NEP and Learning Outcome-based Curriculum Frame Work (LOCF)

For

Post Graduate

M.A. Applied Economics

(To be effective from the Academic Session 2024-25)

Department of Economics

Gurugram University, Gurugram

(A State Govt. University Established Under Haryana Act17 of 2017)

Chairperson

Table of Contents

Chairperson

Background

- The Economics Department of the Gurugram University, Gurugram, Haryana - India was established in 2019.
- Department has started P.G. Program M.A. Economics w.e.f. 2020-2021, M.A. Applied Economics w.e.f. 2022-2023 and PG Diploma in Blue Economy w.e.f. 2023-2024
- Specialization in pure and Applied Economics.
- Intake in First session 2020-22 was 24 Students.
- In Session 2021-23, all 30 seats were filled.
- M.A. Applied Economics course was started under NEP w.e.f. session 2022.

Vision

The vision of the Department is to be a leading academic institution in the field of economics, contributing to the understanding of economic phenomena and their impact on society. The department aims to produce high-quality research, educate and train students to become skilled economists and engage with the broader community to promote informed policy-making and economic development.

Mission

The mission of the Department is to become a magnate for young scholars in the field of economics who contribute to better understanding of economic realities and their impact on today's society. In specific, we strive to:

- Prepare students to acquire applied knowledge of economics to enhance their employability and entrepreneurship.
- Engage students with broader social issues to promote informed policy decisions.
- Focus on development of communication analytical skills for holistic personality development of students.
- Train students in advanced economic analysis with the help of latest software commonly used by business/corporates.
- Encourage both basic and applied research in economics that pushes the frontiers of knowledge in the field for inclusive development.

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About the Program

The global economic environment has become increasingly complex over time, posing a plethora of new challenges for policy analysts, data scientists, and professionals of all disciplines. Do product/factor/financial markets influence total productivity? Why are comparable products priced differently in various stores? How do financial frictions exacerbate economic downturns? What effect do innovation disruptions have on asset prices and the overall economy? What impact do population aging and sluggish growth have on our economy? What causes wealth disparity? Why do gender and racial wage disparities exist? What impact does international commerce have on the environment? These are the types of wide-ranging issues that the study of economics examines. To be able to respond to rapid changes in this environment, one must have a clear comprehension of the economic forces that influence economic outcomes. Economics is studied with a technical and rigorous approach in the M.A. program. Students will develop the ability to think like an economist through the cultivation of solid theoretical, analytical, and critical skills pertinent to economic analysis.

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Programme Outcomes

On completing M.A. Applied Economics Programme, the students shall be able to realize following programme outcomes:

PO	Description
PO-1	Demonstrate knowledge of historical emergence, questions asked, and distinctive contributions of the social science disciplines to the analysis of human behavior and social issues.
PO-2	Visualize, conceptualize, articulate, and solve complex problems through experimentation and observation using theoretical framework of social science disciplines.
PO-3	Critically analyze everyday problems faced by the society, evaluate specific policy proposals, compare arguments with different conclusions to a specific societal issue, and assess the role played by assumptions in such arguments.
PO-4	Develop the capability of defining problems, formulate hypothesis, collect relevant data, develop empirical evidence and interpret the results of such analyses.
PO-5	Develop the ability to apply appropriate quantitative/qualitative techniques used in social science disciplines along with ICT, software etc.
PO-6	Develop deeper understanding, creativity, and originality, analytical and critical skills in chosen specialized areas of social science disciplines leading to employability.
PO-7	Enhance the ability to integrate as well as synthesize the acquired knowledge within the social sciences and beyond.
PO-8	Communicate conclusions, interpretations and implications clearly, concisely and effectively, both orally and in writing for different types of audiences.
PO-9	Use investigative skills necessary for conducting disciplinary- appropriate projects/ research documents/term papers etc.

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Programme Specific Outcomes

On completing M.A. Applied Economics Programme, the students shall be able to realise following outcomes:

PSO	Description
PSO-1	To develop ability to amalgamate economic theory and practices of broad development aspects of international and national economic policies and analysis of different sectors.
PSO-2	Provide intensive specializations in areas of finance and international business so student will be able to apply disciplinary principles to conduct academic inquiry; Evaluate aspects of social reality using the principles of the discipline
PSO-3	Build mastery in scientific analysis through advanced quantitative methods including statistics and econometrics
PSO-4	Make students competent to engage with real world economic challenges in business, industry, public sector
PSO-5	Train students with critical thinking for higher academic pursuits in research
PSO-6	To make the students capable of addressing and solving the issues in the society and the economy by contextualizing the knowledge they have acquired and finally dissemination of the same.
PSO-7	Undertake research projects independently using appropriate research methods and tools.
PSO-8	Take up highly specialized and professional jobs in the financial and developmental sectors
PSO-9	To teach a wide range of knowledge in current economic issues and gaining analytical skills, including problem-solving, project work and presentation so as enable students to take prominent roles in a wide spectrum of employment and research.

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Postgraduate Attributes

- Disciplinary Knowledge
- Creative and Critical Thinking
- Reflective Thinking
- Problem Solving
- Analytical Reasoning
- Communication Skills
- Research Skills
- Life Skills
- Multicultural Competence
- Moral and Ethical Values
- Life-long Learning
- Global Competence

Course Outcomes and Mapping Matrix

1. Each paper of the M.A. Applied Economics Course results in four Course/Learning Outcomes (COs) which are broadly mapped or associated with POs as well as PSOs.
2. Mapping is a process of representing the correlation between COs and POs, COs and PSOs in the scale of 1 to 3 as follows (Table 1)

Table 1: Scale of mapping between COs and Pos & Cos and PSOs

Scale 1	If the contents of course have low correlation (i.e. in agreement with the particular PO to a small extent) with the particular Programme outcome
Scale 2	If the contents of course have medium correlation (i.e. in agreement with the particular PO to a reasonable extent)with the particular Programme outcome
Scale 3	If the contents of course have strong correlation (i.e. in agreement with the particular PO to a large extent) with theparticular Programme outcome

Qualification Descriptors

The candidate must have minimum 45% marks in (42.75% marks for SC/ST/Blind/physically and Differently abled Candidates of Haryana only) their bachelor degree in any discipline on any other examination from a recognized University.

