GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA

MASTER OF ARTS IN ECONOMICS

Syllabus under Choice Based Credit System (CBCS)
Total Credits: 90

Syllabus effective from Academic Year 2023-24

P.G. DEPARTMENT OF ECONOMICS
Government Autonomous College, Rourkela
ODISHA: - 768019

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MISSION

M1	Educate society for generations by providing transformative education with deep disciplinary knowledge and concern for environment
M2	Develop problem solving, leadership and communication skill in student participants to serve the organisation of today and tomorrow
M3	Aim for the holistic development of the students by giving them value based ethical education with concern for society
M4	Foster entrepreneurial skills and mindset in the students by giving life-long learning to make the them responsible citizens

Programme Education Objectives

PEO1	Understand the nature and basic concepts of Economics.
PEO2	Analyse the relationships among different concepts
PEO3	Perform procedures as laid down in the areas of study
PEO4	Apply the Basic Concepts learned to execute them

Programme Outcomes

PO-1	**Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions
PO-2	**Effective Communication:** Will be able to speak, read, write and listen clearly in person and through electronic media in English and in one Indian Language
PO-3	**Social Interaction (Interpersonal Relation):** Elicit views of others, mediate disagreements and prepared to work in team
PO-4	Entrepreneurship Capability: Demonstrate qualities to be prepared to become an entrepreneurship
PO-5	Ethics: Recognize different value systems including your own, understand the moral dimensions and accept responsibility for them
PO-6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
PO-7	Life-Long Learning: Acquire the ability to engage in independent and life-long learning in the context of socio-technological changes

SEMESTER-WISE SKELETON OF THE TWO YEARS P.G. PROGRAMME IN COLLEGES UNDER SAMBALPUR UNIVERSITY

MA in Journalism and Mass Communication			
	From the Dept		
Semester	credit		credit
First	20	Entrepreneurship Development	2
Second	20	Inter Dept. course (IDC) or Open Elective	3
Third	20	Env. Studies & Disaster Management	2
Fourth (including Project of 4 credit)	20		
Total	80	MOOCs one paper (in 2nd or 3rd Sem)	3
Total credit for2 year course	=	90 credits	
Furthermore, the following non-credit course will be taken by the student			
1. Yuva Sanskar	2. N.C.C./ N.S.S./Sports/ Performing Arts/Yoga (of which one has to be opted)		

1. In each Semester, the Department can offer either 5 papers of 4 credits(i.e.,5x4=20credits)
2. The results of 1st, 2nd and 3rd Semester will be published on the basis of 20 credits core course only. The results of fourth and final semester results will incorporate taking into consideration 80 credits core course offered by the Department and 10 credit courses comprising (i) Env. Studies & Disaster Management (2 credit), (ii) Inter Dept. Course (IDC) or Open elective (3 credit), (iii) Entrepreneurship Development (2 credit) (IV) MOOCs (3 credit).
3. The students will take one MOOCs Course according to his/her preference in consultation with

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HOD and submit the document in support of undertaking the MOOCs course to the respective Department.

4. Students will apply in prescribed form their preference for NCC/NSS/Sports/ Performing Art/Yoga at the beginning of the session. The consolidated list of the same will be forwarded by the HODs to the office of the Chairman, PG Council. Depending upon the number of application, maximum capacity and preference, the students will be allotted one of the above non-credit courses.

5. Distribution of Marks in % for the theory Papers

Theory Papers offered by the own Department		Theory Paper offered by other Department	
End Term	Mid Term	End Term	Mid Term
80%	20%	60%	40%
Mid- term will consist of (10% for 2 class tests, 5% for assignment, 5% for case study in case of mid-term of 20%; 20% for 2 class tests, 10% for assignment, 10% for case study in case of mid-term of 40%)			

6. Project work of 4th Semester will be assigned to the students (jointly or individually) at the beginning of the III Semester and will be completed in the IV semester. The distribution of the work/marks will be as follows:

Marks Distribution of the Project Paper
Project Work Report- (50 Marks) + Viva- (30 Marks)+ Presentation (20 Marks)

7. **Question Pattern and Mark Distribution of the Theory Paper**

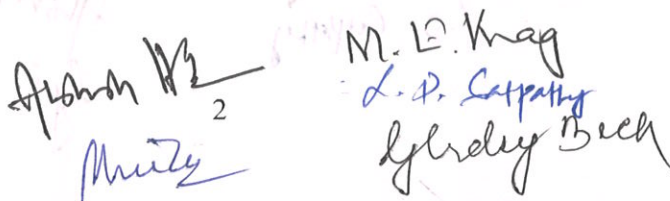| Part No.	Total No. of Questions	No. of question to be answered	Question Type	Marks Per Question	Total Marks
1	12	12	Fill in the Blanks/ One Word/ One Sentence answer	01	12
2	10	08	Answer should be within 2 to 3 sentence	02	16
3	10	08	Answer should be within 75 words to 100 words	03	24
4	08	04	Answer should be within 500 words	28	12
Total Marks					80

8. **Pass percentage**
a) To pass the examination each candidate has to obtain 30% Grade Point 4.0 (GP 4.0) including the IDC and the AECC papers.
b) To pass the semester each candidate has to secure at least Grade Point Average (GPA) of 4.5 (40%)
c) To pass the semester examination a candidate has to appear the mid semester along with the end semester, if a candidate fails to attend the mid semester then that candidate is considered to have failed the said paper and the semester.
d) The candidate has to provide a certificate of attending and passing the MOOC courses. The pass percentage of the MOOC will be calculated as per their programme guidelines.

9. **Improvement:**
A candidate having failed in any paper/s, can appear simultaneously appear in repeat examination in those failed paper/s and improvement examination in other papers of his/her choice. However, the total number of papers in which a student can opt for improvement will remain four papers (i.e. same as per the existing guidelines of Sambalpur University) within 8 (eight) semesters from the date of first registration.

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COURSE STRUCTURE

SEMESTAR	PAPER	COURSE TITLE	CREDITS	MARKS Mid Sem.	End Sem.	Total
I	AECC-1	Entrepreneurship Development	02	20+20 (A)	60	100
	P-101	Micro Economic Theory-I	04	20	80	100
	P-102	Macro Economic Theory-I	04	20	80	100
	P-103	Statistical Methods	04	20	80	100
	P-104	Environmental Economics	04	20	80	100
	P-105	International Trade & Finance-I	02	20	80	100
	Total Credits E U S & disaster Management		**22**	**Total Marks in 1st sem. 600**		
II	AECC-II ~~IDC~~ Inter-disciplinary subject		03	20+20 (A)	60	100
	P-201	Micro Economic Theory-II	04	20	80	100
	P-202	Macro Economic Theory-II	04	20	80	100
	P-203	Quantitative Methods	04	20	80	100
	P-204	Indian Economy	04	20	80	100
	P-205	International Trade & Finance-II	04	20	80	100
	Total Credits		~~23~~ 22	**Total Marks in 2nd sem. 600**		
III	~~AECC-II~~ IDc	~~Environmental Studies & Disaster Management~~ Inter dis Sub	~~03~~	20+20 (A)	60	100
	P-301	Public Economics-I	04	20	80	100
	P-302	Growth & Development Theory-I	04	20	80	100
	P-303	Mathematical Economics-I	04	20	80	100
	P-304	Elementary Econometrics	04	20	80	100
	P-305	Financial Institutions & Market	04	20	80	100
	P-306	MOOC's one paper from Swayam/ others	03	---	---	---
	Total Credits		~~25~~ 26	**Total Marks in 3rd sem. 600**		
IV	P-401	Public Economics-II	04	20	80	100
	P-402	Growth & Development Theory-II	04	20	80	100
	P-403	Mathematical Economics-II	04	20	80	100
	P-404	Advanced Econometrics	04	20	80	100
	P-405	Dissertation, Presentation &Viva Voce	04	---	100	100
	Total Credits		**20**	**Total Marks in 4th sem. 500**		
Total MA J&MC Course Credits			**90 Credits**	**Grand Total Marks 2300**		

