

PROPOSAL FOR THE APPROVAL OF ACADEMIC COUNCIL

**CURRICULA AND SYLLABUS
FOR
AGRICULTURAL ECONOMICS**



AKAL COLLEGE OF ECONOMICS, COMMERCE AND MANAGEMENT

ETERNAL UNIVERSITY, BARU SAHIB, HIMACHAL PRADESH

2019

MASTER OF SCIENCE IN AGRICULTURE (AGRICULTURAL ECONOMICS)

Objective:

The objective of this course is to train post graduate students in a challenging economic environment and empower them through the study and analysis of advanced quantitative methods and processes. To develop independent logical thinking and facilitate personality development. To equip the students for seeking suitable career in economics and related fields. To train in data analysis for better comprehensive and policy formulation. To develop among student's communication, study and analytical skills.

Duration:

The M.Sc. course will be a two-year (minimum & maximum three years) full-time programme. Each year consist of two semesters. Thus the M.Sc. course is of four semesters. In each semester there will be number of courses as per detail given under curricula.

Eligibility:

Bachelor degree in B. Sc (Agriculture)/(Horticulture)/(Agricultural Marketing & Cooperation)/(Forestry)

Or B. Sc (Hons.) Agriculture/Horticulture)/(Agricultural Marketing & Cooperation)/(Forestry)

Medium of Instructions & Examination:

English shall be the medium of instruction and examination

Minimum Credit Requirements as per BSMA (ICAR):

The minimum credit requirement for the degree will be as under:

Subject	Credit hours as per BSMA ICAR for Master's programme	Credit hours proposed for Master's programme
Major	20	25 (Agricultural Economics)
Minor	09	08
Supporting	05	09
Seminar	01	02
Research	20	20
Total credits	55	64
Compulsory non-credit courses	06	03

Minor subject: The subject closely related to student's major subject. Master in Business Administration (MBA) will be the minor subject.

Supporting subject: The subject not related to the major subject. It could be any subject considered relevant for student's research work. Courses in quantitative methods, operations research and computer science will comprise supporting subjects.

Non-credit courses: Library & information services, technical writing and communication skills and intellectual property management will be the non-credit courses. In these courses the student has to earn satisfactory grade.

Scheme of Examination:

Examinations shall be conducted at the middle and end of each semester as per the Academic calendar notified by the Eternal University. The system of evaluation shall be as follow:

Credits	THEORY			PRACTICAL		
	Total	Mid-session	End Term	Total	Mid-session	End Term
1+0/ 2+0/ 3+0/ 4+0	100	40 (30+10*)	60	-	-	-
0+1	-	-	-	100	50	50
1+1	50	20 (15+5*)	30	50	-	50
2+1	65	25 (20+5*)	40	35	-	35
3+1	75	30 (25+5*)	45	25	-	25

*Assignments marks

Attendance requirement:

The students are required to attend tutorials, seminars etc, arranged by the department from time to time. The minimum percentage of attendance required shall be as per the Eternal University rules.

Research Project Report cum Thesis:

The student admitted for the degree programme shall be allotted to a major guide after the last date of admission in the programme. An advisory committee shall be constituted for the student under the chairmanship of major guide and shall be got approved from the Dean Postgraduate Studies. The student will finalise the topic for her/his research project in consultation with the advisory committee in the beginning of second semester. Under the guidance of advisory committee, detailed synopsis of thesis will be prepared by the student as per laid down guidelines and procedures of the university. After the satisfaction of advisory committee, the student shall deliver a synopsis seminar in the department before the faculty and students. The suggestions made in the seminar will be incorporated and five copies of the final version of synopsis duly signed by the advisory committee, the HOD concerned and Dean of the college shall be submitted to the Dean Postgraduate Studies (PGS) for further approval of the competent authority. The research project completed and submitted in the form of thesis in partial fulfilment of the requirements for the degree will be of 100 marks; 70 marks for written research project cum thesis and 30 for viva-voce. The thesis will be got evaluated from external examiner appointed by Dean PGS. However, the viva-voce will be conducted after incorporating the suggestions made by external examiner by internal committee constituted by the Dean Postgraduate Studies.

Outcome of course programme:

By learning the field of agricultural economics, it is assumed that agricultural economists will achieve and may reliably demonstrate independently the application of theory in decision-making process, an aptitude in mathematics, statistics, the computer programs and an interest in farm management for food production and its distribution. Other specific skills and abilities would be to choose the right career. For example, farm managers and production economists would be able to work with modern technology and know safety regulations. Besides, they will get more opportunities to focus on specific areas, such as public policy, the environment and agri business. From farm manager to private economic consultant, crop manager and financial consultant there will be many career choices available in agricultural economics.

Curricula (Effective from the session 2019-20 onwards)

Semester-I

Sr. No.	Course Code	Course Title	L	T	P	Credits	Contact Hours
1.	AG ECON 501	Micro Economic Theory	3	0	0	3	3
2.	AG ECON 502	Macro-Economic Theory	3	0	0	3	3
3.	AG ECON 504	Agricultural Production Economics	1	0	1	2	3
4.	AG ECON 505	Agricultural Marketing	2	0	1	3	4
5.	STAT 501 (Supporting)	Mathematical and Statistical Techniques	2	0	1	3	4
6.	LIB 501 (NC)	Library and Information Services	0	0	1	1	2
7.	ENG 502 (NC)	Technical Writing and Communication Skills	0	0	1	1	2
8.	IPM 503 (NC)	Intellectual Property Management in Agriculture	1	0	0	1	1
-	-	Total	12	0	5	17	22

Semester-II

Sr. No.	Course Code	Course Title	L	T	P	Credits	Contact Hours
1.	AG ECON 503	Research Methodology for Social Sciences	1	0	1	2	3
2.	AG ECON 506	Natural Resource and Environmental Economics	1	0	1	2	3
3.	AG ECON 507	Econometrics	2	0	1	3	4
4.	MATH 501 (Supporting)	Operations Research	2	0	1	3	4
5.	MBA 565 (Minor)	Project Management and Entrepreneurship Development	3	0	1	4	5
6.	CSE 551 (Supporting)	Computer Applications for Agricultural Economics	2	0	1	3	4
7.	AG ECON 591	Master's Seminar-I	1	0	0	1	1
8.	AG ECON 600	Master Research (Synopsis of thesis writing)	0	0	2	2	4
-	-	Total	12	0	8	20	28

Semester-III

Sr. No.	Course Code	Course Title	L	T	P	Credits	Contact Hours
1.	AG ECON 508	Economics of Growth and Development	2	0	0	2	2
2.	AG ECON 509	International Economics	2	0	0	2	2
3.	AG ECON 510	Any One of the following options for Paper AG ECON-510: (i) Rural Marketing (ii) Commodity Futures Trading (iii) History of Economic Thought (iv) Public Finance (v) Health Economics-I	3	0	0	3	3
4.	MBA 567 (Minor)	Financial Management	3	0	1	4	5
5.	AG ECON 591	Master's Seminar-II	1	0	0	1	1
6.	AG ECON 600	Master Research (Preparation of questionnaire)	0	0	2	2	4
-	-	Total	11	0	03	14	17

Semester-IV

Sr. No.	Course Code	Course Title	L	T	P	Credits	Contact Hours
1.	AG ECON 600	Master Research (Data collection, analysis & thesis writing)	0	0	16	16	32
-	-	Total	0	0	16	16	32

Total Credits including non-credits = SEM I + SEM II + SEM III + SEM IV
 $17 + 20 + 14 + 16 = 67$

SYLLABUS FOR THE PROGRAMME :

AG ECON 501 MICRO ECONOMIC THEORY

3+0+0

Objective

This course is intended to provide an overview of microeconomic theory and its applications. The course starts with the theory of consumer behaviour consisting of consumer's utility maximization problem and demand theory. It intends to provide fundamental concepts and models in the theory of production and costs and sets out to provide a basic understanding of price and / or output determination under different types of market structures including factor markets. This course will also expose the students to the theory of general equilibrium and welfare economics.