Dissertation

a) **Dissertation** is a compulsory paper in 4th semester.
b) **Topic** for the Dissertation can either be selected by the student or suggested by the faculty on the issues related to: Specialization Elective Course or Core Courses or latest developments, or current issues in Economics at the beginning of the Third Semester.
c) **Submission of Dissertation** by the Students to the Department shall be before the end of the Fourth Semester [i.e., on or before the last working day of the Semester].

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Gurugram University, Gurugram

(A State University Established under Haryana Act 17 of 2017)

Examination Scheme

&

Syllabus

For

M.A. APPLIED ECONOMICS

(SEMESTER- I to IV)

(w.e.f. 2024-2025)

Gurugram University, Gurugram

(A (State University Established under Haryana Act 17 of 2017)

Study & Evaluation Scheme

of

M.A. Applied Economics

Summary

Program : M.A. Applied Economics

Duration : Two-year full time (Four Semesters)

Medium : English

Minimum Required Attendance : 75%

Total Credits : 100

Assessment/Evaluation

Internal	External	Total
30	70	100

Internal Evaluation (Theory Papers)

Minor Test	Attendance	Assignment	Total
20	5	5	30

Duration of Examination

External	Internal (Minor Test)
3 hrs.	1 ½ hrs.

To qualify the course, a student is required to secure a minimum of 40% marks in aggregate including the end semester examination and internal evaluation. (i.e. both internal and external). A candidate who secures less than 40% of marks in a course shall be deemed to have failed in that course. The student should have at least 40% marks in aggregate to clear the semester.

Scheme of Programme

Semester I

Course Code	Course Title	Course ID	L	T	P	L	T	P	Total Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-A01	Micro Economic Theory and Applications-I	241/AE/CC101	4	0	0	4	0	0	4	30	70			100
CC-A02	Macro Economic Theory and Policy-I	241/AE/CC102	4	0	0	4	0	0	4	30	70			100
CC-A03	Mathematics for Economics	241/AE/CC103	4	0	0	4	0	0	4	30	70			100
Discipline Specific Elective Courses														
DSE-01 (One from Pool of Courses)	1. Basics of Mathematics & Statistics	241/AE/DS104	3	0	0	3	0	0	3	25	50			75
	2. Public Economics	241/AE/DS105												
	3. Demography	241/AE/DS106												
Multidisciplinary Course(s)														
MDC-01	One from Pool of Courses		-	-	-	-	-	-	3	-	-	-	-	75
Ability Enhancement Course(s)														
AEC-01	One from Pool of Courses		-	-	-	-	-	-	2	-	-	-	-	50
Value-added Course(s)														
VAC-01	One from Pool of Courses		-	-	-	-	-	-	2	-	-	-	-	50
Total Credits									**22**					

Semester II

Course Code	Course Title	Course ID	L	T	P	L	T	P	Total Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-A04	Micro Economic Theory and Applications-II	241/AE/CC201	4	0	0	4	0	0	4	30	70			100
CC-A05	Macro Economic Theory and Policy-II	241/AE/CC202	4	0	0	4	0	0	4	30	70			100
CC-A06	Statistics for Economics	241/AE/CC203	4	0	0	4	0	0	4	30	70			100
Discipline Specific Elective Courses														
DSE-02 (One from Pool of Courses)	1. Indian Economy	241/AE/DS204	3	0	0	3	0	0	3	25	50			75
	2. Financial Economics	241/AE/DS205												
	3. International Business	241/AE/DS206												
Multidisciplinary Course(s)														
MDC-02	One from Pool of Courses		-	-	-	-	-	-	3	-	-	-	-	75
Ability Enhancement Course(s)														
AEC-02	One from Pool of Courses		-	-	-	-	-	-	2	-	-	-	-	50
Skill Enhancement Course(s)														
SEC-01	Data Analysis with Statistical Softwares-I / One from Pool of Courses	241/AE/SE201	0	0	2	0	0	2	2	-	-	15	35	50
Total Credits									**22**					

Semester III

Course Code	Course Title	Course ID	L	T	P	L	T	P	Total Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-A07	International Economics	241/AE/CC301	4	0	0	4	0	0	4	30	70			100
CC-A08	Basic Econometrics	241/AE/CC302	4	0	0	4	0	0	4	30	70			100
CC-A09	Research Methodology	241/AE/CC303	4	0	0	4	0	0	4	30	70			100
Discipline Specific Elective Courses														
DSE-03 (Two from Pool of Courses in one specialization)	**(A) Specialization: Finance**		3	0	0	3	0	0	3	25	50			75
			3	0	0	3	0	0	3	25	50			75
	1. Money Market	241/AE/DS304												
	2. Financial Derivatives	241/AE/DS305												
	3. Financial Regulations and Supervision	241/AE/DS306												
	4. Economics of Insurance	241/AE/DS307												
	(B) Specialization: International Trade & Business													
	1. International Marketing	241/AE/DS308												
	2. Capital Flows in Financial Markets	241/AE/DS309												
	3. Foreign Trade Procedures and Documentation	241/AE/DS310												
	4. India's Foreign Trade and Policy	241/AE/DS311												
Multidisciplinary Course(s)														
MDC-03	One from Pool		3	0	0	3	0	0	3	25	50			75
Skill Enhancement Course(s)														
SEC-02	Data Analysis with Statistical Softwares-II / One from Pool of Courses	241/AE/SE301	0	0	2	0	0	2	2	-	-	15	35	50
Value-Added Course(s)														
VAC-02	One from the University list/MOOC		-	-	2	-	-	2	2					50
Seminar														
Seminar	Seminar	-	-	-	-	-	-	-	2	-	-	-	-	50