One Non-credit course will be taken by the students during the 2 year of study
NCC/NSS/Sports/Yoga/Gardening/ Socially Useful Productive Work (SUPW)

M.R - IDC: GENERAL ECONOMICS ✓

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P-101:   MICROECONOMIC THEORY-I (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1 Remember and understand the basic concepts/Principles of Micro Economics-I

CO-2 Analyse the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: This paper analyses the economic behaviour of individuals, firms and markets. It is mainly concerned with the objective of equipping the students in a rigorous and comprehensive manner with the various aspects of consumer behaviour and demand analysis, production theory and behaviour of costs, the theory of traditional markets and equilibrium of firm in modern non-profit maximizing framework.

Expected outcome: Students will know the application of Economic Theory in to practice.

1. Theories of demand

- Utility, indifference curve
- Income and Substitution effects: Slutsky theorem, compensated demand curve and their applications
- Revealed Preference Theory: Revision of demand theory by Hicks: Characteristics of goods approach, Consumers' choice involving risk.

2. Theory of Production and Cost

- Production function- short period and long period
- law of variable proportions and returns to scale, Isoquants, Least Cost combination of inputs : Returns to factors ; Economies of scale
- Elasticity of substitution
- Euler's Theorem
- Traditional and modern theories of Costs- Empirical evidence, Derivation of Cost functions from production functions.

3. Price and Output Determination-I

- Perfect competition- short run and long run equilibrium of the firm and industry, price and output determination, supply curve
- Monopoly- short run and long run equilibrium, price determination, welfare aspects, monopoly control and regulation
- Monopolistic competition- general and Chamberlin approaches to equilibrium, equilibrium of the firm and the group with product differentiation and selling costs, excess capacity under monopolistic and imperfect competition, criticism of monopolistic competition.

4. Price and Output Determination-II

- Oligopoly- Non –collusive (Cournot, Bertrand, Edgeworth, Chamberlin, Kinked demand curve and Stackelberg's solution)
- collusive (Cartels and mergers, Price leadership and basing point price system) models
- Price and output determination under monopsony and bilateral monopoly.

Reading List:

1. Kreps, David M. (1990) A Course in Microeconomic Theory, Princeton University Press, Princeton.
2. Koutsoyiannis, A (1979), Modern Micro Economics, Mac Millan Press, London
3. Layard, P.R.G. and A.W. Walters (1978), Mircoeconomic Theory, Mc Graw Hill, New York.
4. Varian, H (2000) Microeconomic Analysis, W.W. Norton, New York.
5. Baumol, W.J. (1982) Economic theory and Operation analysis, Prentice Hall of India, New Delhi.
6. Gree, H.A.G (1971) Consumer Theory, Penguin, Harmondsworth.
7. Hirshleifer J. and A. Glazer, (1997) Price Theory and Applications, Prentice Hall of India, New Delhi.
8. Da Costa, G.C (1980) Production, Prices and Distribution, Tata Mc Graw Hill, New Delhi.

P-102: MACRO ECONOMIC THEORY-I (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of Macro Economics-I

CO-2   Analyse the Various Concepts to understand them through case studies

CO-3   Apply the knowledge in understanding practical problems

CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *Macroeconomics analyses and establishes the functional relationship among the large aggregates. This paper is designed to make the students aware of the basic theoretical framework underlying in the field of macroeconomics. It also gives emphasis on the impact of different macroeconomic policies on the economy.*

Expected outcome: *After completing this course the students will be able to know the basic theoretical framework of the aggregate economy. As emphasis has been given in the theories relating to the supply of money, demand for money, inflation, business cycle, neo- classical and Keynesian synthesis, role of fiscal policy and monetary policy; the students can analyse and relate these theories to the real world situation*

1. **NATIONAL INCOME AND ACCOUNTS CONSUMPTION FUNCTION**
   - Circular flow of income in two, three and four sector economy
   - Different forms of national income accounting- social accounting, input output accounting, flow of funds accounting and balance of payments accounting, Green Accounting.
   - Keynes's psychological law of consumption- implications of the law
   - Short run and long run consumption function, Empirical evidence on consumption function
   - Income-consumption relationship- absolute income, relative income, life cycle and permanent income hypotheses

2. **SUPPLY OF MONEY**
   - Financial intermediation- a mechanistic model of bank deposit determination
   - A behavioural model of money supply determination, a demand determined money supply process
   - RBI approach to money supply; High powered money and money multiplier; control of money supply

3. **NEO-CLASSICAL AND KEYNESIAN SYNTHESIS**
   - One sector Neo-classical and Keynesian models
   - The IS-LM models
   - Extension of IS-LM model with Government sector
   - Relative effectiveness of monetary and fiscal policies

4. **EXTENSION OF IS-LM MODELS**
   - Extension of IS-LM models with labour market and flexible prices
   - The three sector Macro Model: Neo-classical and Keynesian
   - Policy implications of the neo-classical and Keynesian synthesis

Reading List:

1. Branson W.A. (1989), Macroeconomic Theory and Policy, Harper and Row, New York.
2. Dornbusch, R and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc. New York.
3. Hall, R.E and J.B Taylor (1986), Macroeconomics, W.W. Norton, New York.
4. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
5. Levacic, R. and Rebmann, A. (1982), Macro Economics- An introduction to Keynesian –Neo-classical controversies, Macmillan, London.
6. Mankiw, N. G. (2010), Macroeconomics, Worth Publishers, 7th edition.
7. Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd. New York.
8. Shapiro E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.

P-103   STATISTICAL METHODS (Marks: - MS-20/END SEM-80)

Normal Calculator is allowed

Course Outcomes

- **CO-1**   Remember and understand the basic concepts/Principles of Statistical Method-I
- **CO-2**   Analyse the Various Concepts to understand them through case studies
- **CO-3**   Apply the knowledge in understanding practical problems
- **CO-4**   Execute/create the Project or field assignment as per the knowledge gained in the course

*Objective: The objective of the paper "**STATISTICAL METHODS**" is to teach the students about various types of secondary and primary data related to economic problems and enable the students for data analysis through computer software.*

Expected outcome: After the completion of the paper, the students are expected to know applications of statistics in economics and use of statistics through computer.