Theory

UNIT I

Theory of Consumer Behaviour - Cardinal Utility Approach - Ordinal Utility Approach – Income effect and substitution effect – Applications of Indifference curve approach - revealed Preference Hypothesis – Consumer surplus -Derivation of Demand curve – Elasticity of demand.

UNIT II

Theory of Production – Laws of diminishing returns, – Returns to scale and economies of scale – Technical progress – Theory of Costs – Cost curves and their relationships – Law of Supply – Producers' surplus.

UNIT III

Market Equilibrium - Behavior of Firms in Competitive Markets – Perfect Competition- Effect of Taxation and Subsidies on market equilibrium - Monopoly- Monopolistic - Oligopoly- Theory of Factor Markets.

UNIT IV

General Equilibrium Theory - Welfare Economics - Pareto Optimality – Social welfare criteria - Social Welfare functions.

Suggested Readings

David M Kreps 1990. *A Course in Microeconomic Theory*. Princeton University Press.

Dewitt KK. 2002. *Modern Economic Theory*. Sultan Chand & Co.

Henderson JM & Quandt RE. 2000. *Microeconomic Theory: A Mathematical Approach*. McGraw-Hill.

Koutsoyiannis A. 2003. *Modern Microeconomics*. The Macmillan Press.

Silberberg E & Suen W. 2001. *The Structure of Economics – A Mathematical Analysis*. McGraw-Hill.

Varian Hal R. 1999. *Intermediate Microeconomics*. Affiliated East-West Press.

AG ECON 502 MACRO ECONOMIC THEORY

3+0+0

Objective

Macroeconomic theory course is intended to expose the students to macroeconomic concepts and theory, the application of the macro economic theory and implication of the macroeconomic policies.

Theory

UNIT I

Nature and Scope of Macro Economics - Methodology and Keynesian Concepts National Income - Concepts and measurement- Classical theory of Employment and Say's Law-Modern theory of Employment and Effective Demand.

UNIT II

Consumption function- Investment and savings - Concept of Multiplier and Accelerator - Output and Employment - Rate of interest - Classical, Neo classical and Keynesian version- Classical theory Vs Keynesian theory – Unemployment and Full employment.

UNIT III

Money and classical theories of Money and Price - Keynesian theory of money and Friedman Restatement theory of money - Supply of Money - Demand for Money -Inflation: Nature, Effects and control.

UNIT IV

IS & LM frame work - General Equilibrium of product and money markets -Monetary policy - Fiscal policy- Effectiveness of Monetary and Fiscal policy -Central banking. Business cycles - Balance of Payment - Foreign Exchange Rate determination.

Suggested Readings

Ahuja HL. 2007. *Macroeconomics: Theory and Policy*. S. Chand & Co.

Eugene A Diulio 2006. *Macroeconomics*. 4th Ed. Schaums' Outlines.

Gardner Ackely 1987. *Macro Economics: Theory and Policy*. Collier Macmillan.

Dornbusch. 2006. *Macroeconomics*. McGraw Hill Publication

AG ECON 503 RESEARCH METHODOLOGY FOR SOCIAL SCIENCES

1+0+1

Objective

To expose the students to research methodology used in social sciences. The focus will be on providing knowledge related to research process, data collection and data analysis etc.

Theory

UNIT I

Importance and scope of research in agricultural economics. Types of research - Fundamental vs. Applied. Concept of researchable problem – research prioritization – Objectives of research, selection of research problem, the process of research.

UNIT II

Hypothesis – meaning - characteristics - types of hypothesis – review of literature– setting of objective and hypotheses of research problem-.

UNIT III

Project proposals – contents and scope – different types of projects to meet different needs – trade-off between scope and cost of the study. Research design and techniques –Types of research design.

UNIT IV

Preparation of schedule – problems in measurement of variables in agriculture. Interviewing techniques and field problems - methods of conducting survey – Reconnaissance survey and Pre testing. Data collection – assessment of data needs – sources of data collection – discussion of different situations. Mailed questionnaire and interview schedule –structured, unstructured, open ended and closed-ended questions. Scaling Techniques.

UNIT V

Coding editing – tabulation – validation of data. Tools of analysis – data processing. Diagrams and graphs, measures of central tendency, measures of variation, skewness and kurtosis; correlation and regression, testing of hypothesis, ANOVA. Interpretation of results – Preparing research report / thesis – Universal procedures for preparation of bibliography – writing of research articles.

Practical

Exercises in problem identification. Project proposals – contents and scope. Formulation of Objective and hypotheses. Assessment of data needs – sources of data – methods of collection of data. Methods of sampling – criteria to choose – discussion on sampling under different situations. Scaling Techniques –measurement of scales. Preparation of interview schedule - Field testing. Method of conducting survey. Exercise on coding, editing, tabulation and validation of data. Preparing for data entry into computer. Hypothesis testing – Parametric and Non-Parametric Tests. Exercises on format for Thesis / Report writing. Presentation of the results.

Suggested Readings

Black TR. 1993. *Evaluating Social Science Research - An Introduction*. SAGE Publ.

Creswell JW. 1999. *Research Design - Qualitative and Quantitative Approaches*. SAGE Publ.

Dhondyal SP. 1997. *Research Methodology in Social Sciences and Essentials of Thesis Writing*. Amman Publ. House, New Delhi.

Kothari CR. 2004. *Research Methodology - Methods and Techniques*. Wishwa Prakashan, Chennai.

Rangaswamy R.2018. *A Text Book of Agricultural Statistics*. New Age International Publishers, New Delhi.

Venkatasubramanian V. 1999. *Introduction to Research Methodology in Agricultural and Biological Sciences*. SAGE Publ.

AG ECON 504 AGRICULTURAL PRODUCTION ECONOMICS

1+0+ 1

Objective

To expose the students to the concept, significance and uses of production economics techniques.

Theory

UNIT I

Nature, scope and significance of agricultural production economics- Methodology of Production function - Centrality of production functions, assumptions of production functions, commonly used forms - Properties, limitations, specification, estimation and interpretation of commonly used production functions.

UNIT II

Factors of production, classification, interdependence, and factor substitution -Determination of optimal levels of production and factor application -Optimal factor combination and least cost combination of production - Theory of product choice; selection of optimal product combination.

