**Course syllabus for Master Program In Agricultural Economics (Regular)**

**Year I : Semester II**

**Course Code: AgEc-512**

**Course Title: International Agricultural Trade**

**Objective:** To acquaint students with the basic nature and scope of international trade; to familiarize students with different theories and models of international trade; and to introduce them with economic principles underlying international trade policies, practices, and institutions that influence trade and foreign exchange markets.

**Contents**

Trade theories which includes the classical model (Smith and Ricardo, Thomas Mun – Merchantalism), the modern, neoclassical, theory of trade (the H-O-S model, the Stolper-Samuelson Theorem, The Leontief paradox, Linder's Hypothesis, the Rybzenski theorem etc), Technological - Gap Models (Posner's imitation and demand gap model and product cycle), The New Trade Theories and The African context (Imperfect competition and scale economies), Non-Orthodox Models and Trade in Primary Commodities (Unequal exchange, the Prebisch-Singer Hypothesis), Tariffs and subsidies, Economic Integration and Theories of Customs Unions, Trade policies and Developing countries (Import Substitution and Export Promotion, Trade and Development, the World Trade Organization, ITO and GATT, etc).

**Course contents**

1. **The Concepts of International Trade**
   1. Definition
   2. Features of Inter-Regional And International Trade
   3. Commonly Used Terminologies In International Trade
   4. The reason for international trade and its significance
2. **Theories of International Trade**
   1. Classical Theories Of International Trade
      1. The Mercantilists Trade Theory
      2. Theories Of Absolute And Comparative Advantage
      3. Comparative Advantage And Opportunity Costs
      4. Offer Curve and Terms of Trade
   2. Modern Trade Theories Of International Trade
      1. Heckscher-Ohlin Theory of Trade
      2. Extensions Of The Heckscher-Ohlin theory
3. **International Trade Policies** 
   1. The Concept Of Free Trade
   2. Trade Protection
      1. Concept Of Meaning Of Protection
      2. Method Of Protection
         1. Import Tariff
         2. Export Subsidy
         3. Import Quota
4. **Economic Integration and Regional Trade Organizations**
   1. Types of economic integration
   2. Effects of regional trade arrangements
   3. The Major Trade Agreements
   4. .Regional Trade Organizations (GATT, WTO…)
5. **Trade and Economic Growth and Development** 
   1. .International trade and economic growth
   2. International trade and economic development
   3. Trade Development Strategies
      1. Import Substitution
      2. Export Promotion

**References**

1. Appleyard, D.R., Alfred J. Field, Steven L. Cobb. 2008. *International Economics*, 6th edition. McGraw-Hill Boston.
2. Hajela, T.N, 1998. Money, Banking, and International Trade. Seventh Ed. Konark, Delhi.
3. Jhingan, M.L.,2007. International Economics. 5th Edition. Vrinda, India
4. Krugnan, Paul and Maurue Obstfeld,(1997) International Economics: Theory and Policy, Addison-Wesley press
5. Robert J. Carbaugh (2004), International Economics, 9th edition.
6. Salvatore Dominidik, International Economics, 7th ed John Willy & Sons, New York, 2001.
7. Tweeten, L. 1989. *Agricultural policy analysis*, West views Press, London.

**Assessment**

Group assignment with presentation (25%), Written Exam (75%)

**Course Code: AgEc-532 Cr.Hr-3**

**Course Title: Agricultural Project Planning and Analysis**

**Objective:** To enable students with knowledge and skills required in designing viable agricultural projects.

**Contents**

The main topics of this courses are:-Definition of a project, differences between plans, programs and projects, the project cycle, techniques of project identification, elements of project feasibility study: technical, market, financial and economic, social, environmental and cross-cutting analysis, measures of project worth, sensitivity and risk analysis.

**Course contents**

1. **The project Concept**
   1. Definition, advantages and disadvantages of projects
   2. Distinction between programs and projects
   3. Aspects of project preparation and analysis
   4. The project Cycle

**2. Criteria and approaches project development**

* 1. Log frame approach
  2. SWOT analysis Assessmen**t**

1. **Project costs and benefit**
   1. Intangible costs and benefits
   2. Secondary costs and benefits
2. **Financial aspects of project analysis**
   1. Pricing of project costs and benefits
   2. Farm investment analysis
   3. Financial analysis of processing industries
   4. Analyzing project on government receipts
3. **Economic and Social Analysis**
   1. Purpose of Economic Analysis
   2. Economic and Social Cost-Benefit Analysis
   3. Opportunity Cost and Economic Valuation
   4. Numéraire Approaches to Measuring Economic Costs and Benefits of a Project
      1. UNIDO Approach
      2. Little-Mirlees (L-M) Approach

* Determining Economic Value
* Direct transfer payments
* Valuing non-traded goods
* Valuing Output Using Market Prices
* Valuing inputs using market prices
* Valuing traded goods
* Valuing potentially traded goods
* Valuing Externalities

