

**THE OPEN UNIVERSITY OF TANZANIA**

**DEPARTMENT OF ECONOMICS**

**COURSE CONTENTS AND READING LISTS FOR THE B. A. GENERAL  
PROGRAMME**

**November 2007**

# **Detailed course outlines for BA (ECONOMICS)**

## **FIRST YEAR COURSES**

### **OEC 121: INTRODUCTION TO MICROECONOMICS**

#### **(I) Brief Course description**

This is an introductory course aimed at exposing students to the basics of microeconomics.

#### **(II) Course objectives**

After going through this course, the student should be able to:

- Describe the nature and scope of economics
- Recognise Demand and supply analysis
- Describe Production and Cost functions
- Recognise the importance of the private and public sector
- Describe the theory of the firm
- Describe the general equilibrium and welfare economics

#### **(III) Content**

##### **Module 1: The Nature and Scope of Economics**

- 1.1. Introduction: Define the term economics and the learning objectives
- 1.2. The basic economic problem
- 1.3. Efficiency and Equity
- 1.4. Equilibrium and Disequilibrium
- 1.5. The Distinction between microeconomics and macroeconomics
- 1.6. Economic methodology

##### **Module 2: Demand**

- 2.1. Introduction: Definition of demand, demand schedule, demand curve
- 2.2. An individual's demand for a commodity
- 2.3. Market demand
- 2.4. Movements along and shifts of the demand curve
- 2.5. Determinants of demand
- 2.6. Engel curves
- 2.7. The role of advertising and publicity
- 2.8. The product life-cycles
- 2.9. Elasticity of demand
- 2.10. Problems of measurement
- 2.11. Definition of the term utility
- 2.12. Cardinal and ordinal utility
- 2.13. The cardinalist approach
- 2.14. The ordinalist approach
- 2.15. Consumer surplus

### **Module 3: Supply**

- 3.0. Definition of the term “supply” and interpretation of a supply curve
- 3.1 Problems facing suppliers
- 3.2 Determinants of supply
- 3.3 The supply curve
- 3.4 Elasticity of supply

### **Module 4: Production**

- 4.1. The firm and its objectives
- 4.2. Types of business units
- 4.3. The growth of firms
- 4.4 The factors of production
- 4.5 The production function
- 4.6 The short-run and the long-run
- 4.7 .Short-run changes in production
- 4.8 .Long-run changes in production

### **Module 5: Equilibrium and Disequilibrium**

- 5.1 Definition of the terms “equilibrium” and “disequilibrium”
- 5.2 Stable and unstable equilibria
- 5.3 Some application of equilibrium analysis
- 5.4 Disequilibrium analysis
- 5.5 Government intervention in competitive markets
- 5.6 An application of disequilibrium analysis
- 5.7 An introduction to search theory

### **Module 6: Resource Allocation**

- 6.1 Definition of General equilibrium and resource allocation
- 6.2. General equilibrium and welfare maximization
- 6.3. Types of allocation decisions
- 6.4. Methods of resource allocation in a closed economy
- 6.5. Advantages and disadvantages of the different methods of resource allocation
- 6.6. The transition from a command to a market economy
- 6.7. Resource allocation in less developed countries

### **Module 7: Introduction to Welfare Economics**

- 7.1. Definition of welfare economics
- 7.2. Economic efficiency
- 7.3. Welfare criteria
- 7.4. Compensation tests
- 7.5. Cost-benefit analysis

## **Module 8: Theory of the Firm I: Price and Output Determination Under Perfect Competition**

- 8.1.Introduction: Definition of the theory of the firm
- 8.2.Costs of production
- 8.3.Profit maximization
- 8.4.Market structures
- 8.5.The model of perfect competition
- 8.6.Perfect competition and welfare
- 8.7.Define and characterise perfect competition

## **Module 9:Theory of the Firm II: Price and Output Determination Under Imperfect Market Structure**

- 9.1.Definition of monopoly and the different types of monopoly
- 9.2.Monopplistic competiton
  
- 9.3.Oligopoly
- 9.4.Oligopoly and game theory
- 9.5.Contestable markets
- 9.6.Alternatives to profit maximisation
- 9.7.Multinational companies

## **Module 10:Introducing the Public Sector**

- 10.1.Definition of the public sector
- 10.2.Why do we need the public sector?
- 10.3.The size of the public sector
- 10.4.Causes of the long-term growth of public expenditure
- 10.5.The role of the public sector in less developed countries

## **Module 11.Public Goods and Externalities**

- 11.1.Definition of a pure public good, a private good, a merit good and a mixed good and illustrate them with practical examples
- 11.2.Definition of an externality and distinction between between positive and negative externalities
- 11.3.Characteristics of public and private goods and show, with the aid of examples, the linkages between them
- 11.4.Differentiating, on the basis of their characteristics, between the demand patterns of public and private goods
- 11.5.Causes of externalities
- 11.6.Methods of dealing with externalities

## **Module 12:Financing the Public Sector**

- 12.1.Definition of taxation

- 12.3.Principles of taxation
- 12.4.Tax incidence
- 12.5.Excess burden
- 12.6. Direct and indirect taxes: Definition, advantages and disadvantages

**Module 13: The determination of wages**

- 13.1.The essence of wealth and income distribution
- 13.2.The demand for a factor
- 13.3.The supply of a factor
- 13.4.Wage differentials
- 13.5.Imperfections in the labour markets
- 13.6.The influence of labour unions and collective bargaining on wages and jobs
- 13.7.Disequilibrium in the labour market

**Module 14: Rewards to Factors of Production**

- 14.1.Theories of distribution
- 14.2.Rent – the reward to capital
- 14.3.Interest or profit – the reward to capital

Basic Readings

- Hardwick, P., B. Khan and J. Langmead (1996). *An Introduction to Modern Economics, Fourth Edition*. Edinburgh and Singapore. Addison Wesley Longman Limited.
- Slooman, J. (1991). *Economics*. London and New York: Harvester Wheatsheaf Prentice Hall.

**Other Readings**

- Kreps D.M. (1990), *A Course in Microeconomics Theory* Harvester Wheatsheaf: Tokyo
- Lipsey, R.G., P.O. Steiner, D.D. Purvis, and P.N. Courant (1990), *Economics*. New York: Harper & Row.
- Mansfield, E. (1999), *Applied Microeconomics*. W.W. Norton, New York.
- Kreps, D.M. (1990), *A Course in Microeconomics Theory* . Harvester Wheatsheaf: Tokyo

**OEC122: INTRODUCTION TO MACROECONOMICS**

**(I) Brief Course Description**

The objective of this course is to introduce the students to the basic concepts of macroeconomics. It covers the main macroeconomic issues and policy objectives, measurement of a country's gross domestic product and the link between national income statistics and economic welfare.

## **(II) Course objectives**

After going through the course, the student should be able to:

- Define macroeconomics
- Recognise the need for economic growth
- List causes and types of inflation and unemployment
- Describe the need and importance of national income
- To recognize balance of payments and exchange rates
- Describe importance of trade in the economy
- Explain contemporary macroeconomic issues

## **(III) Course content**

### **Module 1: Introduction**

- 1.1. The Scope of Macroeconomics: Macroeconomic Issues and Policy Objectives
- 1.2. The Problem of Aggregation
- 1.3. The underground Economy

### **Module 2: Economic Growth**

- 2.1. The Distinction between Actual and potential Growth
- 2.2. Growth and the Production Possibility Curve
- 2.3. Economic Growth and the Trade Cycle
- 2.4. Causes of Actual Growth
- 2.5. Causes of Potential Growth
- 2.6. Policies to Achieve Growth
- 2.7. The Role of Investment

### **Module 3: Unemployment**

- 3.1 The Meaning of Unemployment
- 3.2 The Duration of Unemployment
- 3.3 The Costs of Unemployment
- 3.4 Disequilibrium Unemployment: Definition, Causes
- 3.5 Policies to Tackle Disequilibrium Unemployment
- 3.5 Equilibrium ("Natural") Unemployment: Definition, Causes
- 3.6 Policies to Tackle Natural Unemployment

### **Module 4. Inflation**

- 4.1 Definition

- 4.2 Costs of Inflation
- 4.3 Aggregate Demand and Supply and the Level of Prices
- 4.4 Demand-pull Inflation
- 4.5 Cost-push Inflation
- 4.6 The Interaction of Demand-pull and Cost-push Inflation
- 4.7 Structural (Demand-shift) Inflation
- 4.8 Expectations and Inflation
- 4.9 Policies to Tackle Inflation

#### **5.0.The Balance of Payments and the Exchange Rates**

- 5.1.The Balance of Payments Accounts
- 5.2.The Rate of Exchange
- 5.3.Floating Exchange Rates
- 5.4.Government Intervention in the Foreign Exchange Market

#### **Module 6: The Relationship Between the Four Macroeconomic Objectives**

- 6.1.Aggregate Demand and the Short-term Relationship between the Four Objectives
- 6.2.The Phillips Curve
- 6.3.The Problem of “Stagflation”

#### **Module 7: Measuring National Income**

- 7.1.The Three Ways of Calculating the Gross Domestic Product (GDP)
- 7.2.The Product Method of Measuring GDP: Definitions and Qualifications
- 7.3.The Income Method of Measuring GDP: Definitions and Qualifications
- 7.4.The Expenditure Method of Measuring GDP: Definitions and Qualifications
- 7.5.National Income and Economic Welfare: Do National Income Statistics give a Good Indication as to a Country’s Standard of Living?