UNIT III

Cost functions and cost curves, components, and cost minimization -Duality theory – cost and production functions and its applications -Derivation of firm's input demand and output supply functions -Economies and diseconomies of scale.

UNIT IV

Technology in agricultural production, nature and effects and measurement - Measuring efficiency in agricultural production; technical, allocative and economic efficiencies - Yield gap analysis-concepts-types and measurement -Nature and sources of risk, modeling and coping strategies.

Practical

Different forms of production functions - specification, estimation and interpretation of production functions – returns to scale, factor shares, elasticity of production - physical optima-economic optima-least cost combination- optimal product choice- cost function estimation, interpretation-estimation of yield gap -incorporation of technology in production functions, measurement of efficiencies - measuring returns to scale and risk analysis.

Suggested Readings

Beattie BR & Taylor CR. 1985. *The Economics of Production*. John Wiley & Sons.

Doll JP & Frank O. 1978. *Production Economics - Theory and Applications*. John Wiley & Sons.

Gardner BL & Rausser GC. 2001. *Handbook of Agricultural Economics*. Vol. I. *Agricultural Production*. Elsevier.

Heady EO. *Economics of Agricultural Production and Resource Use*. Prentice-Hall.

Sankhyan PL. 1983. *Introduction to Farm Management*. Tata Mc Graw Hill.

Objective

To impart adequate knowledge and analytical skills in the field of agricultural marketing issues, and enhance expertise in improving the performance of the marketing institutions and the players in marketing of agricultural commodities.

Theory

UNIT I

Review of Concepts in Agricultural Marketing - Characteristic of Agricultural product and Production – Problems in Agricultural Marketing from Demand and Supply and Institutions sides. Market intermediaries and their role - Need for regulation in the present context - Marketable & Marketed surplus estimation. Marketing Efficiency - Structure Conduct and Performance analysis - Vertical and Horizontal integration - Integration over space, time and form-Vertical coordination.

UNIT II

Marketing Co-operatives – APMC Regulated Markets - Direct marketing, Contract farming and Retailing - Supply Chain Management - State trading, Warehousing and other Government agencies - Performance and Strategies – Market infrastructure needs, performance and Government role - Value Chain Finance.

UNIT III

Role of Information Technology and telecommunication in marketing of agricultural commodities - Market Research-Market information service -electronic auctions (e-bay), e-Chaupals, Agmarket and Domestic and Export market Intelligence Cell (DEMIC) – Market extension.

UNIT IV

Spatial and temporal price relationship – price forecasting – time series analysis – time series models – spectral analysis. Price policy and economic development – non-price instruments.

UNIT V

Theory of storage - Introduction to Commodities markets and future trading - Basics of commodity futures - Operation Mechanism of Commodity markets – Price discovery - Hedging and Basis - Fundamental analysis - Technical Analysis -Role of Government in promoting commodity trading and regulatory measures.

Practical

Supply and demand elasticities in relation to problems in agricultural marketing. Price spread and marketing efficiency analysis. Marketing structure analysis through concentration ratios. Performance analysis of Regulated market and marketing societies. Analysis on contract farming and supply chain management of different agricultural commodities, milk and poultry products. Chain Analysis - quantitative estimation of supply chain efficiency - Market Intelligence – Characters, Accessibility, and Availability Price forecasting. Online searches for market information sources and interpretation of market intelligence reports – commodity outlook - Technical Analysis for important agricultural commodities -Fundamental Analysis for important agricultural commodities - Presentation of the survey results and wrap-up discussion, operational mechanism of future markets.

Suggested Readings

Purecell WD & Koontz SR. 1999. *Agricultural Futures and Options: Principles and Strategies*. 2nd Ed. Prentice-Hall.

Rhodes VJ. 1978. *The Agricultural Marketing System*. Grid Publ., Ohio.

Shepherd SG & Gene AF. 1982. *Marketing Farm Products*. Iowa State Univ. Press.

STAT 501 MATHEMATICAL AND STATISTICAL TECHNIQUES

2+0+1

Objective

To impart adequate knowledge and analytical skills in the field of mathematics and statistical tools and techniques for the development of models and enhance expertise in using such techniques in deriving estimates for the parameters of economic relationship. Use of techniques/methods in reducing fluctuations in the time series data and working out various indices.

Theory

UNIT-I

Differentiation and Optimisation: Partial and total derivatives, Homogenous functions, Euler's rule, Finding the maximum and minimum of a function with two variables: With and without a single equality constraint. Simple economic applications such as elasticity and nature of commodity, consumer's and producer's optimisation problems.

UNIT-II

Integration, Differential Equations, Linear Programming: Indefinite and definite integration of a function with a single variable, method of substitution. Economic applications. *Differential Equations*: Variable separable case, homogenous case, standard linear differential equations, Bernoulli's form, exact equations, linear differential equations with constant coefficients. *Linear Programming*: Setting up of the problem, various definitions, solution by graphical method.

UNIT-III

Statistical methods: Measures of central tendency, dispersion, skewness and kurtosis. Index number analysis, Time Series, Correlation and Regression, Probability: Methods of Trend Measurement: Quadratic, exponential, modified exponential, Gompertz and logistic forms. Measurement of seasonal indices: Simple average, ratio to moving average, ratio to trend. Multiple and partial correlation involving three variables, multiple regression with two explanatory variables, regression coefficients, definitions of r , r^2 , R^2 . Probability: Classical and axiomatic definitions, additive and multiplicative rules, random variable and expected values, probability distributions: Cases of binomial, Poisson, normal.

UNIT-IV

Sampling and census method: Types of sampling and sampling errors, Statistical Inference and Hypothesis Testing: Parameters and estimates, sampling distribution of a statistic, standard error, and distribution of sample mean properties of an ideal estimator, interval estimation, and confidence interval. Basic terminology of hypothesis testing, large and small sample tests, tests of significance of means, single proportion, difference between two proportions, simple correlation coefficient, regression coefficient, tests Involving F and X^2 distributions.

Practical

Application of difference and differential equations in the formulation and solving economic problems. Computation of trends and index numbers. Use of correlation and regression techniques both for time series and cross-sectional data. Interpretation of results. Meaning and use of parametric tests.

Suggested Readings

- Chiang, A.C. (Latest): *Fundamental Methods of Mathematical Economics*, McGraw Hill
- Yamane, Taro (1972), *Mathematics for Economists*, Prentice Hall, N Delhi.
- Allen, R.G.D. (Latest) : *Mathematical Analysis for Economists*, Macmillan.
- S.P Gupta: *Statistical Methods*, Sultan Chand Publication
- Freund, J. E. (Latest) : *Mathematical Statistics*, Prentice Hall India, 5th Edition.
- Arora, P. N., Sumeet Arora and S. Arora (Latest) : *Comprehensive Statistical Methods*, S. Chand & Company Ltd.

- David Anderson J. Dennis Sweeney: *Statistics for Business and Economics* CenGage Learning.