1. **AN INTRODUCTION TO STATISTICAL METHOD:**
   - Measures of Central tendency,
   - Measures of dispersion,
   - Skewness, Moments and Kurtosis.
   - Index Numbers

2. **CORRELATION AND REGRESSION ANALYSIS**
   - Meaning, assumptions and limitations of simple correlation and regression analysis
   - Spearman's rank correlation coefficients and their properties
   - Method of least squares and the Gauss Markov Theorem; estimated variance in two variable linear model
   - partial and multiple correlation and regression

2. **THEORY OF PROBABILITY**
   - Classical and empirical definitions of probability; Laws of addition and multiplication; Conditional probability and concept of interdependence
   - Mathematical Expectation

3. **THEORETICAL DISTRIBUTION, THEORY OF ESTIMATION AND TEST OF HYPOTHESES**
   - Properties of Binomial, Poisson, and Normal distributions
   - Concept of an estimator and its sampling distribution
   - Desirable properties of an estimator
   - Formulation of statistical hypotheses- Null and Alternative
   - Type I and Type II error, Goodness of fit; Confidence intervals and levels of significance
   - Hypothesis testing based on Z, t, Chi-square, F

Reading List:

1. Chiang A.C (1986) Fundamental methods of Mathematical Economics, Mc Graw Hill, New York.
2. Allen, R.G.D (1974) Mathematical Analysis for Economists, Macmillan Press and ELBS London.
3. Yamane, Taro (1975) Mathematics for Economists, Prentice Hall of India, New Delhi.
4. Handry A.T (1999) Operations Research, Prentice Hall of India, New Delhi
5. Baumol, W.J (1984) Economic Theory and Operational Analysis, Englewood Cliffs, New Jersey.
6. Monga, G.S (1972) Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi.

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P-104 ENVIRONMENTAL ECONOMICS (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of Environmental Economics

CO-2   Analyse the Various Concepts to understand them through case studies

CO-3   Apply the knowledge in understanding practical problems

CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

Objectives: *The objective of this course is to acquaint the students of economics the various environmental issues and to provide some insights into the application of economic theory in the design and implementation of public policy related to the management of environment.*

Expected outcomes: *The students will learn the valuation of environment, the importance of institutions for the management of environment, and issues relating to sustainable development.*

1. **An introduction to Environmental Economics**
   - Concepts: Natural resources (renewable and non-renewable), Pollutants (biodegradable and non-biodegradable), Threshold level value of pollution, Environmental Economics and Natural Resource Economics.
   - Environment Economy inter-linkage,
   - Economics of non-renewable resources and Hotelling model,
   - Carrying capacity of renewable resource, Efficiency and sustainability issues in the management of renewable resources.
   - Common pool resources and their management

2. **Market Failure and Solutions**
   - Environmental quality as a public good, Pollution as a public bad
   - The problems of environmental externalities (local, trans-boundary and global)
   - Policies for Optimal Pollution: (i) Pigovian measures, (ii) Coase' bargaining solution (iii) Tradable Pollution Rights, (iv) Command and Control measures (v) International treaties and Conventions

3. **Valuation of Environment**
   - Meaning and the need for environmental valuation, Direct and Indirect method of valuation, Willingness to pay and willingness to accept,
   - Revealed Preference method: Hedonic Price theory, Averting expenditure method, and Travel cost method
   - Contingent valuation method.

4. **Sustainable Development**
   - Limits to growth hypothesis
   - Irreversibility and uncertainty issues relating to environment
   - Environment and development trade-off and the concept of sustainable development
   - Sustainability Rules and Indicators of sustainable development,
   - Integrated environmental and economic accounting.

Reading List:
1. Kolstad, C. D (1999) *Environmental economics*, Oxford University Press, New Delhi
2. Sankar, U (Ed.) (2001) *Environmental Economics*, Oxford University Press, New Delhi
3. Hanley N (1997) *Environmental Economics in Theory and Practice*, Macmillan, London.
4. Tietenberg T. (1994) *Environmental Economics & Policy*, Harper Collins, New York.
5. Bromley D W, (ed.) (1995) *Handbook of Environmental Economics*, Blackwell, London
6. Bhattacharya, R.N. (2001) Environmental Economics an Indian Perspective, Oxford University Press, New Delhi
7. Hussen, AM (1999) Principles of Environmental Economics, Routledge, London

P-105 INTERNATIONAL TRADE & FINANCE-I (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1	Remember and understand the basic concepts/Principles of International Trade & Finance-I
CO-2	Analyse the Various Concepts to understand them through case studies
CO-3	Apply the knowledge in understanding practical problems
CO-4	Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *This course has become relatively more relevant from the policy point of view under the present waves of globalization and liberalization both in the North and in the South. It aims to provide a deep understanding about the broad principles and theories, which tend to govern the free flow of trade in goods, services and capital at the global level.*

Expected outcome: *The students will not only be acquainted with the trade theories and policies but also will be able to analyse the impact of the relevant policies on the economy.*

1. **Theories of International Trade**
   - Classical Theories of trade, Opportunity costs and trade theories
   - Empirical testing of theory of comparative cost.
   - Heckscher-Ohlin theory, Leontieff's paradox
   - Theorem of factor price equalization Gains from trade and their distribution.

2. **Trade Theories with Economies of Scale and Imperfect Competition**
   - Imitation gap theory, Technological gap and Product cycle theory.
   - Economies of scale and International trade
   - Linder –Kravis model
   - Product differentiation and intra-industry trade Krugman model and Lancaster model.

3. **Theory of interventions and Welfare implications:**
   - Trade protection measures- Tariffs, Quotas and voluntary export restraints
   - Tariff and rewards to the factors of production in the short, medium and long run
   - Stolper-Samuelson theorem on welfare implications of tariff,
   - Metzler's paradox, nominal, effective and optimum tariff
   - The political economy of non-tariff barriers and their implications.

4. **The Theory of Regional Blocs**
   - Forms of economic cooperation
   - Reforms for the emergence of trading blocs at the global level
   - Static and dynamic effects of a customs union, EU, NAFTA
   - Rationale and economic progress of SAARC/SAPTA and ASEAN regions.

Reading List:
1. Salvatore, D (2014) *International Economics: Trade and Finance*, Wiley Students' Edition, 11th Edition.
2. Soderstein, Bo. And G. Reed,(1994) *International Economics*, The Palgrave Macmillan, London, 3rd (revised) edition.
3. Cherunilam, Francis (2017), Mc Graw Hill, Education
4. Carbough, R.J. (1999) *International Economics*, International Thomson Publishing, New York.
5. Chacoliades, M. (1990) *International Trade : Theory and Policy*, Mc Graw Hill, Kogakusha, Japan
6. Acharya, Rajat (2013) International *Economics An Introduction to Theory and Policy*,Oxford University Press, New Delhi

P-201 MICROECONOMIC THEORY-II (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of Micro Economic Theory-II

CO-2   Analyse the Various Concepts to understand them through case studies

CO-3   Apply the knowledge in understanding practical problems

CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *This paper is mainly concerned with the objective of equipping the students in a rigorous and comprehensive manner with the various aspects of production theory and behaviour of costs, the theory of traditional markets and equilibrium of firm in modern non-profit maximizing framework. The paper also deals with the micro and macro theories of distribution, welfare economics, general equilibrium in closed and open systems and analysis of economic behaviour under uncertainty.*

Expected outcome: *Students will know the application of Economic Theory in to practice.*

1   **Alternative Theories of the Firm I**
    - Critical evaluation of marginal analysis
    - Baumol's sales revenue maximization model
    - Williamson's model of managerial discretion,
    - Full cost pricing rule.

2   **Alternative Theories of the Firm II**
    - Marris model of managerial enterprises
    - Bain's limit pricing theory and its recent developments including Sylos-Labinis model
    - Behavioural model of the firm ; game theoretic models.

3   **Distribution**
    - Neo-classical approach- Marginal productivity theory
    - Product exhaustion theorem
    - Theory of distribution in imperfect product and factor markets
    - determination of rent, wages, interest and profit, Ricradian, Marxian, Kalecki and Kaldor's.

4   **Welfare Economics and Economics of information**
    - Pigovian welfare economics, Pareto optimal conditions, Value judgment; Social welfare function.
    - Theory of Second Best and General Equilibrium- Compensation principle; Inability to obtain optimum welfare- Imperfections, market failure, decreasing costs
    - Walrasian excess demand. The Economics of information.