#### **Module 8: Macroeconomic Ideas**

- 8.1.Macroeconomic controversies
- 8.2.The circular flow of goods and incomes
- 8.3.Classical macroeconomics
- 8.4.The Keynesian revolution
- 8.5.Modern developments

#### **Module 9:The simple Keynesian analysis of National income, employment and inflation**

- 9.1.Background to the theory
- 9.2.The determination of national income
- 9.3.The simple Keynesian analysis of unemployment and inflation
- 9.4.The Keynesian analysis of the trade cycle

#### **Module 10.Fiscal Policy**

- 10.1.The Nature of Fiscal Policy
- 10.2.The Effectiveness of Fiscal Policy

### **Model 11: Money and Interest rates**

- 11.1. Money: Definition, Functions, and Characteristics
- 11.2. The Role of Money in the Economy
- 11.3. The Financial System in Tanzania
- 11.4. The Supply of Money
- 11.5. The Demand for Money
- 11.6. Equilibrium in the money market

### **Module 12: Monetary Policy**

- 12.1. Attitudes towards Monetary Policy
- 12.2. Varieties of Monetary Policy
- 12.3. Problems of Monetary Policy

### **Module 13: Supply-side policies**

- 13.1. The supply-side problem
- 13.2. Market-oriented supply-side policies
- 13.3. Prices and incomes policy
- 13.4. Regional policy
- 13.5. Industrial policy

### **Module 14: International Trade**

- 14.1. The Advantages of Trade: Specialisation as the basis of trade, absolute advantage, comparative advantage, the law of comparative advantage
- 14.2. Arguments for restricting trade
- 14.3. Preferential trading
- 14.4. The East African Community

### **Basic Readings**

- Hardwick, P., B. Khan and J. Langmead (1996). *An Introduction to Modern Economics, Fourth Edition*. Edinburgh and Singapore. Addison Wesley Longman Limited.
- Slooman, J. (1991). *Economics*. London and New York: Harvester Wheatsheaf Prentice Hall.
- Dornbusch R., S. Fischer and R. Startz (1994), *Macroeconomics*. 8<sup>th</sup> Edition. Tata McGraw Hill.
- William J. Baumol and Alan S. Blinder (1982), *Economics Principles and Policies*, Harcourt Brace Javanovich.
- Lipsey, R.G., P.O. Steiner, D.D. Purvis and P.N. Courant (1990), *Economics*. 9<sup>th</sup> Edition. New York: Harper and Row.

### **Other Readings**

- P. A. Samuelson and W. Nordhaus (1992), *Economics*. McGraw Hill.
- S. M. Wangwe (1983), *Social Accounting Principles and Applications* University of Dar es Salaam.
- Bank of Tanzania, *Economic and Operations Reports & Economic Bulletins*, various
- President's Office Planning and Privatization (POPP), *Economic Survey*, various.

## **OEC 123: INTRODUCTION TO ECONOMIC STATISTICS AND MATHEMATICS FOR ECONOMISTS**

### **(I) Brief Course Description**

This course aims at giving students the basic understanding of the methods associated with basic mathematics and statistics required for economic analysis.

### **(II) Course Objectives**

After completing the course, the students should be able to :

- Recognise the importance of algebra and set theory
- Describe the need of logarithmic functions in economic analysis
- Use calculus in economic analysis
- Apply graphical analysis in economics

### **(III) Content**

#### **Module 1. Elementary Properties of sets**

##### 1.1 Set Operations

- Union
- Intersection
- Complement
- Subset
- Empty and Universal sets
- Venn diagrams

#### **Module 2. Functions**

##### 2.1 Domain and range of a function

##### 2.2 Composite functions, Inverse functions

#### **Module 3. Indices and Logarithms**

##### 3.1 Indices

- Positive and negative indices
- Laws of indices
- Zero and unity index
- Power raised to power
- Fractional index

##### 3.2 Logarithmic Functions

- Definition of logarithms and its restrictions
- Laws of operations of logarithms
- Change of base

- Antilogarithms
- Operations with logarithms

### 3.3 Applications

- Graphs of the exponential to base  $a$

### **Model 4: Elements of choice and chance**

- 4.1. Choice and chance
- 4.2. The Binomial theorem for positive indices
- 4.3. The relationship between binomial coefficients
- 4.3. Pascals triangle
- 4.4. Permutations and combinations

### **Model 5: Inequalities**

- 5.1. Axioms of order
- 5.2. Basic processes
- 5.3. Linear and quadratic inequalities
- 5.4. Solution of a system of inequalities
- 5.5. The concept of the modulus
- 5.6. Simple linear programming (LP) problems as applications of linear inequalities.

### **Model 6. Differential Calculus**

- 6.1. Differentiation of sum, product and quotient
- 6.2. The chain rule for composite functions
- 6.3. Determination of stationary values
- 6.4. Graphs and small increments

### **Model 7. Integral Calculus**

- 7.1. Integration as the limit of sum
- 7.2. approximate evaluation of integrals by the trapezium rule
- 7.3. Integration as the inverse of differentiation
- 7.4. The indefinite and definite integrals and applications to areas
- 7.5. Standard techniques of integration linked with those for differentiation only.

### **Basic Readings**

Stirling D.S.G.(1990) Mathematical Analysis: A fundamental straight forward approach. Ellis Hoswood  
 Apostol, M(1981) Mathematical Analysis, Addison – Wesley Publishing Company  
 Bers, L. and Kaval, F (1976), Calculus , Holt, Rinehart and Winston  
 Stephenson, G(1998), Mathematical Methods for Science students. Longman  
 Williams I.P.(1972). Matrices for scientists

### **Basic Readings**

Stirling D.S.G.(1990) Mathematical Analysis: A fundamental straight forward approach.  
Ellis Hoswood  
Apostol, M(1981) Mathematical Analysis, Addison – Wesley Publishing Company  
Bers, L. and Kaval, F (1976), Calculus , Holt, Rinehart and Winston  
Stephenson, G(1998), Mathematical Methods for Science students. Longman  
Williams I.P.(1972). Matrices for scientists

## **OEC 124: Social Science Research Methods**

### **(I)Course description**

This is an introductory course to social science research methods. The course will introduce students to the subject matter of social science research by teaching the meaning of research and the historical overview of research in social sciences as well as the types, subject matter, aims, principles and uses of social research. Theory and processes of social research will be covered including techniques of data collection for social science scientists.

### **(II)Course Objectives**

To introduce students to the principles of sampling, data analysis and basic statistics for social research. .

### **(III)Course Outline**

#### **Module 1. Introduction to Social Science Research**

- 1.1 The meaning of research
- 1.2 historical overview of research in social sciences
- 1.3 Research in Natural and social sciences
- 1.4 Development of social science research methods
- 1.5 Types and designs of social research
  - Quantitative and qualitative research designs
  - Basic and Applied research
  - Participatory action research
  - Comparative research
- 1.6 the subject matter of social research
- 1.7 The aims, principles and functions of social research

#### **Module 2. Theory and Processes of social research**

- 2.1 The meaning of theory
- 2.2 Theory construction and theory testing
  - Inductive approach to theory construction
  - Deductive approach to theory testing
  - Falsification of theory
- 2.3 Relationship between theory and empirical research
  - Contribution of theory to empirical research

- Contribution of empirical research to theory

## **2.4 Social research as a process**

- Steps in research process
- Research proposal- main features
- Ethics in social research

## **Module 3. Research methods and Techniques**

### 3.1 Why study research methods and techniques?

### 3.2 Experiment method

- Hypothetical deductive research
- Field experiment

### 3.3 Social surveys

- Constructing and administering interviews
- Constructing and administering questionnaires

### 3.4 Observation method

Types and techniques of observation

### 3.5 Documents and visual data

### 3.6 Focus Group Discussion

## **Module 4. Sampling Techniques in Social Sciences Research**

### 4.1 Definition of concepts in sampling.

### 4.2 Need for sampling in field research

### 4.3 Non – random sampling procedures

- Haphazard sampling
- Purposive sampling
- Snowball sampling
- Quota sampling

### 4.4 Random sampling Procedures

- Simple random sampling
- Stratified random sampling
- Systematic random sampling
- Cluster sampling
- Multi stage and multi – phase sampling

## **Module 5. Data analysis and Basic Statistics for Social science research**

### 5.1 Statistics in social life

- Validity of the statistical method
- Statistical reasoning

### 5.2 Level of measurement

#### 5.2.1 Scale of measurement

- Ordinal scale

- Nominal scale
- Interval scale
- Ration scale

#### 5.2.2 Discrete and Continuous Variables

#### 5.3 Data presentation

- Frequency distribution
- Graphs

#### 5.4 Summary measures

- Measures of central tendency: the mean, median and mode
- Measures of variation: The range and variance

#### 5.5 Measurement of relationship between variables

- Concepts of statistical association
- Correlation and Regression

### **Basic Readings**

Kothari, C.R.(1990). Research Methods, 2<sup>nd</sup> edition, Rourledge, London.

Dooley (2003), social research method.Prentice – Hall of India.New Delhi.

Bryman, A, (2001), Social science research methods.OUP.Oxford.

Pons, V.ed, (1992) Introduction to social research , DUP, Dares Salaam

Babbie, E., (1992), The Practice of social research, 6<sup>th</sup> Edition. Wadsworth Publishers.Belmont, California.

Bryman, A.(1988). Quantity and Quality in social research. Unwin Hyman, London.

Blalock, H.(1979). Social Sciences Statistics. MacGraw Hill, New York.

Kirk, R.(1978) Introductory Statistics.Wadworth Publishing Company, Belmont. California.

Sarantakos, S.(1993). Social Research. The Macmillan Press. Houndmills Basingstoke, Hampshire.

### **Other Readings**

Babbie, E., (1992), The Practice of social research, 6<sup>th</sup> Edition. Wadsworth Publishers.Belmont, California.

Bailey, K. (1987) Methods of social science research, Free press, London

Black, T.R. (1993), Evaluating social science research: An introduction, Sage Publicatiions,. London

Bulmer, M. ed, (1984), Sociological Research Methods, MacMillan. Hampshire.

Hughes, J(1993), Philosophy of social research 2<sup>nd</sup> ediction, Longman, London.

McNeil, P. (1990), Research Methods, 2<sup>nd</sup> edition, Routledge, London.

Singleton, R, et al (1988). Approaches to social research CUP

Creswel, J.W. (1994), Research Design, Quantitative and Qualitative approaches. Sage Publications, Thousand Oaks, California

### **OEC 125 African Economic Problems**

#### **(I)Course description**

The course aims at exposing students to the major economic challenges facing African countries. The scope ranges from poverty issues to trade and economic planning. The course initiates students into a thinking process of solving identified challenges.