Internship/Field Activity#														
Internship/Project Report/Case Study	Internship/Project Report/Case Study/Data Collection	-	-	-	-	-			4	-	-	-	-	100
Total Credits									**31**					

#Four credits of internship earned by a student during summer internship after 2nd semester will be counted in 3rd semester of a student who pursue 2 year PG Programme without taking exit option.

Semester IV

Course Code	Course Title	Course ID	L (Hrs)	T	P	L Credits	T	P	Total Credits	MARKS TI	TE	PI	PE	Total
Core Course(s)														
CC-A10	Economics of Growth & Development	241/AE/CC401	4	0	0	4	0	0	4	30	70			100
CC-A11	Advanced Econometrics	241/AE/CC402	4	0	0	4	0	0	4	30	70			100
Discipline Specific Elective Courses														
DSE-04 (Two from Pool of Courses in one of the specialization)	**A) Specialization: Finance**	241/AE/DS403	3	0	0	3	0	0	3	25	50			75
	1. Capital Markets		3	0	0	3	0	0	3	25	50			75
	2. Empirical Methods in Finance	241/AE/DS404												
	3. Risk Management: Theory and Practice	241/AE/DS405												
	4. Operations Research Techniques	241/AE/DS406												
	B) Specialization: International Trade & Business													
	1. International Logistics	241/AE/DS407												
	2. Capital Markets & Risk Management	241/AE/DS408												
	3. Foreign Exchange Management	241/AE/DS409												
	4. Operations Research Techniques	241/AE/DS410												
Multidisciplinary Course(s)														
MDC-04	One from Pool of Courses		-	-	-	-	-	-	3	-	-	-	-	75
Ability Enhancement Course(s)														
AEC-03	Choose One Subject from Pool of the subjects		-	-	-	-	-	-	2	-	-	-	-	50
Community Engagement/Field Work/Survey/Seminar/ Dissertation														
Dissertation	Dissertation		-	-	-	-	-	-	6	-	-	-	-	150
Total Credits									**25**					

Here, L stands for Lecture
T stands for Tutorial
P stands for Practical

Syllabus
M.A. Applied Economics 2024-25

SEMESTER- I

241/AE/CC101	**Micro Economic Theory and Applications-I**	**L**	**T**	**P**	**C**
		4	**0**	**0**	**4**

Max. Marks: 100 **Written Exam: 70**
Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

This course is designed to give you a strong understanding of the theory and logic of microeconomics. We will discuss the standard models of how consumers and producers behave, and the implications of these models for resource allocation and market efficiency. We will also discuss the basic tools of microeconomics, including optimization, comparative statics and equilibrium.

Course Outcomes

CO1: Understand the extent and complexity of Microeconomics, as well as the fundamentals of demand and supply, to use this knowledge to appreciate real-world situations together with critical thinking and economic problem analysis skills.
CO2: Develop ability to think critically and evaluate economic problems, with an emphasis on applying knowledge of fundamental principles of production and costs to a grasp of real-world issues.
CO3: Analyse given circumstances on a microeconomic level across a range of marketplaces. Recognize the internal workings and presumptions of the various market analysis frameworks, as well as their capacity for explanation and constraints.
CO4: Use economic analysis to assess contentious problems and policies.

Unit-I

Theory of Consumer Behavior **Teaching Hours: 12**

Positive and Normative Analysis of Micro Economics, Theorizing and Modeling; Theory of Consumer Behavior: Cardinal Utility, Indifference Curve, Revealed Preference Theory,

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Derivation of Consumer Demand, Slutsky's and Hicks Theorem (Substitution And Income Effect); The Consumer's Surplus (Marshall and Hicks) and its applications; Market Demand, Network Externalities, Indirect Utility Function.

Unit-II

Theory of Production& Cost **Teaching Hours:12**

Laws of Production: Short Run and Long Run; Internal and External Economies and Diseconomies; Derivation of Short and Long Run Cost Curves, Optimum Input Combination Simple Case of a Multiproduct Firm; Technical Progress and Production Function - Hick's Classification, Elasticity of Substitution, Properties of Cobb-Douglas and CES Production Function.

Unit-III

Market Structure **Teaching Hours: 12**

Pricing Process and Equilibrium of Firm and Industry under Perfect Competition, Monopoly (Including Discriminating and Bilateral Monopoly), Monopolistic Competition, Price and Output Decisions under Monopolistic Competition, Equilibrium with Product Differentiation and Selling Costs, Excess Capacity under Monopolistic and Imperfect Competition, Criticism of Monopolistic Competition.

Unit-IV

Economics of Information **Teaching Hours: 12**

Asymmetrical Informational and Adverse Selection, Principal Agent Framework, Moral Hazard, Hidden Action Modeling, Adverse Selection in Markets, Efficiency Wage Model.

Economics of Uncertainty - Decision Rules under Uncertainty; Individual Behaviour towards Risk: Risk, Gambling, Insurance Decisions.