Reading List:

1. Kreps, David M. (1990) A Course in Microeconomic Theory, Princeton University Press, Princeton.
2. Koutsoyiannis, A (1979), Modern Micro Economics, Mac Millan Press, London
3. Layard, P.R.G. and A.W. Walters (1978), Mircoeconomic Theory, Mc Graw Hill, New York.
4. Varian, H (2000) Microeconomic Analysis, W.W. Norton, New York.
5. Baumol, W.J. (1982) Economic theory and Operation analysis, Prentice Hall of India, New Delhi.
6. Gree, H.A.G (1971) Consumer Theory, Penguin, Harmondsworth.
7. Hirshleifer J. and A. Glazer, (1997) Price Theory and Applications, Prentice Hall of India, New Delhi.
8. Da Costa, G.C (1980) Production, Prices and Distribution, Tata Mc Graw Hill, New Delhi.

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P-202 MACROECONOMIC THEORY-II (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1	Remember and understand the basic concepts/Principles of Macro Economic Theory-II
CO-2	Analyse the Various Concepts to understand them through case studies
CO-3	Apply the knowledge in understanding practical problems
CO-4	Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: Macroeconomics analyses and establishes the functional relationship among the large aggregates. This paper is designed to make the students aware of the basic theoretical framework underlying in the field of macroeconomics. It also gives emphasis on the impact of different macroeconomic policies on the economy.

Expected outcome: After completing this course the students will be able to know the basic theoretical framework of the aggregate economy. As emphasis has been given in the theories relating to the supply of money, demand for money, inflation, business cycle, neo- classical and Keynesian synthesis, role of fiscal policy and monetary policy; the students can analyse and relate these theories to the real world situation

1 POST KEYNESIAN APPROACHES TO DEMAND FOR MONEY
- Regressive expectation model
- Portfolio balance approach
- Patinkin and the real balance effect
- Friedman and the modern quantity theory
- Crisis in Keynesian economics and the revival of monetarism.

2 MACROECONOMICS IN AN OPEN ECONOMY
- Income determination in an open economy
- Internal and external equilibrium-The Mundell-Fleming Keynesian model
- Foreign trade multiplier

3 THEORY OF INFLATION
- Keynesian and Monetarist approaches to inflation
- Structuralists' theory of inflation
- Phillips curve analysis- Short run and long run Phillips curve
- Samuelson and Solow- the Natural rate of unemployment hypothesis
- Tobin's modified Phillip's curve
- Adaptive expectations and rational expectations

4 BUSINESS CYCLES AND THE NEW CLASSICAL CRITIQUE OF KEYNESIAN MICRO FOUNDATIONS
- Meaning and features of Business Cycle
- Theories of Business cycle: Schumpeter, Kaldor, Samuelson and Hicks, Goodwin
- Control of business cycles- relative efficiency of monetary and fiscal policies
- The new classical approach
- Policy implications of new classical approach
- New Keynesian Counter critics

Reading List:
1. Branson W.A. (1989), Macroeconomic Theory and Policy, Harper and Row, New York.
2. Dornbusch, R and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc. New York.
3. Hall, R.E and J.B Taylor (1986), Macroeconomics, W.W. Norton, New York.
4. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
5. Levacic, R. and Rebmann, A. (1982), Macro Economics- An introduction to Keynesian –Neo-classical controversies, Macmillan, London.
6. Mankiw, N. G. (2010), Macroeconomics, Worth Publishers, 7th edition.
7. Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd. New York.
8. Shapiro E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.

P-203 QUANTITATIVE METHODS (Marks: - MS-20/END SEM-80)

Objective: *The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis which are commonly applied to understand and analyse economic concepts. Economics being an empirical science, computers have emerged as the pivotal instruments of economic analysis, research and forecasting.*
Expected outcome: *This paper can develop the mathematical, statistical and computer skills of the students which they can apply to economics for better understanding of the subject matter.*

Course Outcomes

CO-1	Remember and understand the basic concepts/Principles of quantitative methods for Economics
CO-2	Analyse the Various Concepts to understand them through case studies
CO-3	Apply the knowledge in understanding practical problems
CO-4	Execute/create the Project or field assignment as per the knowledge gained in the course

1. CALCULUS
- Concepts of function, Limit and Continuity
- Differentiation: rules of differentiation
- Functions of several variables: partial derivatives, differentials, total differentials, second and higher order differentials, total derivative, implicit functions, Euler's theorem

1. MAXIMA AND MINIMA OF FUNCTIONS, CONCEPT OF INTEGRATION
- Maxima and minima in single and multivariable functions
- Simple rules of integration.
- Application of derivatives and integration in Economics

2. DIFFERENCE EQUATIONS, DIFFERENTIAL EQUATIONS
- Solution of non-linear differential equation and linear differential equation
- Solution of first order and second order difference equations
- Economic applications of Difference and Differential equations

3. MATRIX ALGEBRA
- Concept of Matrix- their types, simple operations on matrices
- Determinants and their basic properties
- Solution of Simultaneous equations through Crammers rule
- Matrix inversion and rank of a matrix, Concept of vector- its properties; Matrices and vectors, Concept of Quadratic forms- Eigen roots and Eigen vectors

Reading List:

1. Chiang A.C. (1986), Fundamental methods of Mathematical Economics, McGraw Hill, New York.
2. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press and ELBS London.
3. Yamane, Taro (1975), Mathematics for Economists, Prentice Hall of India, New Delhi.
4. K. Sydsaeter and P. Hammond (2002), *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi.

P-204   INDIAN ECONOMY (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of **Indian Economy**

CO-2   Analyse the Various Concepts to understand them through case studies

CO-3   Apply the knowledge in understanding practical problems

CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

The objective of the paper "Indian Economy" is to teach the students about different economic issues such as agriculture, industry, privitisation and parallel economy etc empirically.

Expected outcome: After completions of the course, the students are expected to important economic issues of Indian economy.

1. **Development and Planning –**
    *   Approaches to economic development
    *   Goal of self-reliance based on import substitution and protection,
    *   The post-1991 globalisation strategies based on stabilization and structural adjustment packages: fiscal reforms, financial sector reforms and trade reforms,
    *   NITI Ayog: role & functions.

2. **Poverty, Inequality and Unemployment:**
    *   Estimates of poverty measures for India: appraisal of Government measures, Global Hunger Index
    *   Estimates of inequality, regional imbalances and regional disparity in India
    *   Employment, unemployment and underemployment, industrial relations and labour welfare— strategies for employment generation—Urban labour market and informal sector employment.

3. **Sectoral Growth:**
    *   Agriculture- Economic Liberalization and Indian Agriculture.
    *   Strategy of industrial development— Industrial Policy Reform; Reservation Policy relating to small scale industries. Competition policy, Sources of industrial finances. Bank, share market, insurance companies, pension funds, non-banking sources and foreign direct investment, role of foreign capital for direct investment and portfolio investment, Public sector reform, privatization and disinvestment.
    *   Service sector- Indian experience of Services-led growth – Services growth- Output, Employment and Exports – Understanding 'Services Revolution' in India.