LIB 501 LIBRARY AND INFORMATION SERVICES 0+0+1

Objective: To equip the library users with skills to trace information from libraries efficiently, to apprise them of information and knowledge resources, to carry out literature survey, to formulate information search strategies and to use modern tools (Internet, OPAC, search engines etc) of information search.

Practical: Introduction to library and its services; role of libraries in education, research and technology transfer, classification systems and organization of library; sources of information-primary sources, secondary sources and tertiary sources; intricacies of abstracting and indexing services (science citation index, biological abstracts, chemical abstracts, CABI abstracts, etc);tracing information from reference sources; literature survey; citation techniques/preparation of bibliography; use of CD-ROM Databases, online public access catalogue and other computerised library services; use of internet including search engines and its resources; e-resources access methods.

ENG 502 TECHNICAL WRITING AND COMMUNICATION SKILLS 0+0+1

Objective

To equip the students/scholars with skills to write dissertations, research papers, etc.

To equip the students/scholars with skills to communicate and articulate in English (verbal as well as writing).

Practical

Technical Writing - Various forms of scientific writings- theses, technical papers, reviews, manuals, etc; Various parts of thesis and research communications (title page, authorship contents page, preface, introduction, review of literature, material and methods, experimental results and discussion); Writing of abstracts, summaries, précis, citations etc.; commonly used abbreviations in the theses and research communications; illustrations, photographs and drawings with suitable captions; pagination, numbering of tables and illustrations; Writing of numbers and dates in scientific write-ups; Editing and proof-reading; Writing of a review article.

Communication Skills - Grammar (Tenses, parts of speech, clauses, punctuation marks); Error analysis (Common errors); Concord; Collocation; Phonetic symbols and transcription; Accentual pattern: Weak forms in connected speech: Participation in group discussion: Facing an interview; presentation of scientific papers.

Suggested Readings

Chicago *Manual of Style*. 14th Ed. 1996. Prentice Hall of India.

Collins' *Cobuild English Dictionary*. 1995. Harper Collins.

Gordon HM & Walter JA. 1970. *Technical Writing*. 3rd Ed. Holt, Rinehart & Winston.

Hornby AS. 2000. *Comp. Oxford Advanced Learner's Dictionary of Current English*. 6th Ed. Oxford University Press.

James HS. 1994. *Handbook for Technical Writing*. NTC Business Books.

Joseph G. 2000. *MLA Handbook for Writers of Research Papers*. 5th Ed. Affiliated East-West Press.

Mohan K. 2005. *Speaking English Effectively*. MacMillan India.

Richard WS. 1969. *Technical Writing*. Barnes & Noble.

Robert C. (Ed.). 2005. *Spoken English: Flourish Your Language*. Abhishek.

Sethi J & Dhamija PV. 2004. *Course in Phonetics and Spoken English*. 2nd Ed. Prentice Hall of India.
Wren PC & Martin H. 2006. *High School English Grammar and Composition*. S. Chand & Co.

IPM 503 INTELLECTUAL PROPERTY MANAGEMENT IN AGRICULTURE 1+0+0

Objective

The Course Objective of the course is to create awareness about intellectual property rights in agriculture. The course deals with management of patents, trademark, geographical indications, copy rights, designs, plant variety protection and biodiversity protection. The students will be taught on the marketing and commercialization of intellectual properties.

Theory

UNIT I

World Trade Organization- Agreement on Agriculture (AoA) and Intellectual Property Rights (IPR) - Importance of Intellectual Property Management - IPR and Economic growth- IPR and Bio diversity - Major areas of concern in Intellectual Property Management -Technology Transfer and commercialization-Forms of different Intellectual Properties generated by agricultural research.

UNIT II

Discovery *versus* Invention - Patentability of Biological Inventions - Method of Agriculture and Horticulture- procedure for patent protection: Preparatory work. Record keeping, writing a patent document, filing the patent document -Types of patent application-patent application under the Patent cooperation treaty (PCT).

UNIT III

Plant genetic resources -Importance and conservation - Sui Generic System -Plant Varieties Protection and Farmers Rights Act- Registration of Extant varieties - Registration and protection of New Varieties / Hybrids / Essentially Derived Varieties - Dispute prevention and settlement -Farmers' Rights.

UNIT IV

Trademark- Geographical Indications of Goods and Commodities – Copy rights- Designs – Biodiversity Protection.

UNIT V

Procedures for commercialization of technology - Valuation, Costs and Pricing of Technology- Licensing and implementation of Intellectual Properties- Procedures for commercialization – Exclusive and non-exclusive marketing rights-Research Exemption and benefit sharing.

Suggested Readings

Ganguli P. 2001. *Intellectual Property Rights –Unleashing the Knowledge Economy*. Tata McGraw Hill.

Gupta AK. 2003. *Rewarding Conservation of Biological and Genetic Resources and Associated Traditional Knowledge and Contemporary Grass Roots Creativity*. Indian Institute of Management, Ahmedabad.

Khan SA & Mashelkar R. 2004. *Intellectual Property and Competitive Strategies in the 21st Century*. Kluwer Law International, The Hague.

AG ECON 506 NATURAL RESOURCE AND ENVIRONMENTAL ECONOMICS 1+0+1

Objective

To introduce economics principles related to natural resource and environmental Economics. To explore the concept of efficiency and the efficient allocation of natural Resources. To understand the economics of why environmental problems, occur. To explore the concept of efficiency and the efficient allocation of pollution control and pollution prevention decisions. To understand the environmental policy issues and alternative instruments of environmental policies

Theory

UNIT I

Concepts, classification and problems of natural resource economics – Economy- Environment interaction – The material balance principle, Entropy law-Resources scarcity - Limits to growth - Measuring and mitigating natural resource scarcity – Malthusian and Ricardian scarcity – scarcity indices - Resource scarcity and technical Change.

UNIT II

Theory of optimal extraction renewable resources –economic models of oil extraction- efficiency - time path of prices and extraction - Hotelling's rule, Solow-Harwick's Rule. Theory of optimal extraction exhaustible resources – economic models of forestry and fishery.

UNIT III

Efficiency and markets – market failures - externalities – types - property rights –transaction costs – Coase's theorem and its critique - public goods – common property and open access resource management - Collective action.

UNIT IV

Environmental perspectives - biocentrism, sustainability, anthropocentrism -Environmental problems and quality of environment - Sources and types of pollution -air, water, solid waste, land degradation – environmental and economic impacts - Economics of pollution control - efficient reduction in environmental pollution.

UNIT V

Environmental regulation – economic instruments - pollution charges – Pigovian tax - tradable permits – indirect instruments - environmental legislations in India.

UNIT VI

Concept of sustainable development - Economic Perspective - Indicators of sustainability Relation between development and environment stress-Environmental Kuznet's curve Environmental Accounting – resource accounting methods - International Environmental Issues – climate change – likely impacts -mitigation efforts and international treaties.

Practical

Exhaustible resource management –optimum rate of oil extraction. Renewable resource management – optimum harvest of Forestry/fishery. Exercise on pollution abatement –I. Exercise on pollution abatement –II. Concepts in valuing the environment. Taxonomy of valuation techniques. Productivity change method – substitute cost method - Hedonic price method - Travel cost method -Contingent valuation methods. Discount rate in natural resource management. Environment impact assessment Visit to Pollution Control Board.