Suggested Readings

- Koutsoyiannis, A. (1979), *Modern Microeconomics, (2nd Edition)*, Macmillan Press, London.
- Varian, H. (2003), *Intermediate Microeconomics*, East-West Press.
- Salvatore D (2006), *Microeconomics-Theory and Applications*, Oxford University Press
- Lipsey and Chrystal (2014), *Economics*, Oxford University Press
- Mankiw (2006), *Principles of Microeconomics*, Cengage Learning
- Mansfield Edwin, *Applied MicroEconomics*, W.W.Norton, New York London.
- Akerlof, G. (1970). The Market for `Lemons': Quality Uncertainty and the Market Mechanism. Quarterly Journal of Economics, 84(3), 488-500.
- Collel A., Whinston and Green (2012), *Microeconomic Theory*, Oxford University Press
- Henderson &Quandt (1980). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Pindyck R. &Rubinfeld, D. (2018). *Microeconomics (9th Edition)*. Pearson.

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241/AE/CC102	Macro Economic Theory and Policy-I	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

This paper aims at strengthening the knowledge of important macroeconomic variables and their role in determining the equilibrium level of output and employment and provides insights into the factors influencing the capital inflows and outflows in an open economy model. The students will be able to critically evaluate the consequences of basic macroeconomic policy options under differing economic conditions.

Course Outcomes

CO1: Comprehend both the conventional and Keynesian theories of employment and output.
CO2: Understand the importance of consumption and investment theories.
CO3: Comprehend the IS-LM framework and its many features and the behaviour of macroeconomic variables by recognising and understanding the extended model
CO4: Analyze the implications of fundamental macroeconomic policy alternatives under varying economic situations across the business cycle.

Unit-I

Classical and Keynesian Framework **Teaching Hours: 10**

Classical Model of Output and Employment; Neutrality of Money and Classical Dichotomy, Keynes's Criticisms of Classical Model of Output and Employment; Keynes' Model of Determination of Income; Changes in Equilibrium Income, Stabilization Policy under Keynesian System

Unit-II

Consumption Function **Teaching Hours: 12**

Keynes Psychological Law of Consumption; Post Keynesian theory of consumption- Absolute Income, Relative Income, Permanent Income, Life Cycle.

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Theories of Investment

The Marginal Efficiency of Capital Approach; The Accelerator Theory; Profits Theory; Jorgenson's Neoclassical Model; Adjustment Costs and q theory.

Unit-III

IS and LM Framework **Teaching Hours: 14**

The Goods Market and Money Market; IS-LM framework and IS-LM Simultaneous Equilibrium, Effectiveness of Monetary and Fiscal Policy.

Mundell-Fleming Model with Flexible and Fixed Exchange Rate Regimes, Impossible Trinity; Policy Implications (Fiscal, Monetary and Trade Policy) of Mundell-Fleming Model.

Unit-IV

Business Cycles **Teaching Hours:12**

Models of Business Cycles- Keynesian, Hicks, Samuelson, Kaldor, Goodwin, Schumpeter; Control of business cycles – relative efficacy of monetary and fiscal policies.

Suggested Readings

- Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.
- Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2Vols.), Oxford University Press, London.
- Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
- Dornbusch, R. and F. Stanley (1999), Macroeconomics, Irwrin McGraw Hill, Inc. New York, 7th Edition.
- Heijdra, B.J. and V.P. Fredericck (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
- Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
- Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
- Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
- Mankiw, N.G. and D. Romer (Eds.) (1991), New Keynesian Economics, (2Vols.), MIT Press, Cambridge.
- Mankiw, Gregory N. (2003). Macroeconomics. Worth Publishers.
- Frisch, H. (1983), Theories of Inflation, Cambridge University Press, Cambridge.
- Sheffirin, S.M. (1996), Rational Expectations, Cambridge University Press, Cambridge.
- Lucas, R. (1981), Studies in Business Cycle Theory, MIT Press, Cambridge, Masscechusetts.
- Taylor, L. (1983), Structuralist Macroeconomics, Basic Books, New Longman.
- Turnovsky, S.J. (1977), Macroeconomic Analysis and Stabilization Policy, Cambridge University Press, Cambridge.

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241/AE/CC103	Mathematics for Economics	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note for the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

This course has been designed with the objective to learn applications of mathematical tools in Economics. This course is designed to kit out the learners to understand the principles and theories of Economics by using mathematical tools and techniques to craft aptness in decision making or policy formulation.

Course Outcomes

CO1: Understand the use of matrix algebra in solving system of simultaneous equations dealing with various economic aspects, and problems associated with input-output models.

CO2: Acquire basic and applied knowledge of differential and integral calculus and become able to analyze optimizing behavior of consumers and producers along with the computation of their surpluses.

CO3: Learn the techniques of differential as well as difference equations and thus, attain the ability to understand the processes of continuous as well as lagged adjustments in various models of market mechanism, growth, business cycles, and national income.

CO4: Comprehend the tools of linear programming and game theory and their applications in evaluating optimizing behavior in economic and business problems

Unit-I

Concept of Matrix and Determinant **Teaching Hours: 12**

Simple Operations on Matrices, Matrix Inversion and Rank of Matrix; Solution of Simultaneous Equations through Cramer's Rule and Matrix Inverse Method; Introduction to Input-Output Analysis.

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Unit-II

Rules of Differentiation and Integration **Teaching Hours:14**

Rules of Partial Differentiation and Interpretation of Partial Derivatives, Problems of Maxima and Minima in Single and Multivariable Functions, Unconstrained and Constrained Optimization in Simple Economic Problems; Simple Techniques Including Integration by Substitution and by Parts, Consumer's and Producer's Surplus.