## **(II) Course objectives**

After going through this course the student should be able to:

- Explain the nature and scope of development economics and its relevance in understanding less developed countries (LDCs).
- Explain the meaning of economic development and distinguish it from economic growth
- Identify the major economic problems affecting less developed countries and some of the policy options for solving these problems.
- Explain how less developed countries' economies have been affected by developed countries through their involvement in international trade and finance and how regional cooperation between LDCs themselves can solve these problems
- Explain why it is necessary to plan LDCs' economies, the problem involved and solutions to these problems.

## **(III) Contents**

### **Module 1: Introduction**

- 1.1 Central problem of an economy
- 1.2 Economic systems and resource allocation
- 1.3 Development and underdevelopment

### **Module 2: Economic growth and poverty**

- 2.1 The growth controversy
- 2.2 Economic growth and economic development
- 2.3 Measures of economic growth and economic development
- 2.4 Poverty and income distribution

### **Module 3: Population growth and development**

- 3.1. Theories on population growth
- 3.2. Population growth and development
- 3.3 Employment and unemployment
- 3.4 Rural urban migration

### **Module 4: Agriculture and development**

- 4.1. Importance of agriculture in African countries
- 4.2. Agriculture structures and stagnation in Less developed countries
- 4.3. Need for "green revolution"

### **Module 5: Education and manpower development**

- 5.1. Education and development linkage
- 5.2. main challenges of education and manpower in Africa
- 5.3. Brain drain and its effect on economies of African economies

### **Module 6: International trade and development**

- 6.1 Introduction to international trade and developemnt
- 6.2 The traditional theory of international trade
- 6.3 The Neoclassical model of international trade
- 6.4 The balance of payments. Definitions and concepts
- 6.5 The balance of payments and exchange rates
- 6.6 The role of foreign capital in LDCs: Issues and controversies
- 6.7 Economic integration: An outward and inward looking staregy and its potential benefits

### **Module 7: Development planning**

- 7.1. Developemnt planning: Theory and practice
- 7.2. The principles of economic planning
- 7.3 The practice of economic planning in less developed countries
- 7.4. The future of development planning in LDCs.

### Recommeded readings

- (1) Todaro, M.P. Economics for a adeveloping World, London Longman. 1992
- (2) Livingstone , I and M. Economics for Eastern Africa. London and Nairobi, 1980.
- (3) Tonny Killick Policy economics: A textbook of applied economics for developing countries. Heinamann Education Books, 1981
- (4) Owino, P.S.; A.Kilonzo and B. Mganda- African Economic Problems (BEC 103).University of Nairobi study manual.

## **SECOND YEAR COURSES**

### **OEC221 INTERMEDIATE MICROECONOMIC ANALYSIS**

#### **(I) Course Description**

This is an intermediate course aimed at equipping students with more advanced skills in microeconomic analysis. The course combines calculus techniques and graphical

approaches in analysis. The candidate is expected to be familiar with standard literature on calculus and optimization as well as in working with functions of more than one variable. The course will help students get a better feel and usefulness of economic theory.

## **(II) Course Objectives**

After completing this course, the student will be able to :

- Describe the optimizing behaviour of individuals in their roles as consumers and producers.
- Compare the output and supply side of final product markets.
- State price and output determination in various market situations.
- Describe how output is distributed through factor markets
- Compare issues of efficiency and exchange .
- Recognise market failures, public goods and externalities.

## **(III) Course Content**

### **Module 1: Introduction**

- 1.1 The Law of Scarcity
- 1.2 Rational Economic Agents
- 1.3 Positive and Normative Economics
- 1.4 The nature and role of Theory

### **Module 2: Theory of consumer behaviour**

- 2.1 Preference and the Rational Consumer
- 2.2 Axioms of Consumer Behaviour
- 2.3 Utility Functions
- 2.4 The Budget Constraint
- 2.5 Consumer Equilibrium
- 2.6 Changes in Prices and Income (the Slutsky equation)
- 2.7 Consumer Surplus

### **Module 3: Characteristics of Market Demand**

- 3.1 The Market Demand Function
- 3.2 Elasticities of Demand (Price, Income, Cross, etc)
- 3.3 Substitution
- 3.4 Equilibrium in Individual Markets

### **Module 4: Theory of Production and Costs**

- 4.1 Theory of Production
  - 4.1.1 Production functions and their properties (long-run and short-run)
  - 4.1.2 Production expansion path and production possibilities frontier

(PPF)

- 4.1.3 Elasticity of Substitution
- 4.2 Theory of Costs
  - 4.2.1 Types of costs (Short-run and long-run costs)
  - 4.2.2 Cost survey (short-run and long-run)
  - 4.2.2 Industry cost and supply functions

### 4.3. Elasticities of Supply

#### **Module 4: Theory of Market Structures**

- 1.1 Perfect competition
- 1.2 Monopoly
- 1.3 Monopolistic competition,
- 1.4 Oligopoly and Game theory
- 1.5 Monopsony
- 1.6 Non price competition

#### **Module 5: The Nature of General Equilibrium**

- 2.1 Pure exchange economy (characterization)
- 2.2 Edgeworth Analysis and other Graphical Methods
- 2.3 Algebra of Equilibrium
- 2.4 Walras Law
- 2.5 Concepts in Efficiency and Pareto Optimality
- 2.6 First Theorem of Welfare Economics (Efficiency and Pareto optimality)
- 2.7 Second Theorem of Welfare Economics (Efficiency and Pareto optimality)
- 2.8 Introducing Production in the Model (two-sector model)
- 2.9 Introducing Prices and Costs

#### **Module 6: Welfare Economics**

- 3.1 Aggregation of preferences
- 3.2 Social welfare functions
- 3.3 Welfare maximization
- 3.4 Individualistic social welfare functions
- 3.5 Fair allocation
- 3.6 Envy and Equity.

#### **Module 7: Externalities, Public Goods and Public Choice**

- 4.1 Incorporating Public Goods
- 4.2 What are Externalities
- 4.3 Dealing with Externalities
- 4.4 Government Regulations
- 4.5 Public Choice

#### **Basic Readings**

Gould, J.P. and C.E Ferguson (1980), *Microeconomic Theory*. 4<sup>th</sup> Edn. Homewood:  
Kreps, D.M. (1990), *A Course in Microeconomics Theory*. Tokyo: Harvester Wheatsheaf.  
Mansfield, E. (1982), *Microeconomic Theory and Applications*. New York: Richard D.  
Irwin.

#### **Other Readings**

Varian, H. R. (1993), *Intermediate Microeconomics: A Modern Approach*, W. W. Norton  
and Company.  
Mansfield, E. (1997), *Applied Microeconomics*. W. W. Norton and Company.

Silverberg E. (1990), *The Structure of Economics: A Mathematical Analysis*  
McGrawHill: New York.

Ray, D. (1997), *Development Microeconomics*. Princeton University Press.

## **OEC 222: INTERMEDIATE MACROECONOMICS**

### **(I) Course Description**

This is an intermediary course aimed at exposing students to a more rigorous analysis of macroeconomics. The course will cover a wide range of topics including national income and its determination, equilibrium aggregate demand and supply, consumption and investment theories, welfare economics and public sector economics. The main topics covered include The Foreign Sector and Balance of Payments, Aggregate Growth Models, Employment/Unemployment, Business Cycle Theories, and topics in Stabilization and Adjustment Policies. The ultimate objective is for the successful candidate to be able to undertake basic intermediate level macroeconomic analysis.

### **(II) Course Objectives**

After completing this course the student will be able to:

- Describe national income and its determinants
- Recognise aggregate and aggregate supply equilibrium
- Describe consumption and investment theories
- Understand the link between macroeconomic theory and policy

### **(III) Course Outline**

#### **Module 1: Review of National Income and Product Accounts**

- 1.1 Principles behind the accounts
- 1.2 Circular flow of product and income
- 1.3 GNP on product side
- 1.4 GNP by type of income, and National Income.
- 1.5 Disposition of National Income.
- 1.6 The government sector in the Accounts
- 1.7 Summary of GNP identity
- 1.8 GNP as a welfare measure

#### **Module 2: National Income Determination: The Static Equilibrium Model**

- 2.1 Demand equilibrium: income and interest rate (IS-LM framework) product market, money market).
- 2.2 Introduction to monetary and fiscal policy (shifts in the IS-LM framework).
- 2.3 Equilibrium output and the price level, the classical case.
- 2.4 Output and the price level: Labour supply and the money wage.
- 2.5 Unemployment and Wage Rigidity
- 2.6 Equilibrium in the basic static model

#### **Module 3: Sectoral Demand Functions and Extension on the Static Model**

- 3.1 Consumption
- 3.2 Investment.
- 3.3 Monetary and Fiscal Policy
- 3.4 Foreign Sector

#### **Module 4: The Foreign Sector and Balance of Payments**

- 1.1 Trade Accounts (Goods and Services)
- 1.2 The Capital Account
- 1.3 Foreign Reserves
- 1.4 The Debt Issue
- 1.5 Overall Balances

#### **Module 5: Growth and Employment**

- 2.1 Inflation, Productivity and the Phillips curve
- 2.2 Keynesian versus Monetarists approaches
- 2.3 Introduction to Growth; Models (basic assumptions, Harrod-Domar conditions); basic neo-classical model (Solow-Swan), extensions of the basic model.
- 2.4 Business Cycle Theories

#### **Module 6: Stabilization and Structural Adjustment Policies**

- 3.1 Logic and Content of Stabilization and Adjustment
- 3.2 Fiscal and monetary policies and instruments
- 3.3 Non-fiscal and non-monetary instruments
- 3.4 Foreign Sector and Balance of Payments

#### **Basic Readings**

- Branson, W.H. (1993), *Macroeconomics: Theory and Policy*. Harper and Row: NY.
- Dornbusch R., S. Fischer and R. Startz (1994), *Macroeconomics*. 8th Edition. Tata cGraw Hill.
- Sachs J. D. and F. B. Larrain (1993), *Macroeconomics in the Global Economy*. Eglewood Cliffs, New Jersey Printice Hall Inc.
- Gould, J.P. and C.E Ferguson (1980), *Microeconomic Theory*. 4<sup>th</sup> Edn. Homewood:
- Kreps, D.M. (1990), *A Course in Microeconomics Theory*. Harvester Wheatsheaf: Tokyo
- Mansfield, E. (1982), *Microeconomic Theory and Applications*. New York: Richard D. Irwin.