Suggested Readings

- Ahmad Y, El Serafy S & Lutz E. (Eds.). 1989. *Environmental Accounting for Sustainable Development*. World Bank.
- Freeman AM. 1993. *The Measurement of Environmental and Resource Values*. Resources for the Future Press, Baltimore.
- Hackett SC. 2001. *Environmental and Natural Resource Economics: Theory, Policy, and the Sustainable Society*. M. E. Sharpe, Armonk, NY.
- Hartwick JM & Olewiler ND. 1998. *The Economics of Natural Resource Use*. 2nd Ed. Addison-Wesley Educational Publ.
- Kerr JM, Marothia DK, Katar Singh, Ramasamy C & Bentley WR. 1997. *Natural Resource Economics: Theory and Applications in India*. Oxford & IBH.
- Kolstad CD. 2000. *Environmental Economics*. Oxford Univ. Press.
- Pearce DW & Turner K. 1990. *Economics of Natural Resources and the Environment*. John Hopkins Univ. Press.
- Prato T. 1998. *Natural Resource and Environmental Economics*. Iowa State Univ. Press.
- Sankar U. 2001. *Environmental Economics*. Oxford Univ. Press.
- Sengupta R. 2000. *Ecology and Economy, an Indian Perspective*. Oxford Univ. Press.
- Tietenberg T. 2003. *Environmental and Natural Resource Economics*. 6th Ed. Addison Wesley.

AG ECON 507 ECONOMETRICS

2+0+1

Objective

The objective of the course is to impart knowledge on econometric tools to the students of agricultural economics. Training in econometrics will help the student to analyze the economic problem by applying quantitative techniques.

Theory

UNIT I

Introduction – relationship between economic theory, mathematical economics, models and econometrics, methodology of econometrics-regression analysis.

UNIT II

Basic two variable regression - assumptions estimation and interpretation approach to estimation - OLS, MLE and their properties - extensions to multi variable models-multiple regression estimation and interpretation.

UNIT III

Violation of assumptions – identification, consequences and remedies for Multicollinearity, heteroscedasticity, autocorrelation – data problems and remedial approaches - model misspecification.

UNIT IV

Use of dummy variables-limited dependent variables – specification, estimation and interpretation.

UNIT V

Simultaneous equation models – structural equations - reduced form equations - identification and approaches to estimation.

Practical

Single equation two variable model specification and estimation – hypothesis testing- transformations of functional forms and OLS application-estimation of multiple regression model - hypothesis testing - testing and correcting specification errors - testing and managing Multicollinearity - testing and managing heteroscedasticity - testing and managing autocorrelation - estimation of regressions with dummy variables - estimation of regression with limited dependent variable - identification of equations in simultaneous equation systems.

Suggested Readings

Gujarati DN. 2003. *Basic Econometrics*. McGraw Hill.

Johnson AG Jr., Johnson MB & Buse RC. 1990. *Econometrics - Basic and Applied*. MacMillan.

Kelejan HH & Oates WE. 1994. *Introduction to Econometrics Principles and Applications*. Harper and Row Publ.

Koutsoyianis A. 1997. *Theory of Econometrics*. Barner & Noble.

Maddala GS. 1992. *Introduction to Econometrics*. MacMillan.

Maddala GS. 1997. *Econometrics*. McGraw Hill.

Pindyck RS & Rubinfeld DL. 1990. *Econometrics Models and Econometric Forecasts*. McGraw Hill.

MATH 501 OPERATIONS RESEARCH

2+0+1

Objective

The objective of the course is to impart knowledge of linear programming techniques and to impart skill for their use in preparation of optimum plans for agriculture development.

Theory

UNIT I

Decision Making- Concepts of decision making, introduction to quantitative tools, introduction to linear programming, objectives, assumptions and uses of LP in different fields, formulation of linear programming problem, graphic solution to problems, formulation of problems.

UNIT II

Simplex Method: Concept of simplex Method, solving profit maximization and cost minimizations problems. Formulation of problems in agriculture sector as linear programming models and solutions.

UNIT III

Extension of Linear Programming models: Variable resource and price programming, transportation problems, recursive programming, dynamic programming.

UNIT IV

Game Theory- Concepts of game theory, two-person constant sum, zero sum game, saddle point, solution to mixed strategies, the rectangular game as Linear Programme.

UNIT V

Basic concepts in assignment model, inventory model.

Practical

Graphical and algebraic formulation of linear programming models. Solving of maximization and minimization problems by simplex method. Formulation of the simplex matrices for typical farm situations, problems related to transportation, game theory and inventory management.

Suggested Readings

Dorfman R. 1996. *Linear Programming & Economic Analysis*. McGraw Hill.

Loomba NP. 2006. *Linear Programming*. Tata McGraw Hill.

Shenoy G. 1989. *Linear Programming-Principles & Applications*. Wiley Eastern Publ.

Vaserstein. 2006. *Introduction to Linear Programming*. Pearson Education Publication

MBA 565 PROJECT MANAGEMENT AND ENTREPRENEURSHIP DEVELOPMENT

3+0+1

Objective

The objective of this course is to expose the learner to the fields of project management and entrepreneurship development. Focus will be to train the students to develop new projects and encouraging them to start their own ventures.

Contents

UNIT I

Concept, characteristics of projects, types of projects, project identification, and Project's life cycle.

UNIT II

Project feasibility- market feasibility, technical feasibility, financial feasibility, and economic feasibility, social cost-benefit analysis, project risk analysis.

UNIT III

Network Methods: Meaning, Network Analysis, Requirements for Network Analysis, Critical Path Method (CPM), Programme Evaluation and Review Technique (PERT), Project scheduling and resource allocation.

UNIT IV

Financial appraisal/evaluation techniques- discounted/non-discounted cash flows; Net present values, profitability index, Internal rate of returns; Cost benefits ratio; Accounting rate of return, Payback period, Project implementation; Cost overrun, Project control and information system.

UNIT V

Entrepreneurship, significance of entrepreneurship in economic development qualities of entrepreneur, entrepreneurship development programs and role of various institutions in developing entrepreneurship, life cycles of new business, environmental factors affecting success of a new business, reasons for the failure and visible problems for business, developing effective business plans, Procedural steps in setting up of an industry.

Practical

Field visit to successful enterprises-Study of characteristics of successful entrepreneurs. Development of project proposal -Case studies of success / failure enterprises-Exercise on market survey-Field visit to financial institutions. Simulated exercise to understand management process-Field visit to extension organizations to understand the functions of management -Group exercise on development of short term and long-term plan-Simulated exercise on techniques of decision making-Designing organizational structure -Group activity on leadership development skills.

Suggested Readings

- Chandra P. 2005. *Project Management*. Tata McGraw Hill.
Gopal Krishan P & Nagarajan K. 2005. *Project Management*. New Age.
Hisrich RD & Peters MP. 2002. *Entrepreneurship*. Tata McGraw Hill.
Kaplan JM. 2003. *Patterns of Entrepreneurship*. John Wiley & Sons.
Nandan H. 2007. *Fundamentals of Entrepreneurship Management*. Prentice Hall.
Ramamoorthy VE. 2005. *Textbook of Project Management*. MacMillan.