Unit-III

Differential Equation **Teaching Hours:10**

Solution of First Order Linear Differential Equation, Linear Differential Equation of Second Order with Constant Coefficient and Term; Economic applications of differential equations.

Unit-IV

Linear Programming **Teaching Hours:12**

Linear Programming, Basic and Optimal solution, Solution of linear programming problem through graphical and simplex method.

Suggested Readings

- Chiang, Alpha C. "Fundamental Methods of Mathematical Economics" (Mc-Graw Hill)
- Dowling, Edward T "Mathematics for Economists" (Schaum's outline Series, Tata Mc-Graw Hill)
- Quantitative Techniques in Management by N.D. Vohra, TMH.
- Quantitative Methods by D.R. Aggarwal
- Basic Mathematics for Economists by R.C. Joshi, New Academic Publishing
- Leontief, W. (1936) Quantitative input-output relations in the economic systems of the United States. Review of Economics and Statistics, Vol 18, pp.105-125.
- Miller, R.E. and P.D. Blair (1985) Input-Output Analysis: Foundations and Extensions. Prentice-Hall, Englewood Cliffs, New Jersey.
- Mehta, B. C. &Madnani, G. M. K. (2018). Mathematics for Economists. Sultan Chand & Sons, New Delhi.
- Mouhammed, Adil H. (2004). Quantitative Methods for Business and Economics. PHI, New Delhi.

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241/AE/DS104	Basics of Mathematics & Statistics	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The course aims to provide students with a strong foundation in basic mathematical concepts, enhancing their mathematical skills and enabling the application of quantitative techniques such as measures of central tendency, variability, and correlation. Additionally, students will develop an understanding of dispersion, skewness, and kurtosis

Course Outcomes

CO1: To clear preliminary concepts of mathematics.
CO2: To illustrate the method of applying mathematical techniques to economic theory in general.
CO3: To develop the understanding of some basic concepts and terminology that are fundamental to statistical analysis and inference.
CO4: To develop the notion of measures of central tendency.
CO5: To discuss the concept of Dispersion, skewness and kurtosis.

Unit-I

Elementary Set Theory **Teaching Hours: 12**

Operations on sets; Ordered Pairs, Cartesian products of Sets. The Real numbers: Natural Numbers, Integers, rational and Irrational Numbers. Functions: Types of Functions; function in economic theory: Revenue, cost, demand, production and profit functions.

Unit-II

Statistics & Central Tendency **Teaching Hours: 12**

Statistics: Meaning, Scope, importance and limitations, Frequency distribution: Bivariate and cumulative. Central Tendency: Arithmetic Mean, Median, Quartiles, Deciles, Percentiles, Mode.

Unit-III

Measures of Dispersion **Teaching Hours: 12**

Range, inter-quartile range, quartile deviation, mean deviation, variance, standard deviation, Quartile Deviation, Coefficient of variation, Lorenz curve, skewness and Kurtosis.

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Suggested Readings:

- Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.
- John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.
- Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011.*
- Chiang, Alpha C. "Fundamental Methods of Mathematical Economics" (Mc-Graw Hill)
- Dowling, Edward T "Mathematics for Economists" (Schaum's outline Series, Tata Mc-Graw Hill)
- Basic Mathematics for Economists by R.C. Joshi, New Academic Publishing

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241/AE/DS105	Public Economics	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. The objective of this course is to improve the knowledge of the students with the concepts and theories of public economics. The subject encompasses a host of topics including public goods, market failures and externalities.

Course Outcomes

CO1: Understand the various aspects of public economy from the perspective of efficiency and become able to identify the rationale for government intervention.

CO2: Appreciate the perspectives of voters, politicians, and bureaucrats in a society via grasping the knowledge of public choice models.

CO3: Comprehend the theories of public expenditure and taxation and thus attain the ability of critical thinking regarding financial activities of the government.

Unit-I

The Public Economy **Teaching Hours: 12**

Economic rationale of mixed economy; Exchange Economy, Production Economy and Efficiency; Asymmetric Information and Market Failure; The Problem of Externalities: Coase Theorem, Permit Trading, Common Property Resources; Public goods: Concept, Characteristics, and Types; Efficient Provision of Public Goods: Bowen Model, Lindahl Equilibrium, Samuelson Model; Nash Equilibrium Approach.

Unit-II

Public Choice Theory **Teaching Hours: 12**

Rationale of Public Choice; Voting Rules; Rational Voter Hypothesis; Buchanan and Tullock Model; Bowen-Black Model; Arrow's Impossibility Theorem; Downs Model; Models of Bureaucratic Behaviour: Niskanen, Tullock; Voting and the Leviathan Hypothesis.

Chairperson

Unit-III

Public Expenditure and Taxation **Teaching Hours: 12**

Wagner's hypothesis, Peacock Wiseman hypothesis; Economic Effects of Public Expenditure; Criteria for Public Investment, Social Cost-Benefits Analysis; Tax Incidence; Tax Buoyancy; Taxable Capacity; Excess burden of tax; Optimal Taxation; Effects of Taxation on Work Effort, Savings, and Investment.