#### **Other Readings**

- Dernburg, T.F. (1985), *Macroeconomics*. 7th Edition. McGraw-Hill.
- Sachs J. D. and F. B. Larrain (1993), *Macroeconomics in the Global Economy*. Eaglewood Cliffs, New Jersey Printice Hall Inc.
- Claassen, E. M. (1996), *Global Monetary Economics*. Oxford University Press

The course is set in four blocks. The first block, named simply A Review of Neo-Classical Theories discusses contributions by such notable economic historians like Rostow, Lewis, Nurkse and Todaro, and "great" theories as Vicious Cycle of underdevelopment, Stages of Growth theory, theory of limiting factors, etc. The second block relates to what is simply called structural approaches to Analysis of Development and Underdevelopment. Here some notable names are also considered: K. Marx, A. G. Frank, Samir Amin and Emmanuel. Such theories include Dependency theory, Theory of Periphery Capitalism, Theory of Unequal Exchange and the like. A short topic on Aid, Foreign Investment and Economic Development is also included as the third Block, whereas the fourth block is on Investments and Development. Applications of Theories come at the end.

## **(II)Course Objectives**

The main objectives of the course are:

- To enable students understand the challenges of development
- To understand the different theories explaining development
- To enable students to be conversant with contemporary development issues facing LDCs
- To apply knowledge of development economics in economic policy making.

## **(III)Course Outline**

### **Module 1. An overview of Development Economics**

1. The nature of development economics
2. Why study development economics?some critical questions
3. The important role of values in development economics

### **Module 2: A Review of Neo - Classical Theories**

- 1.1 Stage Theories of Development (Rostow' theory)
- 1.2 Theories of Dualism (Lewis' Model).
  - 1.3 Theories of Vicious Circle: Simple vicious circle theory, Nurkse's theory, Todaros Model of vicious circle.
  - 1.4 Theories of Limiting Factors.

### **Module 3: Structural Approaches to Analysis of Development and Underdevelopment.**

- 2.1 The structuralist (Reformist) Approach
  - 2.2 The Marxian Dependency approaches: A.G. Frank's model of underdevelopment, Neo-marxist Theories of periphery capitalism (Emmanuel's Theory of Unequal Exchange and Samir Amin's model of unequal Development).
  - 2.3 Neo-marxian Theories of Underdevelopment (L. Cliffe, and Samir Amin.

### **Module 4: Aid, Foreign Investment and Economic Development**

1. The Development Assistance Debate
2. Conceptual and measurement problem

3. Public aid
4. Why donors give aid
5. Why LDCs recipients accept aid
6. The effects of aid
7. Private foreign investment: some Pros and Cons for Development
8. Multinational Corporations: Size, Patterns and Trends

### **Module 5: Investments and Development**

- 4.1 Global Investments and their linkages to Development.
- 4.2 Investment flows to Developing Countries

### **Module 6: Diverse structures and common characteristics of developing countries**

1. Defining the developing countries
2. The structural diversity of developing countries
3. Size and income level
4. Physical and human resources
5. Relative importance of the public and private sectors
6. Industrial structure
7. External dependence
8. Common characteristics of developing countries

### **Module 7: Historic growth and contemporary development: Lessons and controversies**

1. Capital Accumulation
2. Population and Labour Force Growth
3. Technological Progress

### **Module 8: Contemporary Models of Development and Underdevelopment**

1. The New Growth Theory: Endogenous Growth
2. Motivation for the New Growth Theory
3. The Romer Model
4. Criticisms of the New Growth Theory
5. Underdevelopment as a condition failure
6. Starting Economic development
7. The big push model
8. Kremer's O-Ring theory of economic development
9. The O- Ring Model
10. Implications of the O- Ring Theory

### **Module 9: Poverty, Inequality and Development**

1. Measuring Inequality
2. Measuring Absolute Poverty
3. Is inequality bad?
4. Dualistic development and shifting Lorenz curves
5. Kuznet's inverted -U hypothesis
6. Growth and Inequality

7. Economic characteristics of poverty groups
8. Rural poverty
9. Women and poverty
10. The range of policy options
11. Areas of intervention

**Module 10: Population Growth and Economic Development: Causes, Consequences, and Controversies**

1. The Malthusian Population Trap
2. Criticisms of the Malthusian Model
3. The Microeconomic Household Theory of Fertility
4. The Demand for Children in Developing Countries
5. Implications for Development and Fertility
6. The Consequences of high fertility: Some conflicting opinions
7. Population growth is not a real problem
8. A desirable Phenomenon
9. Population growth is a real problem
10. Consequences of population growth

**Module 11: Urbanization and rural – urban migration: Theory and Policy**

1. The Migration and Urbanization Dilemma
2. The Role of Cities
3. Efficient Urban Scale
4. The Urban Giantism Problem
5. First City bias
6. Causes of Urban Giantism
7. The urban informal sector
8. Policies for the urban informal sector
9. Women in the informal sector
10. Urban unemployment
11. The Todaro model of Rural – Urban Migration

**Basic Readings**

- Todaro, M. and Smith S.C. (2003) *Economic Development*. Pearson Education limited. 8<sup>th</sup> Edition
- Agenor , P.R., (2000), *The Economics of Adjustment and Growth*. San Diego: Academic Press.
- Meier, G.M. (1976), *Leading Issues in Economic Development*. O.U.P.: New York.
- Todaro, M. (1985), *Economic Development in the Third World*. London: Longman Publishing Group.
- Chenery, H. and T.N. Srinivasan, eds. (1988), *Handbook of Development Economics*. North-Holland, Vol. 2.

**Other Readings**

- Barro, R.J.,(1997), *Determinants Of Economic Growth*, Cambridge, MIT Press.

- Chhibber A. and S. Fischer S., eds. (1991), *Economic Reforms in Sub-Saharan Africa*, World Bank, Washington D.C.
- Ray, (1998), *Development Economics*, Princeton University Press.
- Perkins, G.M. *et al.* (1996), *Economics of Development*, W.W. Norton.
- Krugman, P.. (1992), "Toward a Counter-counter Revolution in Development Theory." In *Proceedings of The World Bank Annual Conference of Development Economics*. World Bank, Washington, D.C.
- Baddeley, M. (2003), *Investment: Theories and Analyses*. Palgrave.

## **OEC 224: MATHEMATICS FOR ECONOMISTS**

### **(I) Course Description**

This is the first year Quantitative Methods Course for economists at the undergraduate level. Four broad topics are covered by this course which builds on the introductory statistics and mathematics of the first year of the programme. The course is aimed at equipping students with tools of economic analysis, which are essential for other economics courses and courses at subsequent levels, both undergraduate and graduate.

### **(II) Course objectives:**

Main objective include:

- Equipping students with basic mathematical skills for economic analysis

### **(III) Course Outline**

#### **Module 1: Introduction**

- 1.1 The Nature of Mathematical Economics and Quantitative methods
- 1.2 Economic Models
- 1.3 The Algebra of Sets and Set Functions

#### **Module 2: Calculus and Applications**

- 2.1 Differential Calculus and Application
- 2.2 Integral Calculus and Application

#### **Module 3: Optimization and Economic Analysis**

- 3.1 Unconstrained Optimization
- 3.2 Constrained Optimization
- 3.3 Application of Optimization Techniques

#### **Module 4: Introduction to Difference and Differential Equations**

- 4.1 First-order differential equations
- 4.2 First-order difference equations
- 4.3 Applications in Economics

#### **Module 5: Matrix Algebra & Linear Modeling**

- 1.1 Properties of Matrices
- 1.2 Determinant of Non-singular Matrices
- 1.3 Matrix inversion
- 1.4 Linear Models in Economics.

#### **Module 6: Programming and Economic Analysis**

- 2.1 Standard LP Model

- 2.2 Estimation Approaches
- 2.3 Duality Theorems
- 2.4 Uses in Economics.

### **Module 7: Input-Output Model and Social Accounting Matrices**

- 3.1 The standard static I-O Model and its Applications
- 3.2 The Dynamic Model
- 3.3 SAMs and their uses/links to economic modeling
- 3.4 Application in economics.

#### **Basic Readings**

- Chiang, A.C. (1984), *Fundamental Methods of Mathematical Economics*. 3rd Ed. McGraw-Hill
- Canavos, G.C. and D.M. Miller (1999), *An Introduction to Modern Business Statistics*. 2<sup>nd</sup> edition. Duxbury Press.

#### **Other Readings**

- Loomba, N.P. (1978), *Linear Programming: An Introductory Analysis*. McGraw-Hill Schaum Series (1992), *Introduction to Mathematical Economics*, McGraw-Hill.
- Sydsaeter, K. (1986), *Topics in Mathematics Analysis for Economists*. Academic Press.
- Sydsaeter, K. and P. Hammond (1994), *Mathematics for Economists*. Academic Books, North Holland, Amsterdam

## **OEC226: ECONOMETRICS**

### **(I) Course Description**

This course introduces the candidate to the scope of econometrics and the logical linkages to probability and statistical inference. .

### **(II) Course objectives:**

- To enable students use econometrics in economic research

### **(III) Course content**

#### **Module 1: Introduction: The Subject Matter**

- 1.1 Definition, Scope and Division of Econometrics.
- 1.2 Methodology of Econometric Research.
- 1.3 Model Specification and applied Research.
- 1.4 Modeling with econometrics

#### **Module 2: Probability and Statistical Inference.**

- 2.1 Introduction to Basic Probability Concepts
- 2.2 Approaches to Probability

- 2.3 Random Variables-Discrete and Continuous
- 2.4 Probability Distributions: Joint, Marginal, Conditional, Expected Values, Variance, etc.
- 2.5 Standard Probability Distribution: Density Functions, Discrete, Binomial, Continuous Normal, etc.