MBA 567 FINANCIAL MANAGEMENT 3+0+1

Objective

The course aims to make students proficient in concepts and techniques of financial management. Focus will be on developing understanding of the application of Financial and investment decisions.

Contents

Theory

UNIT I

Introduction to Financial Management, Its meaning and functions, Interface of financial management with other functional areas of a business. Financial Statements and Analysis - Proforma Balance Sheet and Income Statements, ratio, time series, common size and Du-Pont analysis.

UNIT II

Capital Structure, Determinants of size and composition of Capital Structure, Capital Structure Theories; Long term financing and Cost of Capital.

UNIT III

Working Capital Management, Determinants of Size and Composition of Working Capital, Cash and receivables management, Working Capital Management Theories, Financing of Working Capital.

UNIT IV

Financial planning and Forecasting, Financial planning for mergers & acquisition, Capital Budgeting, Undiscounted and Discounted cash flow methods of Investment Appraisal; Hybrid finance and lease finance.

UNIT V

Business Financing System in India, Money and Capital Markets, Regional and All - India Financial Institutions; venture capital financing and its stages, micro finance and International financial management.

UNIT VI

Project Approach in financing agriculture. Financial, economic and environmental appraisal of investment projects. Identification, preparation, appraisal, financing and implementation of projects. Project Appraisal techniques – Undiscounted measures. Time value of money – Use of discounted measures - B-C ratio, NPV and IRR. Agreements, supervision, monitoring and evaluation phases in appraising agricultural investment projects. Network Techniques – PERT and CPM.

Practical

Demand and supply of institutional credit and Over dues-: An overview, Rural Lending Programmes of Commercial Banks, Preparation of District Credit Plan, Co-operative credit, Preparation of financial statements using farm level data, Farm credit appraisal techniques and farm financial analysis, Performance of Micro Financing Institutions, Identification and formulation of investment projects, Project appraisal techniques. Financial Risk and risk management strategies – crop insurance schemes,

Suggested Readings

Chandra P. 2000. *Financial Management*. Tata McGraw Hill.

Khan MY & Jain PK. 2004. *Financial Management: Text, Problems and Cases*. Tata McGraw Hill.

Pandey IM. 1997. *Financial Management*. Vikas Publ.

Ramachandran N & Kakani RK. 2005. *Financial Accounting for Management*. Tata McGraw Hill.

Van Horne JC. 1997. *Financial Management and Policy*. Prentice Hall.

CSE 551 COMPUTER APPLICATIONS FOR AGRICULTURAL ECONOMICS 2+0+1

Objective

The basic objective of this subject is to provide knowledge about computer application in agricultural economics.

Theory

UNIT I

Information: Information concepts and processing; Evaluation of information processing techniques; Data; Information language and Communication Computer Organization: Central Processing Unit; Storage Devices: Primary and secondary storage devices; Input–Output devices; Generations of computer systems and growth of personal computers. Memory buffers: input /output buffers; Graphic interfacing; I/O Processors and multi-user environment

UNIT II

Overview: Languages; Compilers; Interpreters; Assemblers; OOPS; SQL; Java (an introduction) Use of MS-Office: Basics of MS-Word, MS-Excel and MS-PowerPoint; SPSS, Application of these software's for documentation and making reports; preparation of questionnaires, presentations, tables and reports (Practical)

UNIT III

Introduction to Operating Systems: Concept of an operating system; Operating system as resource manager and coordinator of devices and jobs; Elements of Window operating systems; Use of menus, tools and commands of window 2010/2015 operating systems Computer Networking: Single and multi-user; Multi-task computer systems; File maintenance; Concept of computer network: functions and scope of LAN, WAN Network; Internet; E-mail

UNIT IV

Internet and its uses: Architecture and functioning of Internet; World-wide web and its structure; Role of internet service providers; Website development related to different specialisations of economics; Searching and downloading from internet and uploading of websites in some cases; Updating of some simple websites

UNIT V

Microsoft Access & Spreadsheet: Concept of database creation and modification of database files; Expressions and functions Application: Information Technology (IT) applied to various functional areas of agricultural economics, such as Production / Operations, Marketing, Human Resource, Finance and Material inputs Management

Practical

Conversion of different number types; creation of flow chart; conversion of algorithm/flow chart to program; mathematical operators; operator precedence; sequence, control and iteration; arrays and string processing; pointers and file processing. Network and mail configuration; using network services; browsing of internet; creation of web pages; creation of websites using HTML and creation of websites using DHTML.

Suggested Readings

Awad, Elias M.; *Electronic Commerce: From Vision to Fulfilment*. (2007). Electronic Commerce, (New Delhi: Pearson Education).

Basandra S K- .2003. *Computers Today* (Gal gotia).

Cyganski- *Information Technology: Inside and Outside* (Pearson)

Kolkata, Ravi and Marcia Robinson . 2001. *Business 2.0: Roadmap for Success*.

Leaon, Alexis & Mathews: *Information Technology* (Vikas)

Leon A and Leon M-.1999. *Introduction to Computers* (Leon Tech world..

Loudon, Kenneth C. and Carol Guercio Traver: *E-commerce: business, technology, society*. ., (New Delhi : Pearson Education).

Lucas Jr H C- *Information technology for management* (Tata McGraw- Hill), 6th ed,

P.R. and Dave Chaffey. 2005. *E -Marketing E-Excellence; The Heart of e- Business*, Smith, (UK: Elsevier Ltd.)

S.Saxena 2003. *A first course in computers*. Vikas, publications.

AG ECON 591 MASTER'S SEMINAR-I

1+0+0

This course covers contemporary issues with respect to related field of research undertaken by the student. The students are asked to prepare PPTs on the contemporary issues which they have to present in front of the faculty and students. The presentation of the students will be evaluated by the three faculty members.

AG ECON 600 MASTER RESEARCH (Synopsis of thesis)

0+0+2

Here the student has to follow the steps in choosing her research problem under the guidance of advisory committee. The research project proposal is prepared in view of the literature available and the research gaps. The synopsis is designed as per the research methodology techniques in the subject and guidelines of the university. PPTs are made and synopsis seminar will be delivered by the student.

AG ECON 508 ECONOMICS OF GROWTH AND DEVELOPMENT

2+0+0

Objective

To provide orientation to the students regarding the concepts and measures of economic development. To provide orientation on theories of economic growth and relevance of theories in developing countries. To make them to understand the agricultural policies and its effect on sustainable agricultural development. To make them to understand the globalization and its impact on agricultural development.

Theory

UNIT I

Development Economics – Scope and Importance - Economic development and economic growth - divergence in concept and approach - Indicators and Measurement of Economic Development – GNP as a measure of economic growth – New Measures of Welfare – NEW and MEW – PQLI – HDI – Green GNP -Criteria for under development – Obstacles to economic development – Economic and Non-Economic factors of economic growth.