4. **Current Economic Issues in India:**
    *   Current issues as highlighted in latest Economic Survey,
    *   Union Budget, other contemporary issues on Indian economy having important ramifications,
    *   Infrastructure Development in India: energy, transport, health, education

Reading List:

1. Ahluwalia I.J. and I.M.D Littles (Eds.) (1999) India's Economic Reforms and Development , Oxford University Press, New Delhi
2. Bardhan, P.K. (1999) The Political Economy of Development in Inda, Oxford University Press, New Delhi.
3. Bawa R.S and P.S. Raikhy (Ed.) (1997) Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
4. Chakravarty, S. (1987) Development Planning: The Indian Experience, Oxford University Press, New Delhi.
5. Dantwala, M.L. (1996) Dilemmas of Growth : The Indian Experinece, Sage Publications, New Delhi.
6. Jalan, A.K. (1986) Economic Planning in Inda, Ashish Publishing House, New Delhi
7. Jalan, B. (1992) India's Economic Policy- Preparing for the Twenty First Century, Viking New Delhi.
8. Sen R.K. and B. Chatterjee (2001) Indian Economy: Agenda for 21st Century, Deep and Deep Publications, New Delhi.
9. Byres T.J. (Ed.) (1997) The State, Development Planning and Liberalization in India, Oxford University Press, New delhi.
10. Dhameeja, N. and K.S. sastry (1998) Privatisation: Theory and Practice, A.H. Wheeler, New Delhi
11. Recent Economic Survey.
12. Gupta, S.P (1998) Post-Reform India: Emerging trends, Allied Publishers, New Delhi.
13. Srinivasan, T.N. (Ed) (2000) Eight Lectures on India's Economic Reforms, Oxford University Press, Oxford.

P-205 INTERNATIONAL TRADE & FINANCE-II (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of International Trade & Finance-II

CO-2   Analyse the Various Concepts to understand them through case studies

CO-3   Apply the knowledge in understanding practical problems

CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *This course has become relatively more relevant from the policy point of view under the present waves of globalization and liberalization both in the North and in the South. It aims to provide a deep understanding about the foreign exchange market, Balance of Payments, regionalism and multilateralism in trade and finance and trade policies of India.*

Expected outcome: *The students will not only be acquainted with the concepts, theories and policy interventions relating to exchange rate, BOP, regionalism but also will be able to analyse the impact of the relevant policies and external shocks on the economy.*

1. Foreign exchange Market

- Demand and supply of foreign exchange
- Marshall-Lerner Stability condition, Spot and forward rate, Fixed vs Flexible exchange rate
- Mint parity theory, Purchasing power parity Theory
- Monetary approach to balance of payments and exchange rate
- Asset market model and exchange rate, exchange rate over shooting.

2. Balance of payments

- Meaning and components of balance of payments ; Equilibrium and dis-equilibrium in the balance of payments ; The process of adjustment in BOP under systems of gold standard
- Devaluation and its effectiveness- Elasticity and Absorption approach
- Expenditure-reducing and expenditure switching policies and direct controls of adjustment; policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes
- Foreign trade multiplier with and without foreign repercussions.

3. International Monetary Systems

- Gold Standard; Rules and operation, failure of the gold standard
- The Bretton Woods System; Evolution and collapse of the Bretton Woods System the Rise and fall of Bretton-woods system
- International reserves; meaning, need, determinants and adequacy and international reserves;
- International crises; East Asian crisis, Global financial crisis, Euro zone crisis,
- Current Operation of IMF, International trade and GATT/WTO and UNCTAD.

4. Trade policies in India

- Trade problems and trade policies in India during the last five decade; Recent changes in the direction and composition of trade and their implications; rationale and impact of trade reforms since 1991 on balance of payments
- Problems of India's international debt
- Working and regulations of MNC in India
- Instruments of export promotion and recent import and export policies and the agenda for future.

Reading List:

1. Salvatore, D (2014) *International Economics: Trade and Finance*, Wiley Students' Edition, 11th Edition.
2. Soderstein, Bo. And G. Reed,(1994) *International Economics*, The Palgrave Macmillan, London, 3rd (revised) edition.
3. Cherunilam, Francis (2017), Mc Graw Hill, Education
4. Carbough, R.J. (1999) *International Econ*omics, International Thomson Publishing, New York.
5. Chacoliades, M. (1990) *International Trade : Theory and* Policy, Mc Graw Hill, Kogakusha, Japan
6. Acharya, Rajat (2013) International *Economics An Introduction to Theory and Policy*,Oxford University Press, New Delhi

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P. G. Department of Economics

Sambalpur University

Courses of Studies for the Inter-Departmental Course (IDC)

2022-2024

GENERAL ECONOMICS

- **Economic growth and development** – basic concept and definition of economy and economics, development versus growth, determinant of growth and development, concepts such as HPI/MPI, HDI, PQLI, GEM, GDI/GII, Poverty – definitions, causes, measurement of poverty, status of poverty, eradication programmes.

- **Macro-economics-** Circular flow of income in two, three and four sector economy; Different forms of national income accounting- social accounting, flow of funds accounting and balance of payments accounting; RBI approach to money supply; High powered money and money multiplier.

- **Current Economic Issues in India:** Sectors of Indian economy: Agriculture, Industry and Service, Infrastructure Development in India: energy, transport, Social Sector Development in India: health, education, Direct and Indirect taxes.

Reading List:

1. Ahluwalia I.J. and I.M.D Littles (Eds.) (1999) India's Economic Reforms and Development , Oxford University Press, New Delhi
2. Bardhan, P.K. (1999) The Political Economy of Development in Inda, Oxford University Press, New Delhi.
3. Bawa R.S and P.S. Raikhy (Ed.) (1997) Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
4. Chakravarty, S. (1987) Development Planning: The Indian Experience, Oxford University Press, New Delhi.
5. Gupta, S.P (1998) Post-Reform India: Emerging trends, Allied Publishers, New Delhi.
6. Srinivasan, T.N. (Ed) (2000) Eight Lectures on India's Economic Reforms, Oxford University Press, Oxford.
7. Shapiro E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.

P-301 PUBLIC ECONOMICS-I (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of Public Economics-I
CO-2   Analyse the Various Concepts to understand them through case studies
CO-3   Apply the knowledge in understanding practical problems
CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: Role and functions of the Government in an economy have been changing with the passage of time. This paper covers the theoretical aspects of Public Economics and Public Finance.
Expected outcome: Students will know the application of Public Economics and its application to facts.

1. **Functions of Government**
   - Role and Functions of Govt.: Allocation, Distribution and Stabilisation
   - Functions of Govt. Private goods, Public goods, Club good.
   - Externalities and Merit Goods. Allocation of resources, provision of public goods.

2. **Public expenditure**
   - Wagner's law of increasing state activities ; Wiseman-Peacock hypothesis
   - Voluntary Exchange models, Pure theory of public expenditure
   - Reforms in expenditure budgeting : Programme budgeting and zero base budgeting.

3. **Taxation**
   - Benefit and ability to pay approaches, Theory of optimal taxation
   - Theory of incidence ; Alternative concepts of incidence- Allocative and equity aspects of individual taxes
   - Excess burden of taxes, Trade-off between equity and efficiency
   - Theory of measurement of dead weight losses ; The problem of double taxation.

4. **Public choice and Budget Determination**
   - Voting systems: majority rule, plurality rule, point voting,
   - Median Voter model, Arrow Impossibility theorem. Down's Theory of Democracy.
   - Politico-eco-bureaucracy; rent seeking and directly unproductive profit seeking (DUP) activities.

Reading List:

1. Atkinson, A.B. and J.E. Siglitz (1980) Lectures on Public Economics, Tata McGraw Hill, New York
2. Auerbach, A.J. and M. Feldstern (Eds) (1985) Handbook of Public Economics, Vol.I, North Holland, Amsterdam.
3. Jha, R (1998) Modern Public Economics, Routledge, London
4. Musgrave, R.A. (1959) The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo
5. Shoup, C.S (1970) Public Finance, Aldine, Chicago
6. Peacock. A and G.K. Shaw (1976) The Economic Theory of Fiscal Policy, George Allen and Unwin, London.
7. American Economic Association (1955) Readings in Fiscal Policy, George Allen and Unwin, London.