**Module 3: Introduction to Regression Methods.**

- 3.1 The OLS Method
- 3.2 Maximum Likelihood
- 3.3 Method of Moments
- 3.4 Finite Properties of Estimators (BLUE)

**Module 4: Hypothesis Testing**

- 4.1 Statistical Tests of Significance of the Estimates.
- 4.2 Extensions of the Simple Hypotheses

**Module 5: Multiple Regression Analysis**

- 1.1 OLS, ANOVA
- 1.2 Hypothesis Testing
  - 1.3 Econometric Problems: Multicollinearity, Autocorrelation, Heteroskedasticity
- 1.4 Simultaneous Equation Models

**Module 6: Hypothesis Testing**

- 2.1 Single Population Parameters
- 2.2 Confidence intervals
- 2.3 Single linear Combination of the Parameters.

**Module 7: Econometric Problems**

- 2.1 Autocorrelation
- 2.2 Multicollinearity
- 2.3 Heteroscedasticity
- 2.4 Errors in Variables

**Module 8. Extension: Simultaneous Equation Model**

- 3.1 The Nature of Simultaneous Equation Models
- 3.2 Simultaneity Bias in OLS
- 3.3 Identifying and Estimating a Structural Equation
- 3.4 System With More than Two Equations
- 3.5 Simultaneous Equation With Time Series Data

**Basic Readings**

- Gujarati, D. (2003), *Basic Econometrics*. McGraw-Hill
- Wooldridge, J.M. (2003), *Introductory Econometrics: A Modern Approach*. Thompson South Western.
- Canavos, G.C and D.M Miller (1999), *An Introduction to Modern Business Statistics*. 2<sup>nd</sup> Edition. Cole Publishing Company.

Watson, J.H. and M.W. Stock (2003), *Introduction to Econometrics*. Addison-Wesley.

**Other Readings**

Koutsoyiannis, A. (1977). *Theory of Econometrics*. 2<sup>nd</sup> Edition. London and Basingstoke: The MacMillan Press Ltd.

Mukherjee, C., H. White and M. M. Wuyts (1998), *Econometrics and Data Analysis for Developing Countries*. London and New York: Routledge.

Ramanathan, R. (1992), *Introductory Econometrics with Applications*. 2<sup>nd</sup> Edition. Forth Worth, San Diego and New York: The Dryden Press.



## **OEC 225- ECONOMIC POLICIES, PLANNING AND PRGOGRAMMING**

### **(I) Course Description**

Two blocks will make up this course, as follows; Typology of Multisectoral Models, Input Output Models, Social Accounting Matrix, (SAM), Growth models, Computable General Equilibrium Models and Institutions will make the last block

### **(II) Course Objectives**

The course aims at equipping economists with tools and application of policy analysis for informed decision making on economic issues.

### **(III) Course outline:**

#### **Module1. The planning Mystique**

- 1.1 The nature of development planning
- 1.2 Planning in mixed developing countries
- 1.3 The rationale for developemt planning
- 1.4 The planning process

#### **Module 2. Typology of Multi sectoral Models**

- 1.1 Mathematical structures
- 1.2 Policy Issues addressed in standard Models
- 1.3 Analystic, Stylized and applied Models

#### **Module 3. Input – Output and Social Accounting Matrix(SAM)**

- 1.4 Social Accounting Matrix
- 1.5 Linear Models in a SAM Framework
- 1.6 Prices and Static SAM Models
- 1.7 The Polak Model
- 1.8 Financial Programming Models
- 1.9 Linear Dynamic Models
- 1.10The Tanzania SAM 2000

#### **Module 4.Growth Models:**

- 4.1. Use of models in Policy analysis
  - Classical Models
  - Harrod Domar Model
  - Gap Models
  - Neoclassical Model
  - Harris- Todaro Model
  - Senn- Dobb Choice of Technique Model
  - Structuralist Models
  - New Growth Models

## **Module 5. Computable General Equilibrium Models:**

### **5.1 The structure of a CGE Model;**

- A Neo – Classical, Closed economy,
- Extending the neo classical CGE model,
- Static Vs Dynamic CGE model
- Equilibrium models vs Econometric models

## **Module 6.0 Institutions: Development Political Economy**

- Modelling institutions and Growth
- Growth – Poverty Nexus
- Institutions and Path Dependency
- Government Failure and the Resurgent Preference for Markets over Planning

### **Basic readings**

Robinson, S(1998) “ Multisectoral models” In Chenery and T.N. Srivivasan (eds)  
Balsvik, R. and Brendemoen (1994), A computable General Equilibrium Model for Tanzania.

Thurlow, J.; P.Wobst, Poverty (2003) Focused Social Accounting Matrix for Tanzania

## **YEAR THREE (CORE COURSES)**

### **EC322: MONETARY ECONOMICS**

#### **(I) Course Description**

This is an applied course in Money, Banking and Financial Development. four substantive areas are covered, it covers topics like the nature and functions of money and institutions of a financial system. Other topics include Financial Development and Money in an International Setting. The course offers a systematic of monetary theories with the view to produce economists well versed in money and its functions, Financial Development as well as in the role of money in the conduct of monetary policy in a macroeconomic framework.

#### **(II) Course Objectives**

The course is intended to expose students to both theory and practical (policy) aspects of money in the economy, functions of banks and other financial institutions.

#### **(III) Course content**

##### **Module 1: Introduction**

1.1 Nature, history, origin, evolution, functions, importance and definitions of money.

##### **Module 2: Financial Development**

2.1 Models of financial development

2.2 Micro-economic and institutional aspects of financial Development

2.3 The Informal Financial Sector

2.4 Policies of financial repression and financial restriction.

2.5 Financial intermediation

##### **Module 3: Evolution of Tanzania Monetary and Financial System**

3.1 Money and financial intermediaries in the pre-1970s.

3.2 The post 1960s-to early 1990s developments: central banking, the nationalization of banks and other financial intermediaries.

3.3 Reform of the Tanzanian monetary and financial system.

##### **Module 4: Supply of Money**

4.1 Components of money supply, near money and money substitutes.

4.3 Money supply process and high-power money

4.4 Credit creation and the money supply process

##### **Module 5: Demand for Money**

5.1. The Quantity Theory of Money the Cambridge Equation.

5.2. Keynesian monetary theory

5.3. Neo-Classical monetary theory

5.4 Post-Keynesian monetary theory

5.5 Relevance of demand for money theories to developing countries (LDCs).

##### **Module 6: Inflation**

6.1 Money and prices

6.2. Monetary disequilibrium

- 6.3 Causes, types and effects of inflation
- 6.4 Anti-inflation policies and practices

**Module 7: Monetary Policy**

- 7.1 Goals and targets of monetary policy
- 7.2 Instruments/tools of monetary policy
- 7.3 Monetary policy in a closed economy
- 7.5 Monetary policy in an open economy
- 7.6 Lags in the effectiveness of policy
- 7.7 Limitations of monetary policy

**Basic Readings**

Bain and Howell, (2003) *Monetary Economics: Policy and Its theoretical basis*. Palgrave

Bronfenbrenner, m. and Polzaran, F. "Survey of Inflation theory", *American Economic Review*, 53, September 1963.

Capie, F. and G. Wood (eds.) (1996), *Monetary Economics in the 1990s: The Henry Thornton Lectures*, Numbers 9-17.

Fry, M. J. (1988), *Money Interest and Banking in Economic Development* Baltimore: Johns Hopkins

Furness, E.L. (1978), *Money and Credit in Developing Africa*. London: Heinemann.

**Other readings**

Hall, R. E. (1982), *Inflation: Causes and Effects* Chicago: University of Chicago Press,

MacKinnon, R. I. (1973), *Money and Capital in Economic Development*. Washington, D.C.: The Brookings Institution.

Mishkin, F.S. (1995), *The Economics of Money, Banking, and Financial Markets*. 4<sup>th</sup> edition. HarperCollins College publishers.

## **EC323: INTERNATIONAL TRADE**

### **(I) Course Description**

The course introduces the candidate to International Economics. Four topics, broadly defined, are included in the first semester: an introduction to the scope and subject matter of international trade theory, theories of international trade from the classical economists to the neo-classicals, international trade dynamic factors, and topics in applied international trade

### **(II) Course Objectives**

The objective of the course is to introduce students to trade theory and ability to analysis contemporary issues in international trade.

### **(III) Course content**

#### **Module 1: The Pure Theory of International Trade**

- 1.1 The Law of Comparative Advantage
- 1.2 The Standard Theory of International Trade
- 1.3 Offer Curves and the Terms of Trade.

#### **Module 2: Factor Endowments and Heckscher - Ohlin Theory**

- 2.1 Theory
- 2.2 Extensions
- 2.3 Applications

#### **Module 3: Empirical Tests and Complementary Trade Theories**

#### **Module 4: Growth of Factors of Production and International Trade**

#### **Module 5: The Political economy of International Trade**

#### **Module 6: Commercial Policies in International Trade**

- 6.1. Trade Restrictions: Tariffs
- 6.2. Theory and Practice of Regional Integration.
- 6.3. Trade and Development

#### **Module 7: Regional Integration**

- 7.1. Trade creation and diversion
- 7.2 East African Community
- 7.3 Southern Africa Development Cooperation (SADC)
- 7.4 African Union (AU)
- 7.5 European Economic Community (EEC)

#### **Module 8: Balance of Payments and Money in an International Setting**

- 8.1 Balance of payments problems and money
- 8.2. Foreign exchange market and international liquidity

- 8.3. Gold and reserves
- 8.4. The international monetary system
- 8.5. Convertibility and pegging (The Exchange Rate System)
- 8.6. Reforms of the international monetary system
- 8.7. Financial markets and Stock Exchange
- 8.8 The monetary approach to the balance of payments

**Module 9: Adjustments in the Balance of Payments and Domestic Stability**

- 9.1.The Price Adjustment Mechanism. Adjustment with Flexible Exchange Rates
- 9.2.The Income Adjustment Mechanism and Synthesis
- 9.3 Adjustment Policies
- 9.4.Flexible Versus fixed Exchange Rates. The Case of Managed Float

**Module 10: Contemporary Issues in International Economics**

- 10.1.Globalization
- 10.2.World Trade organization (WTO)
- 10.3.General Agreements on Tariffs and Trade (GATT)

**Basic Readings**

- Salvatore, D. (1993). *International Economics* 3rd eds. Macmillan: New York.
- Caves, R. & Jones R. (1985), *World Trade and Payments: An Introduction*. Little, Brown & Company.
- Mshomba, R.E. (2000), *Africa in the Global Economy*. Boulder: lynne Rienner Publishers, Inc.