UNIT II

Economic development – meaning, stages of economic development, determinants of economic growth. Theories of economic growth – Ricardian growth model –The Harrod – Domar Model – The Neo- classical Model of Growth – The Kaldor Model – Optimal Economic Growth – Recent experiences of developing country economies in transition – Role of state in economic development – Government measures to promote economic development. Introduction to development planning.

UNIT III

Role of agriculture in economic / rural development – theories of agricultural development – Population and food supply - need for sound agricultural policies –resource policies – credit policies – input and product marketing policies – price policies.

UNIT IV

Development issues, poverty, inequality, unemployment and environmental degradation – Models of Agricultural Development – Induced Innovation Model - policy options for sustainable agricultural development.

Suggested Readings

Chakaravathi RM. 1986. *Under Development and Choices in Agriculture*. Heritage Publ., New Delhi.

Diwett KK. 2002. *Modern Economic Theory*. S. Chand & Co.

Eicher KC & Staatz JM. 1998. *International Agricultural Development*. Johns Hopkins Univ. Press.

Frank E. 1992. *Agricultural Polices in Developing Countries*. Cambridge Univ.Press.

Ghatak S & Ingersent K. 1984. *Agriculture and Economic Development*. Select Book Service Syndicate, New Delhi.

Jhingan ML. 1998. *The Economics of Development and Planning*. Vrinda Publ.

Jules PN. 1995. *Regenerating Agriculture – Polices and Practice for Sustainability and Self Reliance*. Vikas Publ. House.

Naqvi SNH. 2002. *Development Economics – Nature and Significance*. Sage Publ.

Objective

The expected outcome of this course will be creating awareness among the students about the role of International Economics on National welfare.

Theory

UNIT I

Scope and Significance of International Economics - The role of trade- General Equilibrium in a Closed Economy (Autarky Equilibrium) – Equilibrium in a Simple Open Economy - Possibility of World Trade - Trade gains and Trade Equilibrium.

UNIT II

Tariff, Producer Subsidy, Export Subsidy, Import Quota and Export Voluntary Restraints- The Case of Small Country and Large Country Case.

UNIT III

Ricardian Model of Trade- Specific Factors Model- Heckscher - Ohlin Model -Trade Creation and Trade Diversion – Offer Curve - Export Supply Elasticity and Import Demand Elasticity – comparative Advantage and Absolute Advantage.

UNIT IV

Official Exchange Rate and Shadow Exchange Rate - Walras Law and Terms of Trade – Trade Blocks.

IMF, World Bank, IDA, IFC, ADB – International Trade agreements – Uruguay Round – GATT – WTO.

Practical

Producer's Surplus, Consumer's Surplus, National Welfare under Autarky and Free Trade Equilibrium with small and large country assumption- Estimation of Trade Gains- Estimation of competitive and comparative measures like NPC, EPC, ERP and DRC- Estimation of Offer Curve Elasticity- Estimation of Effect of Tariff, Export Subsidy, Producer Subsidy, Import Quota and Export Voluntary Restraints on National Welfare- Estimation of Ricardian Model - Estimation of Effect of Trade under Specific Factor Model- Estimation of trade Equilibrium under Heckscher -Ohlin model - Trade Creation and Diversion.

Suggested Readings

Apple Yard DR & Field AJ Jr. 1995. *International Economics - Trade, Theory and Policy*. Irwin, Chicago.

Cherunilam F. 1998. *International Economics*. Tata McGraw Hill.

Krugman PR & Obstfeld M. 2000. *International Economics – Theory and Policy*. Addison-Wesley.

AG ECON 510 RURAL MARKETING (Option i)

3+0+0

Objective

To provide understanding regarding issues in rural markets like marketing environment, consumer behaviour, distribution channels, marketing strategies, etc.

Theory

UNIT I

Concept and scope of rural marketing, nature, type and characteristics of rural markets, potential of rural markets in India.

UNIT II

Scio-cultural, economic and institutional factors affecting rural marketing, factors affecting producers' surplus.

UNIT III

Rural consumer's behaviour - behavior of rural consumers and farmers; buyer characteristics and buying behaviour; Rural v/s urban markets.

UNIT IV

Rural marketing strategy - Marketing of consumer durable and non-durable goods and services in the rural markets with special reference to product planning; product mix, pricing Course Objective, pricing policy and pricing strategy.

UNIT V

Product promotion - Media planning, planning of distribution channels, and organizing personal selling in rural market in India.

Suggested Readings

- Krishnamacharyulu CSG & Ramakrishan L. 2002. *Rural Marketing*. Pearson Edu. Ramaswamy VS & Nanakumari S. 2006. *Marketing Management*. 3rd Ed. MacMillan.
Singh AK & Pandey S. 2005. *Rural Marketing*. New Age.
Singh Sukhpal. 2004. *Rural Marketing*. Vikas Publ. House.

AG ECON 510 COMMODITY FUTURES TRADING (Option ii)

3+0+0

Objective

This course is aimed at providing the basic understanding and the mechanics and value of futures markets for speculators and hedgers who in turn will serve as price risk management activities of agribusiness firms.

Theory

UNIT I

History and Evolution of commodity markets – Terms and concepts: spot, forward and futures Markets – factors influencing spot and future markets. Speculatory mechanism in commodity futures.

UNIT II

Transaction and settlement – delivery mechanism - role of different agents - trading strategies - potential impact of interest rate, Foreign Exchange, FDI in Commodity Markets.

UNIT III

Risk in commodity trading, importance and need for risk management measures - managing market price risk: hedging, speculation, arbitrage, swaps - pricing and their features.

UNIT IV

Important Indian commodity exchanges - contracts traded – special features -Regulation of Indian commodity exchanges - FMC and its role.

UNIT V

Fundamental V/S Technical analysis – construction and interpretation of charts and chart patterns for analyzing the market trend – Market indicators – back testing. Introduction to technical analysis software – analyzing trading pattern of different commodity groups.

Suggested Readings

Kaufman PJ. 1986. *The Concise Handbook of Futures Markets*. John Wiley & Sons.

Leuthold RM, Junkus JC & Cordier JE. 1989. *The Theory and Practice of Futures Markets*. Lexington Books.

Lofton T. 1993. *Getting Started in Futures*. 3rd Ed. John Wiley & Sons.

Purcell WD. 1991. *Agricultural Futures and Options: Principles and Strategies*. Macmillan Publ.

Wasendorf RR & McCafferty 1993. *All about Commodities from the Inside Out*. McGraw-Hill.

AG ECON 510 HISTORY OF ECONOMIC THOUGHT (Option iii) 3+0+0

Objective

The study of economic thought helps the students to understand the origin of economics and how the economic ideas have been instrumental in shaping the economic and political policies of different countries. The study of the subject helps to avoid the mistakes committed by earlier economic thinkers.

Theory

UNIT – I

Mercantilism: Main Principles. Theory of economic development; Views of Keynes, Petty, Hume and Cantillon on Mercantilism: physiocracy: Natural Order, Agriculture and Product net, Social classes. Tableau Economique.

