECONOMICS

Section 1 (12 hours): Development and environmental degradation
This section will provide students with adequate understanding of the relationship between various approaches to and models of economic growth and development and sustainable use of natural resources and the environment. Sources of environmental degradation and the paradigms of sustainable development.

Section 2 (12 hours): Trade and the environment
This section will provide students with the appropriate tools and methods for modeling and analysis of the relationship between international trade and the environment. Theory and models of international trade, environmental impacts of trade, global (transboundary) environmental problems (climate change, etc), global environmental conventions (IPCC, RAMSAR, UNC to Combat Desertification, Biodiversity convention, etc.). Implications for local and regional economic policies and international trade.

Section 3 (12 hours): Poverty and environmental problems in Africa
This section will provide students with methods and tools for proper understanding and analysis of the relationship between natural resource and environmental degradation and human well-being. Constituents and determinants of human well-being. Measurement of and valuation of environmentally related human well-being problems in Africa (health, poverty, equity, lack of economic, social, cultural securities and access to natural resources).