**Other Readings**

- Oyejide, A. Elbadawi I and Collier, P. (eds) (1997), *Regional Integration and Trade Liberalization in Sub-Saharan Africa*, Vol. 1; London, Macmillan
- Patel, C.K. and Gayi S. (eds), *Trade Diversification in the Least Developed Countries* Cheltenham and Lyme: Edward Elgar
- Porter, M. (1998), *The Competitive Advantage of Nations* New York: Free Press

**YEAR THREE (ELECTIVE COURSES)**  
**OEC324 PUBLIC FINANCE**

**(I) Course Description**

This is the first applied course in public finance and the following Modules are covered; the scope and subject matter of public finance; the notion of market failure and the rationale for Government or public sector intervention, and the broad topic on Externalities and the theory of Public Goods. Other topics include Government Failure, and Overview of Welfare Economics. The Government Expenditure System is covered also, with possible applications at the end.

**(II) Course Outline**

**Module 1. Subject Matter and Overview on Fiscal Functions**

- 1.1 Subject matter of public finance
- 1.2 Fiscal functions: An overview.
- 1.3 Public finance and Attitude Toward Government
- 1.4 Tools of public finance: Positive and Normative Analysis

**Module 2: An Overview of Welfare Economics**

- 2.1 Pareto Optimality and Competitive Markets
- 2.2 Theorem of Welfare Economics
- 2.3 International Considerations
- 2.4 Theory of the Second Best
- 2.5 Social Welfare Functions
  - Utilitarian
  - Rawl's choice.

**Module 3: Market Failure and the Rationale for Government Intervention**

- 3.1 Sources
  - Externalities
  - Public Goods

**Module 4: Externalities**

- 4.1 Production, consumption, technological, positive, negative.
- 4.2 Possible Remedies (Taxes, subsidies, Auction, Pollution Permits, Coase Theorem, Regulation)

**Module 5: Theory of Public Goods**

- 5.1 Pure theory of public goods
  - Characteristics
  - Efficient Provision of Public Goods
  - Free rider Problem.

## **Module 6: Public Expenditure System**

6.1 Direct Democracy

6.2 Indirect Democracy

- Voting and Resource Allocation
- Anonymity Rule and Lindahl Procedure
- Majority voting rule (Lagrolling)
- Other voting rules.

## **Module 7: Government Failure**

7.1 Disfunction between Public Costs and Revenue

7.2 Taxation Patterns and Levels

7.3 Imperfect control over government agencies

7.4 Rent seeking and corruption

7.5 Controls and Regulations (Prices, wages, interest rates, etc.)

## **Module 8: Principles of Expenditure analysis**

8.1 Expenditure on non-marketed goods

8.2 Allocative, distributive effects

8.3 Production efficiency

8.4 Role of Taxes

8.5 Macroeconomic effects

## **Module 9: Government Expenditure System**

9.1 Analysis of Government Expenditure Pattern, Sectoral, Regional.

9.2 Government Expenditure Multiplier.

9.3 Optimality and Government Spending

9.4 Incidence of Government Expenditure

## **Module 10: The Government Budget**

10.1 Components of the government budget

10.2 The Budget as an Instrument of the government economic and social policy (allocation, distribution, stabilization etc)

10.3 Incidence analysis (combining Revenue and expenditure to get net incidence).

## **Module 11: A Framework for Tax Analysis**

11.1 Taxation: An Introduction

11.2 Background

11.3 Attributes of a good tax system

11.4 Tax Incidence:

- Model of price determination

11.5. Taxation and Economic Efficiency

- Consumption
- Labour Supply

11.6. Efficiency and Equitable Taxation:

- Optimal commodity Taxation
- Optimal user fees
- Optimal income taxation
- Other criteria for tax design
- Tax Evasion

11.7. Principles of tax distribution

- Standards for selection taxes (Equity, Efficiency, Adequacy) Classification of rates (proportional & Regressive taxes)

**Module 12: Applications to Tanzania's Tax System and Elsewhere**

12.1.Introduction: Tax and non-tax revenues

12.2.Types of Taxes Levied in Tanzania and elsewhere (income, consumption, International trade, corporation, wealth, others).

12.3.Objectives of each type, Relative importance, Rate structure, and base.

12.4.Effect of taxes on equity, saving and Investment, Resource allocation, Evasion etc.

12.5.Tax Reforms in Tanzania.

**Module 13. Cost-Benefit analysis**

13.1.Present Value: Inflation

13.2.Private cost- Benefit analysis internal rate of return cost-Benefit ratio

13.2.Social cost-Benefits Analysis

13.4.Discount rate

13.5.Valuing public benefits and costs.

13.6.Some pitfalls in cost-Benefit Analysis

**Major Readings**

David N. Hyman,(2005) Public Finance: A Contemporary Application of Theory to Policy, 8<sup>th</sup> Edition The Dryden Press, Harcourt Brace.

Browning, E.K. and J.M. Browning (1998), *Public Finance and the Price System*. New York: McMillan..

Rosen H. S. (1998), *Public Finance*. 3<sup>rd</sup> Edition, Irwin.

Stiglitz J. E. (2000), *Economics of the Public Sector*. 3<sup>rd</sup> Edition W.W. Norton and Co.

Musgrave R. A. and P.B. Musgrave (1989), *Public Finance in Theory and Practice*,. 5<sup>th</sup> edition. Macgraw-Hill.

**Other Readings**

Charp, A. and B. Sliger (1970), *Public Finance; Introduction to the Study of Public Economy*. Austin, Business Publication.

Newbery D. and N. Stern (1987), *The Theory of Taxation for Developing Countries* Oxford University Press.

Auerbach A. J. and M. Feldstein (Eds) (1985), *Handbook on Public Economics* Vol I and II North-Holland.

Atkinson A. B. and J. E Stiglitz (1980), *Lectures on Public Economics* McGraw-Hill.

## **EC325 LABOUR ECONOMICS AND HUMAN RESOURCES**

### **Course description**

This course covers contemporary, empirical, institutional and policy issues pertaining to labour markets and human resources in developing countries in general and in sub-Saharan Africa in particular.

### **The course objectives are to:**

- Provide students with theoretical knowledge about the operation and importance of labour markets and human resources in an economy.
- Equip students with the analytical skills for dealing with policies and other matters regarding labour markets and human resources in developing countries.
- Boost students' interest in issues of labour markets and human resources.
- Enhance students' capacity to carry out action oriented research and engagement with policy making process with regard to issues of labour markets and human resources.

### **Course content:**

#### **Module 1: Introduction to Labour Economics and Human Resources**

- 1.1. Definition and scope of labour economics
- 1.2. Definition and scope of human resources
- 1.3. The nature of labour markets

#### **Module 2: Labour Supply**

- 2.1. Definition of labour supply
- 2.2. Participation and Hours Decisions
- 2.3. Short Run Labour Supply Analysis
- 2.4. Simple Static Model
- 2.5. Extensions to the Theory of Labour Supply

#### **Module 3: Labour Demand**

- 3.1. Demand in Competitive Labour Markets
- 3.2. Demand in Non competitive Labour Markets

## **Module 4: Equilibrium Wage and Employment Determination**

- 4.1.Labour Market Clearing: Competition and Institutions
- 4.2.Wage Differences in Competitive Labour Markets: The Equalization of the Net Advantages of Different Jobs
- 4.3.Wage Differences in Internal or Career Labour Markets and Dual Labour Markets
- 4.4. Discrimination in Labour Markets

## **Module 5: Human Resources Development**

- 5.1.Investment in Human Resources -- introduction; theoretical framework; empirical results; determinants of schooling and training.
- 5.2.Education, Training and Earnings Differentials: The Theory of Human Capital

## **Module 6: An Overview of Labour economics and Human Resources in Sub Saharan Africa**

- 6.1.Labour markets during structural adjustment era in Sub-Saharan Africa.
- 6.2.Analysis of trends in employment, unemployment, underemployment, wages, income distribution, migration, poverty, entrepreneurship and education and training.

## **Module7: Unemployment and Under-employment**

- 7.1.Definition of unemployment and under-employment – including equilibrium and disequilibrium unemployment
- 7.2.Measurement of unemployment and underemployment
- 7.3.Causes of unemployment and under-employment

## **Module 8: Income Distribution and Poverty**

- 8.1Type and measures of income distribution
- 8.2.Definition and measurement of poverty
- 8.3.Theories of income distribution
- 8.4.Causal perspectives of poverty

## **Module 9: Entrepreneurship and Economic Development**

- 9.1. Defining entrepreneurship
- 9.2. Myths of entrepreneurship
- 9.3. Schools of thought approach to entrepreneurship
- 9.4. Process approach to entrepreneurship
- 9.5. Multi-dimensional approach to entrepreneurship
- 9.6. The role of government and civil society in developing entrepreneurship

## **Module 10. The Household Economy Approach to Labour Markets and Human Resources**

- 10.1. An overview of the household economy approach
- 10.2. The use of the household economy approach for (participatory) poverty assessment, labour supply and income distribution analysis
- 10.3. Framework and definitions
- 10.4. Finding information and checking for accuracy
- 10.5. Putting the information to work
- 10.6. Presenting the results

### **RECOMMENDED READINGS**

Addison, J.T. and W.S. Siebert (1979). *The Market for Labor: An Analytical Treatment*. Santa Monica, California: Goodyear Publishing Company, Inc

Bigsten, A. (1983). *Income Distribution and Development: Theory, Evidence and Policy*. London: Heinemann.