UNIT – II

The Classical Period: Economic Thought of Adam Smith, David Ricardo, and J. S. Mill with special reference to their views on value, distribution international trade and economic development; Malthus theory of population; Says law of market. Ricardo Malthus controversy on Say's law of market.

UNIT – III

Socialistic Economic Thought: Socialist critique of classical economic thought with special references to the views of Saint Simon, Sismondi and Proudhon. The Historical critics of Classicism, Karl Marx method of Economic analysis. Marx of economic crises. Transformation Problem.

UNIT – IV

The Neo-Classical Period: Similarity and differences between classical and neo-classical thought; The Marginal Revolution with special reference to the contribution of the Austrian School, Leon Walras, Jevons.

UNIT V

Post Marshalling Development in Economic Theory: Contribution of Joan Robinson, E. H. Chamberlin; J. M. Keynes and Post Keynesian developments in economic theory

Suggested Readings

- Dasgupta, A.K. (Latest): *Epochs of Economic Theory*, Oxford University Press, New Delhi.
- Brien, D.P.O: *The Classical Economists*, London, Oxford University Press, Latest.
- Eric Roll (Latest): *History of Economic Thought*, Faber and Faber (Rupa).
- Gide, C. and Rist C. (Latest): *A History of Economic Doctrines*, George G. Harp & Co.
- Blaug, M. (Latest): *Economic Theory in Retrospect*, Vikas Publishing House.
- Schumpeter, J.A. (Latest): *History of Economic Thought*, Oxford University Press.
- Tom Bottomore. 1985. *Dictionary of Marxist Thought*, Basic Black Well.

AG ECON 510 PUBLIC FINANCE (Option iv)

3+0+0

Objective

To introduce students to the public sector reform agenda with a focus on public finance issues; - to demonstrate administrative, political, and economic constraints to public finance reforms; - to develop analytical skills of the students in three major areas of public finance reforms (performance-based budgeting, mid-term financial planning, budget decentralization); - to train students how to develop budgeting and performance evaluation systems for public sector institutions; - to develop students' skills on how to write a public policy paper and make a presentation on public policy issues.

Theory

UNIT-I

Scope of Public Finance: Meaning & scope of public finance. Private and Public Goods: Role of Government in economic activity; allocation, distribution & stabilisation functions. Efficient Provision of Public Goods in a Partial and General Equilibrium Approach. Role of Budget with Special Reference to the Goal of Distribution. Performance and programming budgeting. Classification of budgets.

UNIT-II

Meaning and Type of Taxes: Requirements of a good tax structure. Approaches to taxation: micro analysis of direct and indirect taxes; individual income tax, corporation income tax, sales tax including value-added tax and expenditure tax. Incidence analysis in a partial and general equilibrium setting. Excess burden, Effects of taxation on work efforts, Savings and investment.

UNIT-III

Growth and Structure of Public Expenditure: Effects on savings, investment & growth. Wagner's law and Peacock-Wiseman Hypothesis. Pattern of public expenditure in India and recent reforms in India.

UNIT-IV

Fiscal Policy- Neutral & compensatory & functional finance; balanced budget multiplier
Deficit Finance; Issues Relating to Public Debt: Debt Burden Analysis and Management of Public Debt; Recent Policy in India.

UNIT V

Union- state financial relations: Horizontal & vertical imbalances; the finance commission. Fiscal federalism- theory & problem; problem of centre state financial relations in India.

Suggested Readings

- Brown, C. V. and Jackson, P. M. 1990. *Public Sector Economics*, 4th edition, Basil Blackwell, Oxford.
- Musgrave, R. A. & Musgrave, P. B. 1973. *Public Finance in Theory and Practice*, International Edi., McGraw Hill.
- Houghton, R. W. (ed.) 1970. *Public Finance*, Harmondsworth Penguin Books.
- Peacock, and Straw, G. K. 1970. *The Economic Theory of Fiscal Policy*, George Allen & Unwin, London.
- S.K Singh: *Public Finance Theory & Practices*. S. Chand Publication
- Raghavendra Jha. 1999. *Modern Public Economics*, Routledge.

- Misra & Puri (Latest Edi.) *Indian Economy*, Himalaya Publication
- Dutt.& Sundram: (Latest Edi.) *Indian Economy*, S. Chand Publication

AG ECON 510 HEALTH ECONOMICS - I (Option v)

Objective

To make understandable issues related to efficiency, effectiveness, value and behaviour in the production and consumption of health and healthcare. In broad terms, here the students are taught about the functioning of healthcare systems and health-affecting behaviours. The tools and techniques through which health related issues can be studied are also make understood through empirical data.

Theory

UNIT –I

Relevance of Economics in Health and Medical care. Overview of health economics; concepts, definition and scope of health economics. Difference between health, health care and medical care, Basic concepts used in health economics, Measures of health status, economic development, health services and health.

UNIT-II

Micro - economic tools for health economics: The law of demand, Price elasticity of demand, the law of supply, equilibrium, the theory of firm behaviour, imperfect competition, specification and measurement of economic variables and their relationship, health status indicators.

UNIT-III

Health care: India's Potential. Stakeholders of healthcare industry, Measurement of medical care, changes in health status, demand for medical care, and India's share of world's health problems. Determinants of demand for health care, progress of health care supply in India.

UNIT-IV

Public policy on health and health care. Challenges in rural health care, public and private expenditure in health care, policy reforms in health care sector, steps in building a high-class health care facility.

Selected Readings

- James W. Henderson. 2005. *Health Economics and Policy*; Thomson-South-Western, (Indian edition by Akash Press, New Delhi).
- Banerjee, D. 1975. *Social and Cultural Foundations of Health Service Systems of India*, Inquiry, Supplement to Vol. XII, June.
- Banerjee, D. 1982. *Poverty, class and Health Culture in India*, Vol. I Parachi Prakashan, New Delhi.
- Gandhian Institute for rural and Family Planning 1972. *Studies on Mortality in India*, Monograph Series No. 5.
- Madan, T. N.1980. *Doctors and Society –Three Asian Case Studies*, Vikas Publishing House, Delhi.
- Naik, J. P. 1977. *An alternative System of Health Care services in India – Some Proposals*, ICSSR, Delhi

- Feldstein, M. S. 1977. *Economic analysis of Health Service Efficiency*, North Holland, Amsterdam. Jimenez E. 1987. *Pricing Policy in the Social Sectors*, The Johns Hopkins University.
- Philip Jacobs. 1997. *The Economics of Health & Medical Care*, Anas pen publication

AG ECON 591 MASTER'S SEMINAR- II

1+0+0

This course covers contemporary issues in Economics. The students are asked to prepare PPTs on the contemporary issues of Economics which they have to present in front of the faculty and students. The presentation of the students will be evaluated by the three faculty members.

AG ECON 600 MASTER RESEARCH (Preparation of questionnaire)

0+0+2

Here, the major advisor shall sign the registration cards for registering the work to be accomplished (Preparation of questionnaire) under this course.

AG ECON 600 MASTER RESEARCH (Data collection, analysis & thesis writing) 0+0+16

Here, the major advisor shall sign the registration cards for registering the work to be accomplished (Analysis of data & thesis writing) under this course.