1. **Measures of Project Worth**
   1. Undiscounted Measures of Project Worth:- Ranking by Inspection, Payback Period & Rate of Return on Investment
   2. Discounted Measures of Project Worth:- Net Present Value (NPV), Internal Rate of Return (IRR) , Benefit-Cost Ratio (BCR), Net Benefit-Investment Ratio (N/K) and Capital Rationing
2. **Monitoring and Evaluation of Projects**
   1. Distinction and complementarities between M & E
   2. Purpose of Monitoring and evaluation
   3. Types of monitoring and evaluation

Reference

1. Bellas, A. and Zerbe, R. O., 2000. *A primer for Cost benefit Analysis.* Harper Collins*, NY.*
2. Belli, P., 1996. *Hand Book on Economic Analysis of Investment Projects*. World Bank, Operations Policy Department.
3. Chandra, P., 1980. *Projects****:*** *Preparation, Appraisal and Implementation****.*** Tata, McGraw-Hill Publishing Company Limited, New Dahi.
4. Gittinger, J.P., 1982. *Economic Analysis of Agricultural Projects*. The Johns Hopkins University Press, 2nd edition, Baltimore and London.
5. Square, L. and Van der Tak, H.G., 1992. *Economic Analysis of Projects.* The Johns Hopkins University Press, 7th ed, Baltimore and London.

**Assessment**

Project work and presentation (50%), Written Exam (50%)

**Course Code: AgEc-542 Cr.Hr-3**

**Course Title: Agricultural Policy and Analysis (E)**

**Objective:** After qualifying this course, students should have good understanding of agricultural and trade policies and its application.

**Contents**

Dimensions of food security; trends in global food production; Food and Agricultural policies and their objectives; Impact of Policy; macroeconomic policies and Agriculture; Frameworks for assessing policy distortions and its implications, Modeling of agriculture sector: Economic models of policy analysis for the examination of the impact of commodity, farm input, international trade and economic policies on Agriculture and the whole economy. Multi-market models for the analysis of equity, efficiency, self-sufficiency and balance of payment effects of Agriculture Policy. Trends towards trade liberalization and programs of policy reforms and their impact of trade performance of the ―Agriculture Sector, household‘s welfare and food security. Analysis of Agricultural Policies and programs under trade liberalization in developing countries. Adjustment of agriculture sector of a developing country under trade liberalization. Agricultural input policy, output policy, irrigation policy, mechanization policy, credit policy and others will be covered.

**Course contents**

1. Dimensions of food security
   1. trends in global food production
2. Food and Agricultural policies and their objectives
   1. Impact of Policy
   2. macroeconomic policies and Agriculture
   3. Frameworks for assessing policy distortions and its implications
3. Modeling of agriculture sector
   1. Economic models of policy analysis for the examination of the impact of commodity and farm input
   2. International trade and economic policies on Agriculture and the whole economy.
4. **Multi-Market Models** for the analysis of equity, efficiency, self-sufficiency and balance of payment effects of Agriculture Policy.
5. Trends towards trade liberalization and programs of policy reforms and their impact of trade performance
   1. Agriculture Sector,
   2. household‘s welfare and
   3. Food security.
6. Analysis of Agricultural Policies and programs under trade liberalization in developing countries.
   1. Adjustment of agriculture sector of a developing country under trade liberalization.
   2. Agricultural input policy, output policy, irrigation policy, mechanization policy, credit policy

**Reference**

**Assessment**

Group assignment with presentation (20%), Written Exam (80%)

**Course Code: AgEc-552 Cr. Hr-3**

**Course Title: Natural Resource and Environmental Economics**

**Objective:** The course will enable the students to develop understanding on issues of environmental economics and sustainability in agriculture.

**Contents**

The concepts of demand & supply, and scarcity in the context of resource economic;. Relationship between natural resource use, technology, economic growth and environment; Environmental problems-air, land and water pollution; Resource depletion and degradation will be covered. Development, sustainability and climate change will be discussed. Problems in the estimation of environmental losses; Economics of renewable and non renewable natural resources; Public and private property dilemma, the concepts of externalities; Efficiency and equity: welfare of society; Valuation of environment as a production input. Economics of environmental protection: costs and benefits; Valuation of Non-Market Amenities from Environmental Resources; Environmental policy and objectives; Policy instruments to protect environment; problems of comparing the alternative policies; Social and environmental accounting; Environmental issues of Ethiopia with special focus on agricultural sector will be covered.