Hardwick, P., B. Khan and J. Langmead (1996). *An Introduction to Modern Economics, Fourth Edition*. Edinburgh and Singapore. Addison Wesley Longman Limited.

Bosworth, D., Dawkins and T. Stromback (1996). *The Economics of the Labour Market*. England and Singape: Addison Wesley Longman Ltd.

Elliot, R.F. (1991). *Labour Economics: A Comparative Text*. England: McGraw-Hill Book Company Europe.

ILO (1990). *Employment, Unemployment, and Underemployment: An ILO Manual on Concepts and Methods*. Geneva: ILO.

Kanbur, R. and D. Mazumdar (1988). "Labour Markets in an Era of Adjustment". Draft Proposal. World Bank, Economic Development Institute, Washington D.C.

Kilby, P. (1971) (ed.), *Entrepreneurship and Economic Development*. New York: Free Press.

Kuratko, D.F. and R.M. Hodgetts (1992). *Entrepreneurship: A Contemporary Approach, Second Edition*. New York and London: The Dryden Press.

MCCConnell, C.R. and S.L. Brue (1995). *Contemporary Labour Economics Fourth Edition*. Singapore: McGraw-Hill Inc.

Meir, G.M. (1976). *Leading Issues in Economic Development, Third Edition*. New York: Oxford University Press.

Rosenweig, M. (1988). "Labour Markets in Low-Income Countries". In Chenery H. and T.N. Srinivasan. *Handbook of Development Economics, Volume 1*. Amsterdam: Northa Holland.

Seaman, J., P. Charke, T. Boudrean and J. Holt (2000). *The Household Economy Approach: A Resource Manual for Practitioners*. London: Save the Children.

Sloman, J. (1991). *Economics*. New York and London: Harvester Wheatsheaf Prentice Hall.

Standing, G. and V. Tokman (forthcoming). *Towards Social Adjustment? Labour Market Issues in Structural Adjustment.*, Geneva: ILO.

Todaro, M. (1981). *Economic Development in the Third World, Second Edition*. New York: Longman Inc.

## **OEC326: INDUSTRIAL AND PRODUCTION ECONOMICS**

### **(I)Course Description**

This is the first applied course in Industrial and Production Economics. Four broad topics are included in this course. The first topic covers structure of industry in general, and with reference to Tanzania. The second broad topic considers patterns of industrial growth and the implications for industrial policy and planning. In the third topic, industrial policy is discussed, covering aspects of pricing, trade policy, monetary and fiscal policies for industrial development. Case Studies come at the end.

### **(II)Course Objective**

The objective of the course is to introduce students to the analysis of industrial production, policy and planning, including the techniques for choice of location of industry. In addition the course intends to get the students understand policy issues and implications of the choice of technology and production and cost relations. Case studies are cited to bring the empirical relevance of the subject especially for developing countries.

### **(III)Course content**

#### **Module 1: Structure of Industry**

- 1.1 Definition of industrial structure
- 1.2 Indicators of industrial structure
- 1.3 Industrial structure of Tanzania

#### **Module 2: Patterns of Industrial Growth**

- 2.1 Methodologies used in characterizing Patterns
- 2.2 Major findings
- 2.3 Implications

#### **Module 3: Industrial policies**

- 3.1 Pricing of industrial goods
- 3.2 Trade policy for industrialization
- 3.3 Monetary and Fiscal Policies for industrial development

#### **Module 4: Case Studies**

- 4.1 Empirical evidence on the Structure, Patterns and Policies
- 4.2 Formulation and Elements of policy
- 4.3 The institutional framework

#### **Module 5: Choice of Technique and Technology Policy**

- 5.1. Theory
- 5.2 Empirical evidence
- 5.3 Formulation and Elements of policy
- 5.4 The institutional framework

#### **Module 6: Industrial Production and Cost Analysis**

- 6.1 Production functions
- 6.2 Cost functions
- 6.3 Efficiency: static and dynamic
- 6.4 Economies of scale
- 6.5. Optimization

- Module 7: Modelling Inventory and Stock Flows**  
 7.1. Inventory Analysis (Trading Only)  
 7.2. Inventory Analysis (Trading and Producing)  
 7.3. Stock Flow Analysis
- Module 8: Theory and Practice of Capacity utilization in manufacturing**  
 8.1. Factors affecting capacity utilization in manufacturing  
 8.2. Practice of capacity utilization in manufacturing
- Module 9: Case Studies**  
 9.1. Evidence from Tanzania (effect of policies)  
 9.2. Other international experiences

**Basic Readings**

Audretsch, D.B. and S. Klepper (eds) (2000), *Innovation, Evolution of Industry and Economic Growth*, Edward Elgar Publishing Limited, U.K.

Ray, D. (1999), *Development Economics*, Princeton University Press

Skarstein, S. and Wangwe, S.M. (1986), *Industrial Development in Tanzania: Some Critical Issues* Scandinavian Institute for African Studies, Uppsala and Tanzania Publishing House, Dar es Salaam.

Cook, P. and C. Kirkpatrick (eds) (2000), *Privatization in Developing Countries*, Edward Elgar Publishing Limited, U.K.

Rweyemamu, J.F. (1973), *Underdevelopment and Industrialization in Tanzania: A Study of Perverse Capitalist Industrial Development*. Oxford University Press

Szirmai, A. et al (eds), *Industrialization in Sub-Saharan Africa* McMillan

**OEC327 AGRICULTURAL ECONOMICS**

**(I) Course Description**

This applied course introduces the candidate to topics in Agricultural Production and Supply Responsiveness, Farm Management and Tropical Agriculture. The course also covers major areas including Agricultural Marketing, Locational Analysis, Transportation in Agriculture. Regulatory and Institutional Framework in Agriculture and International Trades Aspects of critical relevance in agriculture.

**(II) Course Objectives**

The objective of the course is to introduce students to more incisive analysis of agricultural economics with special focus on production, farm management and problems of agriculture in the tropics. The overall objective of the course is to explore the role of agriculture in processes of economic development, highlighting the implications for development strategies and policies at both the national and international levels.

**(III) Course content**

**Module 1: Agricultural Production and Theory of Supply Responsiveness in Agriculture**

- 1.1 Basic Production Theory in Agriculture
- 1.2 Cost Theory in Agricultural Systems
- 1.3 Supply Responsiveness

**Module 2: Tropical Agriculture (Crop and Animal Husbandry)**

- 2.1 Agricultural Organization and technology (small-holder, largescale: technologies for production and processing, technological progress).
- 2.2 Special influences (policy, climate, competition, transport, etc.)

**Module 3: Farm Management**

- 3.1 Farm Management in a changing environment
- 3.2 Economics of Farm Management
- 3.3 Decision Making Functions in Farm Management
- 3.4 Financial management and information for farm businesses
- 3.5 Analysis of farming results
- 3.6 Farm Business Planning and Investment Decisions
- 3.7 Risk, Uncertainty and Insurance.

**Module 4: Agricultural Marketing**

- 4.1 General Principles
- 4.2 Cost and Returns in Agricultural Marketing
- 4.3.Pricing in Agriculture: Parallel and Non Parallel Markets
- 4.4.Subsistence and Market Orientation

**Module 5: Locational Analysis and Transportation: Special Conditions in Agriculture.**

**Module 6: Regulatory and Institutional Frameworks in Agriculture**

**Module 7: International Trade Aspects**

- 7.1.Control/regulatory Mechanisms in International Trade in Agricultural Commodities.
- 7.2.Cartels and Commodity Blocks: Special Case of International Commodity Agreements.
- 7.3.GATT Rounds, UNCTAD, ACP-EU/LOME I-V, WTO.

**Module 8: Case Studies**

- 8.1.Tanzania: Evolution and Policies in Agriculture
- 8.2.USA, EU, JAPAN, Regional groupings in Africa and Asia

**Basic Readings**

- Eicher, Carl and J. Staats (eds.) (1998), *International Agricultural Development.*, 3<sup>rd</sup> ed., Johns Hopkins.
- Ray, D. (1999), *Development economics*, Princeton University Press, (DR)
- Sadoulet E. and de Janvry A. (1995), *Quantitative Development Analysis*, Johns Hopkins University Press.

- Suzuki Y. and Bernard (1987), *Effects of Pan-territorial pricing policy for Maize in Tanzania*.
- Ellis, F. and Biggs, S. (2001). Evolving Themes in Rural Development 1950s-2000s. *Development Policy Review*, 19 (4), 437-448.
- Lanjouw, J.O. and Lanjouw, P. (2001). The Rural Non-farm Sector: Issues and Evidence from Developing Countries. *Agricultural Economics*, 26, 1-23.

## **OEC 328: HEALTH ECONOMICS**

### **(I)Course description**

The major objective of this course is to introduce to students to health economics as a branch of economics in order to develop an understanding of economic principles as applied to health and health care in general and developing countries in particular. At the end of the course, students are expected to have mastered the field of health economics to such an extent as to be able to work effectively as health economists.

### **(II)Course objectives:**

On completion of this course students should, among other things, be able to:

- i) Apply economic concepts and techniques to analyze health and health policy issues;
- ii) Describe the special features of health care as a commodity.

### **(III)Course outline**

#### **Module 1. Introduction to Health Economics**

- 1.1 What is health economics?
- 1.2 Health, public goals and health economics
- 1.3 The relevance of health economics
- 1.4 Does economics apply to health and health care?
- 1.5 Is health care different from other commodities?
- 1.6 The nature of health care.