Suggested Readings

- Lekhi, R. K., Singh, Joginder: Public Finance, Kalayani Publishers.
- Hajela, T.N. 'Public finance. (4th Ed.) Ane BOOKs Pvt Ltd, 2010.
- Musgrave, R & Musgrave, P B: Publice Finance in Theory and Practice. McGraw – Hill International Eds.
- Boadway, R. (1984). Public Sector Economics. Cambridge Winthrop Publishers.
- Cullis, John & Jones, Philip (2009). Public Finance and Public Choice: Analytical Perspectives. Oxford University Press.
- Herber, B.P. (1984). Modern Public Finance.
- Rosen, H. & Gayer, T. (2009). Public Finance. McGraw Hill.
- Hindriks, J. & Myles, G. D. (2013). Intermediate Public Economics. The MIT Press.
- Peacock, and Straw, G K (1970): The Economic Theory of Fiscal Policy
- Chelliah, R C (1996): Sustainable Growth, Essays on Financial and Fiscal Sector Reforms, Oxford University Press.
- RaghbendraJha (1999): Modern Public Economics, Rotledge Govt. of India, Ministry of Finance: Sarkaria Commission Report on Centre State Financial Relations.
- Akerlof, G. (1970). The Market for `Lemons': Quality Uncertainty and the Market Mechanism.Quarterly Journal of Economics, 84(3), 488-500.
- Ayres, I. & Levitt, Steven D. (1998). Measuring Positive Externalities from Unobservable Victim Precaution: An Empirical Analysis of Lojack. Quarterly Journal of Economics, 113(1), 43-77.
- Coase, R. (1960). The Problem of Social Cost. Journal of Law and Economics, 3, 1-44.
- Hillman, A. L. (2009). Public Finance and Public Policy. Cambridge University Press.
- Leach, John (2004). A Course in Public Economics. Cambridge University Press.
- Metcalf, G. (2009). Market-Based Policy Options to Control U.S. Greenhouse Gas Emissions. Journal of Economic Perspectives, 23(2), 5-27.

Chairperson

241/AE/DS106	Demography	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Outcomes

CO1: Learn the fundamentals of demography, concepts, and population theories in order to explain historical and present population characteristics.

CO2: Explain and compare the demographic processes of Fertility, Mortality.

CO3: Understand and explain population migration theoretical framework as well as the Growth and distribution of Rural- Urban Population in Developed and Developing countries with special reference to India.

CO4: Critically analyze various population policies and strategies. Understand logically and critically demographic data base of India and develop the ability to use it in research projects.

Unit-I

Population and Development **Teaching Hours: 10**

Population and Development: Evolution of Demography; Meaning, subject matter and importance of Demography; Concepts of population change and Composition of population; Sources of Demographic Data.

Theories of Population: Malthusian Theory, Optimum Theory; Theories of Demographic Transition: Blacker and Boserup; Biological theories of Population; Approaches of Meadows, Becker and Easterlin.

Unit-II

Fertility, Mortality and Migration **Teaching Hours: 14**

Fertility - Meaning & Concepts; Factors affecting Fertility; Levels and trends of fertility in developed and developing Countries.

Mortality - Meaning & Concepts; Factors affecting Mortality; Life Tables - Construction & Uses; Concepts of stationary, stable and quasi stationary population.

Migration: Meaning & Types, Determinants of Migration, Sources of Migration Data, International Migration, Brain Drain and Brain Gain, Theories of Migration, Migration in India

Chairperson

Unit-III

Demographic Database & Population Policy in India **Teaching Hours: 12**

Census in India – Methodology and Characteristics; Nature of information collected with emphasis on 2001 and 2011 Census. National Family Health Survey – Objectives & Various Rounds. Sample Surveys in India; Registration System in India.

Evolution of Population: Shift of Population Policy from Population control to Reproductive and Child health care; Family Planning Strategies and their outcomes; National Population Policy, 2000; National Population Commission.

Suggested Readings

- Aggarwal, S.N. (1985). India's Population Problem. Tata McGraw-Hill, Mumbai.
- Bhende, Asha A. &Kanitkar, Tara (2014) Principles of Population Studies. Himalaya
- Bose, A. (1996). India's Basic Demographic Statistics. B.R. Publishing Corporation, New Delhi.
- Bouge, D.J. (1971). Principles of Demography, John Wiley, New York.
- Chandna, R. C. (2014). A Geography of Population: Concepts, Determinants and Patterns. Kalyani Publishers.
- Choubey, P.K. (2000). Population Policy in India. Kanishka Publications, New Delhi.
- DLHS Reports, www.sciips.org
- Gulati, S.C. (1988). Fertility in India: An Econometric Study of a Metropolis. Sage Publications, New Delhi
- Harper, S. (2018). Demography: A Very Short Introduction, Cambridge University Press.
- Irudaya Rajan, S. &Summeetha, M. (Eds.). (2020). Handbook of Internal Migration in India. Sage Publications.
- Majumdar, P.K. (2010). Fundamentals of Demography. Rawat Publication.
- Mishra, J.P. (2018). Demography. Sahitya Bhawan Publication.
- Mukherji, S. (2013). Migration in India: Links to Urbanization, Regional Disparities, and Development Policies. Rawat
- NFHS Reports, www.sciips.org
- Novell, C. (1990), Methods and Models in Demography. Bellhaven, Washington D.C.
- Pathak, K.B. & Ram, F. (2016). Techniques of Demographic Analysis. Himalaya Publishing House.
- Seth, M. (2000). Women and Development: The Indian Experience. Sage Publications, New Delhi.
- Siegel, Jacob S. & Swanson, David A. (2004). The Methods and the materials of Demography. Second Edition, Elsevier Science.USA.
- Srinivasan, K. (1998). Basic Demographic Techniques and Applications. Sage publications.
- Srinivasan, Krishnamurthy (2017). Population Concerns in India: Shifting Trends, Policies &Programs. Sage Publication.

Chairperson

SEMESTER-II

214/AE/CC201	Micro Economic Theory and Applications-II	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

This course is designed to give you a strong understanding of the theory and logic of microeconomics. We will discuss the standard models of oligopoly, and the implications of these models for resource allocation and market efficiency. We will also discuss game theory, theories of firms including optimization, comparative statics and equilibrium.