Course contents

1. **Introduction** 
   1. Definitions and Concepts of basic terms
   2. The emergence of resource and environmental economics
   3. Fundamental issues in economic approach to resources
2. **Concept of sustainability**
   1. The origin of the sustainability problem
   2. Economy environment interdependence
   3. Ethics economics and the environment
   4. Economists on sustainability
   5. Ecologists on sustainability
   6. The institutional conception
   7. Sustainable development
   8. Sustainability and policy
3. **Welfare Economics and the Environment** 
   1. Efficiency and optimality
      1. Economic efficiency
      2. An efficient allocation is not unique
      3. The social welfare function and optimality
      4. Allocation in a market economy
      5. Efficiency given ideal conditions
   2. Partial equilibrium analysis of market efficiency
   3. Market failure, public policy and the government
      1. The existence of market for environmental services
      2. Public goods
      3. Externalities
      4. Imperfect information
      5. Government failure
4. **Environnemental valuation** 
   1. The need to value the environmental services
   2. Types of economics values
   3. Valuation techniques
   4. Benefits of valuating the environment
5. **Economics of pollution control**
   1. Pollution control targets
   2. Pollution control instruments
   3. Pollution policy with imperfect information
6. **The efficient and optimal use of natural resources** 
   1. A simple optimal resource
      1. The economy and its production function

6.1.2. Is the natural resource essential?

6.1.3. What is the elasticity of substitution b/n R&K?

6.1.4. Resource substitutability and the problem of increasing resource scarcity

6.2. Extending the model to incorporate extraction costs and renewable resources

1. **The theory of resource extraction: non-renewable resources** 
   1. Non- renewable resource extraction in perfectly competitive markets
   2. non – renewable resource extraction in monopolistic market
2. **Renewable resources** 
   1. An open access fishery
   2. The dynamics of renewable resource harvesting
   3. Private property fishery
   4. Forest resources

**References**

1. Roger Perman, Yue Ma, James Mcgilvery and Michael Common **(2003). Natural Resource and Environmental Economics.** 3rd  ed., Addison-Wesley
2. **Tom Tietenberg, (2003). Environmental and Natural Resource Economics**. 6th ed., Addison Wesley
3. Tony Prato. **Natural Resource & environmental economics**
4. Steven C. Hackett .**Environmental and Natural Resources Economics: Theory, Policy, and the Sustainable Society**, 3rd ed.

**Assessment**

Individual assignment with presentation (30%), Written Exam (70%)

**Course Code: AgEc-562 Cr.Hr-2**

**Course Title: Research Methods in Agricultural Economics**

**Objective:** After completing the course, students will be able to utilize the tools and Techniques in Conducting Research.

**Contents**

The research process, Identification of research problem, Formulation and testing of hypotheses; statistical methods, Sampling Techniques and sample size determination; probabilistic and non-probabilistic, research design process, measurement of variables, questionnaire development, data collection and sources of data, types of surveys, development of research proposal, data processing and analysis, interpretation of results and report writing.

**Course contents**

1. **Introduction**
   1. Definition and Model of Scientific Research
   2. Difficulties in Carrying out Scientific Research
   3. Types of Research
   4. Research Design
2. **Problem Identification and Formulation of Hypothesis**
   1. sources of research problems
   2. criteria of research problems
   3. Hypothesis and its advantage
   4. criteria for good hypothesis
   5. Types of hypothesis
3. **Method of Data Collection**
   1. Planning of survey technique
   2. Types of survey
   3. Experimental field surveys
   4. .Non- experimental field surveys
4. **Sampling Technique**
   1. Need for sampling and sampling processes
   2. Probabilistic and non-probabilistic sampling methods
   3. Determination of sample size
   4. Sampling and non-sampling errors
5. **Measurement, Scale and Data Processing**
   1. Concepts, levels and components of measurements
   2. Types of scale
   3. Data edition, classification and tabulation
6. **Statistical Measures and Inferences**
   1. Statistical for single bivariate and multivariate analysis
   2. Statistical inferences
      1. Point and interval estimates
      2. Hypothesis testing using parametric measure
      3. Hypothesis testing using non-parametric measure
7. **Interpretation and Report Writing**
   1. Mistakes commonly committed in interpreting data
   2. Components of a research Report
      1. Abstracts, introduction, objective, limitation and significance
      2. Review of literature and methodology
      3. Findings, conclusion, recommendations and reference citation

**References**

1. Babbile, E.R. (1973). **Survey Research Methods**, Wadsworth Publications Co, Belmont.
2. Burke Johnson and Larry Christinsen. 2010. **Educational research: Qualitative, Quantitative and Mixed Approaches**, 3rd edition. (Accessed on Sep 18 2010), <http://www.southalabama.edu/coe/bset/johnson/dr_johnson/2lectures.htm>
3. Griffiths, D., W.D. Stirlings and K.L Weldon (1998). **Understanding Data: Principles and Practices of Statistics**. John Willey and Sons, New York.
4. Korthari, C.K. (1985). **Research Methodology: Methods and Techniques**. Hyderabad: Wishwa Prakshan.
5. Newman, W.L. (1997). **Social Science Research Methods: Qualitative and Quantitative Approaches**. Ally and Bacon, Boston.

**Assessment**

Individual proposal writing assignment with presentation (35%), Written Exam (65%)

**Course Code: AgEc-572 Cr.Hr-1**

**Course Title: Graduate Seminar**

**Objective:** To provide guidelines for research methodology, develop and improve skills in scientific writing.

The students will be assigned topics in different areas of agricultural economics. They will deliver a seminar in current issue to acquit with knowledge and skill which will be evaluated by a committee constituted by the department.

**Assessment**

Paper (50%), presentation (50%)