P-302 GROWTH & DEVELOPMENT-I (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1 Remember and understand the basic concepts/Principles of Growth & Development-I

CO-2 Analyse the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *The study of economic development has gained importance because of sustained interest of the developing countries in uplifting their economic conditions by restructuring their economies to acquire greater diversity, efficiency and equity in consonance with their priorities. There have been many approaches to economic development and the objective of the paper is to make the students understand the various approaches to economic development and growth.*

Expected outcome: *Modules incorporated in this paper are devoted to the theories of growth and development, institutional aspects of development, role of international trade, investment criteria, social cost benefit analysis, relevance of planning in the context of development. After completing this course the students will be able to know the different aspects of economic development and can use these things in their future research as well as in qualifying the various national level tests.*

1. Theories of development:

- Classical theory of development, contributions of Adam Smith, Ricardo, Malthus, Karl Marx
- Capitalist crisis- Schumpeter and capitalistic development; Innovation- role of credit, profit and degeneration of capitalism, Structural analysis of development.
- Rostow's stages of Economic growth.

2. Approaches to development:

- Partial theories of growth and development, vicious circle of poverty, circular causation, unlimited supply of labour,
- Big push, balanced growth, unbalanced growth
- Critical minimum effort thesis, low income equilibrium trap.

3. Economic Growth-I:

- Growth models- Harrod and Domar, instability of equilibrium
- Neo-classical growth models- Solow model,
- Technological progress- embodied and disembodies technical progress, Exogenous and endogenous technical progress,

4. Economic Growth-II:

- A-K Model of Growth
- Cambridge criticism of Neo-classical analysis of growth, The Capital controversy- general ideas,
- Kaldor's growth model,

Reading List:

1. H.G. Jones (1976), "An Introduction to Modern Theories of Economic Growth"
2. Charles I Jones (2013), "Introduction to Economic Growth"
3. Ghatak, S (1986) An Introduction to development Economics, Allen and Unwin, London
4. Higgins,B. (1959) Economic Development, WW Norton, New York.
5. Meier G.M.(1986) Leading Issues in Economic Development, Oxford University Press, New York
6. Basu, Kaushik (2000) Analytical Development Economics: The less developed Economy Revisited, Oxford University Press, India.
7. Ray Debraj (2000) Development Economics, Oxford University Press, India.
8. Chenery H and T.N. Srinivasan (Eds) (1989) Handbook of Development Economics, Vols. 1&2, Elsevier, Amsterdem.
9. Todaro, M.P (1996) Economic Development, Longman, London
10. Thirlwal, A.P (1999) Growth and Development, Macmillan, UK.
11. Hayami, Y. (1997) Development Economics, Oxford University Press, New York
12. Sen, A.K. (Ed) (1990) Growth Economics, Penguin, Harmondsworth

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P-303 MATHEMATICAL ECONOMICS-I (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1   Remember and understand the basic concepts/Principles of Mathematical Economics-I

CO-2   Analyse the Various Concepts to understand them through case studies

CO-3   Apply the knowledge in understanding practical problems

CO-4   Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: A student of economics can make much headway in understanding the subject with basic mathematical logic. Mathematical economics has been accordingly designed to include various mathematical techniques/ methods/ models related to the different parts of economic theory. This course is designed to equip students to understand the micro economic concepts and theories which use mathematical tools and techniques to refine the verbal logic.

Expected outcome: Students will know the integration of Mathematics and Economic Theory..

1. Theory of Consumer Behaviour

- Cardinal and ordinal utility maximization; Slutsky equation, compensated demand functions, income, substitution and price effects
- Concept of elasticities- generalizations to n variable case. Separate and additive utility functions; homogeneous and homothetic utility functions
- constant elasticity of substitution (CES) and transcendental logarithmic utility functions ; duality theorem
- consumers surplus ; Theory of revealed preference and index numbers ; Linear expenditure systems.

2. Theory of production

- Production function- homogeneous and non-homogeneous, Properties of production function; CES, VEX and trans-log production function.
- Simple derivation of short run and long run cost functions ; Modern approach to theory of costs; Cost function, constrained optimization of a producer ; Generalisation to n variable case ;
- Input demand functions ;
- Adding up theorem, Technical progress through production function.

3. Price determination in various markets

- Price determination in perfect competition,
- monopoly, monopolistic competition, duopoly,
- oligopoly, and monopsony
- Pricing of factors of production; Bilateral monopoly.

4. Market equilibrium

- Marshallian and Walrasian equilibrium conditions, lagged market equilibrium
- Multi-market equilibrium- general equilibrium
- Systems of Walras and Debreau ; Conditions of stability for equilibrium.

Reading List:

1. Allen RGD (1974) Mathematical Analysis for Economists, Macmillan Press and ELBS, London.
2. Chiang, A.C (1986), Fundamental Methods of Mathematical Economics, Mac Graw Hill, New York.
3. Henderson & Quandt, Micro Economic Theory, A mathematical approach, Mac Gaw Hill, New Delhi.
4. Allen, RHD, (1976) Mathematical Economics, Macmillan, London
5. Arrow K.J., and M. Intrilligator, (Eds) (1982), handbook of Mathematical Economics, Volumes, I, II, III, North Holland, Amsterdam.
6. Hadley, G (1962) Linear Programming, Addison Wesley Publishing Co., Massachusetts.

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P-304 ELEMETARY ECONOMETRICS (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1 Remember and understand the basic concepts/Principles of **Econometrics**

CO-2 Analyse the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *Econometrics is mainly concerned with the empirical verification of economic theory. It requires a reasonable understanding of economic relationships and relevant statistical methods. Thus, the econometric theory becomes a powerful tool for understanding of applied economic relationships and for meaningful research in economics. This paper is devoted to equip the students with basic as well as advanced theory of econometrics and relevant applications of the methods.*

Expected outcome: *The topics covered in the course include various problems faced in estimation of both single equations and simultaneous equations models. The course also covers various econometric methods applicable to different topics in economics and those needed for applied economic research. Students are expected to know the basic concepts and applications of econometrics, adding rigour to the understanding of economic problems*

1 BASIC ECONOMTERICS

- Nature, meaning and scope of econometrics
- Simple and general linear regression model- Assumptions, Estimation (through OLS approach) and properties of estimators
- Gauss Markov theorem
- Concepts and derivation of R2 and Adjusted R2

2 GENERALISED LEAST SQUARES (GLS)

- Generalised Least Square estimation (GLS)
- Functional Forms of Regression models: The log-linear model, Semi-log model, Reciprocal model and the logarithmic reciprocal model

3 PROBLEMS OF REGRESSION ANALYSIS

- Heteroscedasticity: nature, test, consequences and remedial steps of problems of heteroscedasticity
- Multicollinearity: problem, types, causes, consequences, detection and remedial measures
- Autocorrelation: problem, causes, AR scheme, consequences, detection and remedies

4 REGRESSIONS WITH QUALITATIVE INDEPENDENT VARIABLES AND DUMMY DEPENDENT VARIABLES

- Dummy variable technique
- Testing structural stability of regression models comparing to regressions,
- Interaction effects, seasonal analysis
- Piece-wise linear regression
- The LPM Model
- The Logit Model
- The Probit Model