Course Outcomes

CO1: Understand the relevance of game theory, and various models of oligopoly along with their implications.

CO2: Appreciate the theories of firm and product pricing and become able to identify the major determinants of managerial decision making and product pricing.

CO3: Comprehend the theories of factor pricing and their policy relevance.

CO4: Learn the basics of general equilibrium approach and welfare economics.

Unit-I

Oligopoly **Teaching Hours: 14**

Collusive Oligopoly- Cartels, Price Leadership and Basing Point Price System; Non-Collusive Oligopoly- Cournot, Bertrand, Chamberlin and Kinked Demand Models of Oligopoly.

Theory of Games

Two-person Zero-sum game, Pure and Mixed strategy, Saddle Point Solution.

Chairperson

Unit-II

Extension of Traditional Theory of Firm **Teaching Hours: 12**

Baumol's Theory of Sales Revenue Maximization; Marris' Model of The Managerial Enterprise; Williamson's Model of Managerial Discretion; Behavioural Model of Cyert and March.

Theory of Product Pricing- Basic Assumptions underlying Traditional Theory of Pricing – Hall and Hitch Full Cost Pricing; Bain's Limit Pricing; Model of Sylos- Labini – Model of Franco Modigliani.

Unit- III

Theory of Factor Pricing **Teaching Hours: 10**

Neoclassical Theory of Factor Pricing Under Competitive Conditions, Monopolistic Power in Product Market, Monoposonistic Power in Factor Market, Bilateral Monopoly in Factor Market, Monopoly in Factor Market; Product Exhaustion Problem; Neoclassical Theory of Rent, Quasi-Rent, and Interest.

Unit-IV

General Equilibrium **Teaching Hours: 12**

Interdependence in Economy Partial and General Equilibrium, Walrasian General Equilibrium; Existence, Uniqueness and Stability of General Equilibrium.

Welfare Economics

Criteria's of Old Social Welfare Economics- Pareto Optimality; New Welfare Economics- Kaldor, Hicks Compensation Criteria, Scitovsky Criteria; Social Welfare Function-Bergson, Samuelson, Arrows Impossibility Theorem, Pigouvian Welfare Economics; Point of Bliss-Theory of Second Best; Rawlsian Concept of Justice.

Suggested Readings

- Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
- Varian, H. (2003), Intermediate Microeconomics, East-West Press.
- Salvatore D(2006), Microeconomics-Theory and Applications, Oxford University Press
- Lipsey and Chrystal(2014), Economics, Oxford University Press
- Mankiw(2006),Principles of Microeconomics,Cengage Learning
- Mansfield Edwin, Applied MicroEconomics, W.W.Norton, New York London.
- Jehle Geoffrey A.andReny Philip J (2008), Advanced Micro Economic Theory, Dorling Kindersley (India)
- Collel A., Whinston and Green (2012), Microeconomic Theory, Oxford University Press.

Chairperson

241/AE/CC202	Macro Economic Theory and Policy-II	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

This paper aims at strengthening the knowledge of important macroeconomic variables and their role in determining the equilibrium level of output and employment and provides insights into the factors influencing the capital inflows and outflows in an open economy model. The students will be able to critically evaluate the consequences of basic macroeconomic policy options under differing economic conditions.

Course Outcomes

CO1: Learn and explain various theories of demand for money.
CO2: Understand the theories of money supply and interest rates.
CO3: Appreciate the theories of inflation along with recent developments.
CO4: Identify the role of expectations in affecting macroeconomic variables and comprehend some latest developments in macroeconomic analysis.

Unit-I

Demand for Money **Teaching Hours: 14**

Classical Approach to Demand for Money – Quantity Theory, Fisher's equilibrium, Cambridge Quantity theory; Keynes Liquidity Preference Approach; Post Keynesian approaches to demand for money: Tobin, Baumol, Friedman, Patinkin's real balance effect; Akerlof and Milbourne (A-M) model; Miller-Orr model.

Unit-II

Supply of Money & Interest Rates **Teaching Hours: 10**

Measures of money supply and Monetary Aggregates; Determinants of money supply; Money Multiplier Approach;

Interest Rates

Theories of Determination of Interest Rate: Classical, Loanable Funds and Keynesian Theory.

Chairperson

Unit-III

Theory of Inflation and Unemployment **Teaching Hours: 12**

The effect of Inflation of the distribution of Income, output, Employment and the Growth Rate; Demand Side and Supply Side theories of inflation.

Phillips Curve; Trade off and Non-Trade Off, Adaptive Expectation and Rational Expectation Modified Philips Curve - Tobin, Samuelson-Solow. Keynesianism Vs Monetarism.

Unit-IV

New Classical Macroeconomics **Teaching Hours: 12**

Rational Expectation Model. Lucas Rational Expectation Theory of Business Cycle, Real Business Cycle Theory, Random Walk of GDP Theory, Critical Evolution of Rational Expectation Model. New Keynesian Economics and its Common Elements, Mankiw's New Keynesian Model

Suggested Readings

- Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.
- Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2Vols.), Oxford University Press, London.
- Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper andRow, New York.
- Dornbusch, R. and F. Stanley (1999), Macroeconomics, Irwrin McGraw Hill, Inc.New York, 7th Edition.
- Heijdra, B.J. and V.P. Fredericck (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
- Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
- Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
- Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
- Mankiw, N.G. and D. Romer (Eds.) (1991), New Keynesian Economics, (2Vols.), MIT Press, Cambridge.
- Mankiw, N. Greogory (2000), Macroeconomics Macmillan Worth Publishers 4th Edition
- Frisch, H. (1983), Theories of Inflation, Cambridge University Press, Cambridge.
- Sheffirin, S.M. (1996), Rational Expectations, Cambridge University Press, Cambridge.
- Lucas, R. (1981), Studies in Business Cycle Theory, MIT Press, Cambridge, Masscechusetts.
- Taylor, L. (1983), Structuralist Macroeconomics, Basic Books, New Longman.
- Turnovsky, S.J. (1977), Macroeconomic Analysis and Stabilization Policy, Cambridge University Press, Cambridge.