#### **Module 2. Markets and Health Care**

- 2.1 Market failures in health care and the implications for health policy.
- 2.2 Practice with demand and supply
- 2.3 Need versus demand.
- 2.4 The analog to demand: willingness to pay
- 2.5 Derived demand for health services
- 2.6 Monopoly and other market structures

**Module 3. The Production of Health**

- 3.1 Determinants of health
- 3.2 The production functions of health and health care
- 3.3 On the historical role of medicine and health care
- 3.4 The production of health in the modern day
- 3.5 On the role of schooling
- 3.6 Labor leisure trade off

**Module 4. Demand for Health and Health care**

- 4.1 The demand for health and health capital
- 4.2 Grossman's model: a theoretical and empirical investigation of demand for health .
- 4.3 Analysis of static equilibrium in Grossman's model.
- 4.4 Demand for health care: standard budget constraint model
- 4.5 Issues in measuring shifts in demand for health care: the role of time and insurance.
- 4.6 Empirical measurements of demand elasticities
- 4.7 The utilization of health care
- 4.8 Basic principles of expected utility and the theory of health care demand
- 4.9 Discrete choice models demand for health care

**Module 5. Health Insurance**

- 5.1 Uncertainty and insurance
- 5.2 The demand for insurance
- 5.3 The supply of insurance
- 5.4 Moral hazard and adverse selection

**Module 6. Asymmetric Information and Agency in health care**

- 6.1 Asymmetric information
- 6.2 The agency relationship
- 6.3 Consumer information, prices and quality

**Module 7. Imperfect Information and Supplier-Induced Health Care Demand**

- 7.1 Supplier-induced demand (SID)
- 7.2 Models of SID
- 7.3 Evaluation of SID

**Module 8. Cost of Health and Health Care**

- 8.1 The cost function and economies of scale and scope
- 8.2 Empirical cost function studies
- 8.3 Measuring and improving efficiency in health care
- 8.4 Hospital cost analysis
- 8.5 Estimation of the unit costs of providing health care services
- 8.6 Measurement of productivity of hospitals
- 8.7 Data envelopment analysis

**Module 9. Social Science, Health and Medicine: An Overview**

- 9.1 The Sociology of Health and medicine
- 9.2 The Politics of Health Care
- 9.3 The Geography of Health

**Module 10. Health and Development: broad issues**

- 10.1.Indicators of health
- 10.2.Disease profiles of rich and poor countries
- 10.3.Health and growth
- 10.4.Health expenditure and health
- 10.5.Economic crisis: adjustment and impact on health
- 10.6.Linkage between poverty and health
- 10.7.Country Case-Studies

**Module 11. Systems of Health Care delivery**

- 11.1 Economic Objectives of Health Care Systems
- 11.2 Organization and Structure
- 11.3 Country Case- Studies

**Module 12. Health Care Financing**

- 12.1 Public Sources of Health Finance
- 12.2 Private Sources of Health Finance
- 12.3 Planning and Managing Health Finance
- 12.4 Country Case-Studies

**Module 13. Health Sector Reforms**

- 13.1 Definition of health sector reform (HSR)
- 13.2 HSR=s goals and strategies
- 13.3 Context and content of HSR
- 13.4 Framework for linking HSR to health systems/ service performance, and to health status improvement
- 13.5 Stakeholders and HSR
- 13.6 Developing and implementing a country=s HSR program
- 13.7 Sector wide approaches (SWAps) and HSR.
- 13.8 Country Case-Studies

**Module 14. Economic Evaluation and Health Care Intervention**

- 14.1 Cost-Effectiveness Analysis
- 14.2 Cost-Benefit Analysis
- 14.3 Sensitivity Analysis
- 14.4 Nonquantifiables
- 14.5 Case-Studies

**Module 15. Economics of Disease**

- 15.1 The Economic Impact of AIDS
- 15.2 The Socio-economic Burden of Malaria Illness
- 15.3 Country Case-Studies

**Module 16. Health Policy and Planning**

- 16.1. Health Policy
- 16.2. Health Sector Strategic Plan
- 16.3 Health Accounts
- 16.4. Human Resource Planning
- 16.5 Country Case Studies

**Basic Readings:**

Folland, S., Goodman, A. and Stano, M.(2000). The economics of Health and Health Care. Third Edition. Prentice Hall. ISBN: 0-13-0122157

Donaldson, C. and K Gerard, (1993), *The Economics of Health Care Financing*, Macmillan.

Drummond, M.F. G. L. Stoddard and G. W. Torrance (1987) *Methods for the Economic Evaluation of Health care Programmes*. Oxford Medical Publications. Oxford : OUP.

Feldstein, Paul J (1983), *Health Care Economics*, John Wiley and Sons, New York (Second Edition or the latest edition).

Rice, T.(1998). The Economics of Health Reconsidered. Chicago: Health Administration Press

**Other Readings**

- Clewar, A and Perkens, D.(1998). *Economics of Health Care Management*. London: Prentice Hall.
- Lilienfeld, A. M. and D. E. Lilienfeld, (1980), *Foundations of Epidemiology*. 2<sup>nd</sup> Edition. Oxford University Press.
- McGuire, A., J. Henderson and G. Mooney (1988), *The Economics*

## **OEC329: NATURAL RESOURCES AND ENVIRONMENTAL ECONOMICS**

### **(I)Course Description**

Environmental economics is an applied field in economics. It is based on microeconomic theory and also draws from other branches of economics such as public finance and industrial organization. The course introduces economic theory and analysis of the use and conservation of the available natural resources and the environment in general. It critically examines environment policies and their implementation in Tanzania with a view to provide the necessary tools of analysis and formulation of policies and strategies for sustainable development. Four main areas will be considered covering issues in resource and environmental economics, the economics of the environment, the theory of environmental policy, and the valuation of Environmental assets.

### **(II)Course Objectives**

The general objective of the course is to examine the characteristics (special features) and role of natural resources and the environment in the process of economic development with special attention to Tanzania.

### **(III) Course content**

#### **Module 1: Issues of Natural Resources Economics**

- 1.1 Economic Growth, resources scarcity and environmental degradation
- 1.2 Allocation of delectable and renewable resources
- 1.3 Efficient Utilization of natural resources

#### **Module 2: Economics of the Environment: an Overview**

- 2.1 Poverty-Environment Nexus
- 2.2 Current Global Environmental Issues
- 2.3 Current Environmental Issues in Tanzania

#### **Module 3: The Theory of Environmental Policy**

- 3.1 The Philosophical Base of Resources and Environmental Policy

### 3.2 Property Rights, Externalities and Environmental Problems

#### **Module 4: Management of Environmental Problems**

- 4.1 Issues on the management of the commons
- 4.2 Normative criteria for decision making
- 4.3 Economic efficiency
- 4.4 Dynamic efficiency
- 4.5 Market failure: public bads and externalities
- 4.6 Property rights
- 4.7 Pigouvian tax
- 4.8 Emission feed and marketable permits
- 4.9 The national environmental policy
- 4.10 The economics approach to environmental problems
- 4.11 Environmental quality and costs of environmental protection
- 4.12 International and interregional issues
- 4.13 Sustainability and green accounting
- 4.14 Economy wide effects of environmental regulations

#### **Module 5: Valuation of environmental assets**

- 5.1 Use Values
- 5.2 Non-use values

#### **Module 6: Economic Theory and Measurement of Environmental Benefits**

- 6.1 Surrogate markets
- 6.2 Contingent valuation
- 6.3 Cost and benefit approach
- 6.4 Opportunity costs
- 6.5 Consumer surplus

#### **Module 7: Economic Instrument for Environmental Conservation (6 hours)**

- 7.1 Tradable permits
- 7.2 Pigouvian Tax
- 7.3 Pigouvian Subsidies
- 7.4 Property rights

#### **Module 8: Natural Resources Accounting (NRA)**

- 8.1 NRA Definition and relation to SNA
- 8.2 Theoretical Foundations for NRA
- 8.3 Adjusting the National Accounts
- 8.4 NRA Frame and Approaches
- 8.5 Policy Uses for NR Accounts
- 8.6 State of NRA and experiences in Africa and World

#### **Module 9: The Sustainable Development Concept**

- 9.1 Definition of Sustainable Development
- 9.2 Necessary conditions for attaining sustainable development
- 9.3 Measuring Sustainable Development
- 9.4 Possibilities and options for developed and developing countries.
- 9.5 Constraints and challenges for attaining sustainable development

## **Basic Readings**

### **Basic Readings**

- C. Kolstad, *Environmental Economics*, Oxford University Press, 2000.
- Tietenberg, T. (1992), *Environmental and Natural Resources Economics*. Scott, Foreman and Co. Illinois:
- Tietenberg, T. (1994), *Economic Theory and Environmental Policy* Edward Elger.
- Johansson, P. (1987), *The Economic Theory and Measurement of Environmental Benefits*: Melbourne Cambridge University Press.
- Randal, a (1987), *Resources Economics: An Economics Approach to Natural Resources and Environmental Policy*. New York: John Wiley and Son.
- Dasgupta, P.S. and G.M. Heal (1979), *Economic Theory of Exhaustible Resources*. James Nisbet/Oxford Cambridge University Press.
- Perman, R. Ma T and McGilvray T (1996); *Natural Resources and Environmental Economics*, Longman London and New York.

### **Other Readings**

- Bagachwa, Sosovele, Shechambo, Kulindwa and Naho, eds. (1995), *Structural Adjustment and Sustainable Development in Tanzania* Dar es Salaam: DUP
- Georgiou, Stavros, D. Whittington, D. Pearce and D. Moran (1997), *Economic Values and the Environment in the Developing World*. Cheltenham: Edward Elgar Publishing Limited. pp167
- Sterner, T. (2003), *Policy Instruments for Environmental and Natural Resource Management*. Washington: Resources for the Future. pp 504.
- Heal, G. (2000), *Nature and the Marketplace: Capturing the Value of Ecosystem Services*. Washington: Island Press. 203.
- Reed, David (ed) (1996), *Structural Adjustment, the Environment, and Sustainable Development*. Earth scan Publications Ltd. London.