Reading List:

1. Jhonston J. (1991), Econometric Methods , McGraw Hill Book Co. London
2. Asteriou Dimitrious, (2006), Applied Econometrics, Palgrave Macmillan, New York
3. Gujrati D.N. (1995), Basic Econometrics, (2nd edition) McGraw Hill, New Delhi
4. Kmenta, J. (1977), Elements of Econometrics, (reprint edition) University of Michigan Press, New York.
5. Koutsoyiannis A. (1977), Theory of Econometrics (2nd ed.) The Macmillan Press Ltd. London.
6. Madalla G.S. (1997), Econometrics, McGraw Hill, New York.
7. Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
8. Pindyck, Robert. S. and Daniel L. Rubinfeld,(1976), Econometric Models and Economic Forecasts, International Student edition, McGraw-Hill

P-305 FINANCIAL INSTITUTIONS & MARKETS (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1	Remember and understand the basic concepts/Principles of Financial Institutions and Market
CO-2	Analyse the Various Concepts to understand them through case studies
CO-3	Apply the knowledge in understanding practical problems
CO-4	Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *The present course is designed to acquaint the students the theory and practice of different financial institutions, financial assets, and markets. It is also aimed at to acquaint them with the Government policies and, the role of financial sector over time.*

Expected outcome: *After completing this course the students will be well conversant with the important concepts relating to finance, will understand and be able to analyse the interconnection between the monetary forces and real forces, their developmental role and limitations in shaping and influencing the monetary and related policies both at the national and international levels.*

1. Introduction to Financial system
- Meaning and structure of the financial system
- Important Concepts: Money and Finance; Money and near money; Equities and debt; Annuity and Perpetuity, Money market and capital market; Primary and secondary market; Primary and secondary securities.
- Financial system and Economic development, Returns in Financial market: Expected rate of return, required rate of return, current return and yield to maturity, Risks : Types; Portfolio risk; risk-return trade-off, Valuation of Securities, Indicators of financial development

2. Banks, and Non-bank Financial Intermediaries
- Role of commercial banks, Need for the regulation of the banking sector, efficiency of banks, NPA, Risk management in Banks
- Development banks- role and functions, Important Non-banking financial Institutions: Mutual Funds, Insurance Companies, Credit rating institutions, Merchant Banks, Venture Capital Fund

3. Financial Markets in India
- Money market: Call money market, Treasury bill market, Commercial bill market including commercial paper and certificate of deposits
- Bond Market: Bond features, Government security market and corporate bond market
- Stock Market in India: IPO, Stock Exchanges, Stock market indices, Derivative market: Types of derivatives, Pricing of Future, Options and Swaps, Foreign exchange market: Structure and type

4. Regulatory Financial Institutions
- Need for Financial Regulation: Maintaining Systemic Stability, Protecting the interest of the retail customers
- Sources of Financial instability: Credit market (Banking and Non-Banking Sector), Financial market, External Sector and Payment System; RBI's policy responses; RBI's Supervision and prudential measures for financial stability.
- SEBI- Objectives and roles in capital market development and regulation, IRDA- Objectives and Functions.

Reading List:
1. L. M. Bhole and J. Mahukud, *Financial Institutions and Markets,* Tata McGraw Hill, 5th edition, 2011.
2. Prasanna Chandra, *Financial Management, Theory and Practice,* Tata McGraw Hill, 6th edition, 2006.
3. John C., Hull, *Options, Futures and Other Derivatives*, Pearson Education, 6th edition, 2005.
4. Dominick Salvatore, *International Economics: Trade and Finance*, John Wiley International Student Edition, 10th edition, 2011
5. Edminister, R.O, *Financial Institutions, markets and Management,* Mc Graw Hill, New York.1986.
6. R.I Robonson, and D. Wrightman, *Financial Markets,* Mc Graw Hill, London.1981.
7. Speeches and Memorial Lectures from RBI websites

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P-401 PUBLIC ECONOMICS-II (Marks: - MS-20/END SEM-80)

Objective: *Role and functions of the Government in an economy have been changing with the passage of time. There are vast array of fiscal institutions — tax systems, expenditure programmes, budgetary procedures, stabilization instruments, debt issues, levels of government, etc., which raise a spectrum of issues arising from the operation of these institutions This paper combines a thorough understanding of fiscal institutions with a careful analysis of the issues which underline budgetary policies in general and Indian experience in particular.*

Expected outcome: *Students will know the application of Public Economics and its application to facts.*

Course Outcomes

CO-1 Remember and understand the basic concepts/Principles of **Public Economics-II**

CO-2 Analyse the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/create the Project or field assignment as per the knowledge gained in the course

1. **Public debt**
- Classical view of public debt ; Compensatory aspect of debt policy ; Burden of public debt ; Sources of public debt ; Debt through created money
- Public borrowings and price level ; Crowding out of private investment and activity ; Principles of debt management and repayment.

2. **Fiscal policy**
- Budgetary deficits (Primary deficit, Revenue deficit and fiscal deficit) and their implications,
- Fiscal multipliers (tax multiplier, expenditure multiplier, Budget multiplier), Fiscal policy for stabilization- automatic vs. discretionary stabilization, Fiscal policy for economic growth, and equity.

3. **Fiscal federalism**
- Principles of multi-unit finance; Vertical and horizontal imbalances ; Assignment of function and sources of revenue, Fiscal federalism in India: Constitutional provisions ; Finance commission and Planning commission/NITI Aayog
- Devolution of resources and grants: Resource transfer from union to states- Criteria for transfer of resources ; Centre- state financial relations in India
- Problems state's resources and indebtedness ; Transfer of resources from Union and States to local bodies.

4. **Indian Public Finances**
- Revenues of the Union, States and local bodies ; Major taxes in India, base of taxes
- Direct and Indirect taxes, taxation of agriculture, reforms in direct and indirect taxes, Goods and Service Tax (GST), Non-tax revenue of centre, States and local bodies,
- Reports of Finance commissions in India, analysis of central government budgets for the last two years.
- Trends in public expenditure and public debt of India.

Reading List:

1. Atkinson, A.B. and J.E. Siglitz (1980) Lectures on Public Economics, Tata McGraw Hill, New York
2. Auerbach, A.J. and M. Feldstern (Eds) (1985) Handbook of Public Economics, Vol.I, North Holland, Amsterdam.
3. Jha, R (1998) Modern Public Economics, Routledge, London
4. Musgrave, R.A. (1959) The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo
5. Shoup, C.S (1970) Public Finance, Aldine, Chicago
6. Peacock . A and G.K. shaw (1976) The Economic Theory of Fiscal Policy, George Allen and Unwin, London.
7. American Economic Association (1955) Readings in Fiscal Policy, George Allen and Unwin, London.

M. E. Khag
D. Sappatty   19

P-402 GROWTH & DEVELOPMENT-II (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1 Remember and understand the basic concepts/Principles of Growth & Development-II

CO-2 Analyse the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *The study of economic development has gained importance because of sustained interest of the developing countries in uplifting their economic conditions by restructuring their economies to acquire greater diversity, efficiency and equity in consonance with their priorities. There have been many approaches to economic development and the objective of the paper is to make the students understand the various approaches to economic development and growth.*

Expected outcome: *Modules incorporated in this paper are devoted to the theories of growth and development, institutional aspects of development, role of international trade, investment criteria, social cost benefit analysis, relevance of planning in the context of development. After completing this course the students will be able to know the different aspects of economic development and can use these things in their future research as well as in qualifying the various national level tests.*

1. Sectoral aspects of development-

- Role of agriculture in economic development; Efficiency and productivity in agriculture,
- New technology and sustainable agriculture;
- Globalisation and agricultural growth,
- Rationale and pattern of industrialization in developing countries;

2. Trade and economic development-

- International trade as engine of growth; Static and dynamic gains from trade, Prebisch, Singer and Myrdal thesis vs. Free trade
- Export-led growth, Dual gap analysis
- International Monetary Assistance and Development- FDI, FII, technology inflow, MNC activity in developing countries
- Burden of borrowing- IMF and World bank policies in developing countries.

3. Allocation of resources-

- Need for investment criteria in developing countries- present vs future, Alternative investment criteria
- Cost-benefit analysis; shadow prices, project evaluation and UNIDO guidelines
- The choice of techniques and appropriate technology and employment

4. Planning and development in India-

- Need for planning- democratic, decentralized and indicative planning
- Review of Indian plan models and planning: Mahalanobis Model

Reading List:

1. Ghatak, S (1986) An Introduction to development Economics, Allen and Unwin, London
2. Higgins,B. (1959) Economic Development, WW Norton, New York.
3. Meier G.M.(1986) Leading Issues in Economic Development, Oxford University Press, New York
4. Basu, Kaushik (2000) Analytical Development Economics: The less developed Economy Revisited, Oxford University Press, India.
5. Ray Debraj (2000) Development Economics, Oxford University Press, India.
6. Chenery H and T.N. Srinivasan (Eds) (1989) Handbook of Development Economics, Vols. 1&2, Elsevier, Amsterdem.
7. Todaro, M.P (1996) Economic Development, Longman, London
8. Thirlwal, A.P (1999) Growth and Development, Macmillan, UK.
9. Hayami, Y. (1997) Development Economics, Oxford University Press, New York
10. Sen, A.K. (Ed) (1990) Growth Economics, Penguin, Harmondsworth

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P-403 MATHEMATICAL ECONOMICS-II (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1	Remember and understand the basic concepts/Principles of Mathematical Economics-II
CO-2	Analyse the Various Concepts to understand them through case studies
CO-3	Apply the knowledge in understanding practical problems
CO-4	Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: *A student of economics can make much headway in understanding the subject with basic mathematical logic. Mathematical economics has been accordingly designed to include various mathematical techniques/ methods/ models related to the different parts of economic theory. The paper covers important aspects of macroeconomic theories Growth theories based on mathematics and operational research.*

Expected outcome: *Students will know the integration of Mathematics and Economic Theory.*

1. Macro-economic Models
- Determination of income and fluctuations in income- Classical and Keynes macro system
- Static and dynamic multiplier.
- Determinants of investment, accelerator
- Trade cycle model of development of Samuelson and Hicks.

2. Growth models
- Harrod problem; Neoclassical model of growth
- Solow and Meade growth models with technical progress
- Optimal growth, and golden rule of accumulation.

3. Game theory
- Concept of game- Two person zero-sum game, Payoff matrix, pure and mixed strategies. Maximin and Minimax solutions ;
- Saddle point solution ; Non-constant sum game ; Prisoners' dilemma ;
- Linear programming- Primal and dual problem ; Simplex method.

4. Linear Programming application and Input-output analysis
- Transport and storage problems and other applications of linear programming in economics
- Input-output analysis- Open and closed systems
- Hawkins-Simon conditions, Leontief's dynamic system
- Testing consistency of planning models.

Reading List:
1. Allen RGD (1974) Mathematical Analysis for Economists, Macmillan Press and ELBS, London.
2. Chiang, A.C (1986), Fundamental Methods of Mathematical Economics, Mac Graw Hill, New York.
3. Henderson & Quandt, Micro Economic Theory, A mathematical approach, Mac Gaw Hill, New Delhi.
4. Allen, RHD, (1976) Mathematical Economics, Macmillan, London
5. Arrow K.J., and M. Intrilligator, (Eds) (1982), handbook of Mathematical Economics, Volumes, I, II, III, North Holland, Amsterdam.
6. Hadley, G (1962) Linear Programming, Addison Wesley Publishing Co., Massachusetts.

P-404 ADVANCED ECONOMETRICS (Marks: - MS-20/END SEM-80)

Course Outcomes

CO-1	Remember and understand the basic concepts/Principles of ADVANCED Econometrics
CO-2	Analyse the Various Concepts to understand them through case studies
CO-3	Apply the knowledge in understanding practical problems
CO-4	Execute/create the Project or field assignment as per the knowledge gained in the course

Objective: Econometrics is mainly concerned with the empirical verification of economic theory. It requires a reasonable understanding of economic relationships and relevant statistical methods. Thus, the econometric theory becomes a powerful tool for understanding of applied economic relationships and for meaningful research in economics. This paper is devoted to equip the students with basic as well as advanced theory of econometrics and relevant applications of the methods.

Expected outcome: The topics covered in the course include various problems faced in estimation of both single equations and simultaneous equations models. The course also covers various econometric methods applicable to different topics in economics and those needed for applied economic research. Students are expected to know the basic concepts and applications of econometrics, adding rigour to the understanding of economic problems

1. SIMULTANEOUS EQUATION MODELS

- Structural form and reduced form
- The simultaneous equation bias and inconsistency of OLS estimators
- The identification problem ; Rules of identification- order and rank conditions
- Indirect least squares (ILS)
- Two stage least square (2SLS)
- Three stage least square (3SLS)
- Maximum likelihood estimation (ML)

2. TIME SERIES ANALYSIS

- Deterministic time series models and stochastic time series model
- Test of stationarity: Autocorrelation Function (ACF) and Correlogram
- The Unit Root Test: The Augmented Dickey-Fuller (ADF) test, The Phillips-Perron (PP) tests

3. FORECASTING TECHNIQUES

- Forecasting with a single equation regression model
- Forecasting with ARIMA modeling; Box-Jenkins methodology,
- Vector Auto- Regression
- Multi-variate Analysis: Discriminant Analysis and Principal Component Analysis

4. DYNAMIC ECONOMETRIC MODELS

- Autoregressive and distributed lag models
- Geometric lag approach: The Koyck model, Adaptive expectation model
- Concept of rational expectation
- Partial adjustment model
- Polynomial lag: The Almon approach

Reading List:

1. Jhonston J. (1991), Econometric Methods , McGraw Hill Book Co. London
2. Asteriou Dimitrious, (2006), Applied Econometrics, Palgrave Macmillan, New York
3. Gujrati D.N. (1995), Basic Econometrics, (2nd edition) McGraw Hill, New Delhi
4. Kmenta, J. (1977), Elements of Econometrics, (reprint edition) University of Michigan Press, New York.
5. Koutsoyiannis A. (1977), Theory of Econometrics (2nd ed.) The Macmillan Press Ltd. London.
6. Madalla G.S. (1997), Econometrics, McGraw Hill, New York.
7. Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
8. Pindyck, Robert S. and Daniel L. Rubinfeld,(1976), Econometric Models and Economic Forecasts, International Student edition, McGraw-Hill

M. E. Knag
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P-405　　Dissertation / Project 100 marks

Dissertation: - 50 Marks

Presentation: - 30 Marks

Viva Voce　: - 20 Marks

Conclusion

Here, I have come to the end of the project on the ' management function '. I tried my best to include all the necessary points that are required related to the given topic. Some of the information I wrote in the project were taken from the internet and I have also referred to some books. I do hope that my project will be knowledgeable.

It was a wonderful and learning experience for me while working on this project. I enjoyed the hard work I had to put into this project.