Chairperson

241/AE/CC203	Statistics for Economics	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

The objective of this course is to make the students acquainted with statistical tools and techniques to understand the behaviour of data and its further analysis to increase the extent to which statistical thinking is embedded in economics for decision making. The course also aims to provide the knowledge of statistical packages so as to make the teaching learning process a problem solving and interesting one.

Course Outcomes

CO1: Comprehend the evaluation of degree and directional relationship as well as the cause and effect relationship between two variables.

CO2: Understand and address the difficulties of index number formulation and interpretation for economic variables, as well as measure different components of time series.

CO3: Understand, explain, solve, and implement hypothesis testing and the selection of an appropriate statistical technique for testing hypotheses.

CO4: Apply, solve, and prove several probability theorems in addition to analysing and interpreting statistical data with proper probability distributions.

Unit-I

Correlation and Regression Analysis **Teaching Hours: 12**

Karl Pearson and Spearman's Correlation Coefficients, Simple Regression Analysis, Single Linear Equation Regression Model (by OLS Method); Concept of an Estimator and its Desirable Properties; Coefficient of Determination; Estimation of Simple and Exponential Growth Rates.

Unit-II

Index numbers **Teaching Hours: 12**

Laspeyres, Paasche's and Fisher's Ideal Index Numbers, Time Reversal, Factor Reversal and Circular Tests; Chain Base Indices, Base Shifting Splicing and Deflating the Index Numbers, Costs of Living Index Numbers and Consumer Price Index Numbers; Time Series: Components of Time

Chairperson

Series and their Decomposition, Methods of Measuring Trend, Cyclical, Seasonal and Irregular Variation

Unit-III

Hypothesis Testing **Teaching Hours: 12**

Statistical Hypothesis, Distribution of Test Statistics, Type I and Type II Errors, Power of Test; Types of Data and Statistical Analysis Procedures; Univariate, Bivariate and Multivariate (Only Overview); Hypothesis Testing Procedures Based on Z, t, Chi Square and F-Test and One-Way ANOVA.

Unit-IV

Probability Theory and Sampling **Teaching Hours: 12**

Elementary Theory Sample Spaces and Events; Laws of Addition and Multiplication; Conditional Probability; Bayes Theorem (Statement); Binomial, Poisson and Normal Distribution; Basic Concepts of Sampling- Random and Non-Random Sampling.

Suggested Readings

- Vohra, N. D. Quantitative Techniques in Management, Tata McGraw Hill, New Delhi.
- Speigal, M. R. Theory and Prodblems of Statistics, McGraw Hill Book, London
- Croxton, F. E., D. Cowden and S. Kliein, Applied General Statistics, Prentice Hall,New Delhi.
- Koutsoyiannis, A. (2001). Theory of Econometrics. Palgrave Macmillan Limited.
- Gupta S.C. and V.K. Kapoor, Fundamentals of Applied Statistics, S. Chand and Sons New Delhi.
- Yates, Frank, Sampling Methods for Census and Surveys, Charles, Griffin Co.,London.
- Cocharm, W. G., Sampling Techniques, John Willey, New York.
- Hansen, Hurditz and Meadow, Sample Survey Methods and Theory, John Willey New York.
- Naghshpour, S. (2012). Statistics for Economics. Business Expert Press
- Gupta S. C. Fundamentals of statistics, Himalaya Publishing house, New Dehlhi.
- Gupta S.P. and Gupta M. P. Business statistics, Sultan Chand and Sons, New Delhi.
- Kamenta J. Elements of Econometrics, Machmillan Publishing Co., Inc. New York.
- Sharma, J.K. (2012). Business Statistics, Dorling Kindersley (India) Pvt. Ltd., New Delhi.

Chairperson

241/AE/DS204	Indian Economy	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The objective of this course is to make students understand with the current and critical issues, challenges and problems of the Indian economy.

Course Outcomes

CO1: Understand the basic features of Indian economy, sources of revenue, how the government manages the fiscal imbalance in the economy.
CO2: Understand agriculture as the foundation of economic growth and development and analyze the progress and changing nature of agricultural sector and its contribution to the economy.
CO3: Utilize the detailed skills and techniques to address the problems of Indian economy like poverty, inequality, unemployment.

Unit-I

Economic development since independence **Teaching Hours: 10**

Indian Economy during the planning era; Planning Commission to NITI Aayog; Sustainable Development Goals and Indian Economy; Trends of national income in India; Economic Reforms in India; Macroeconomic Stabilization; Structural Reforms.

Unit-II

Indian Agriculture and Industrial Sector in India **Teaching Hours: 12**

Agriculture: Productivity trends and crop pattern; Food security in India, Issues and policies regarding sustainable agriculture in India; Agriculture Policy Vision 2030

Structural change in Indian Economy

Social Sector Reforms: Education, Health, Poverty, Inequality and Unemployment in India; Financing of Infrastructure Development.

Chairperson

Unit-III

Policy Approaches in Fiscal, Financial and External Sector **Teaching Hours:14**

Fiscal and Monetary Policy Approaches; Tax Reforms, Central Government Finances; Financial Sector Reforms, Foreign Trade Liberalization, Exchange Rate Policy; World Trade organization (WTO) and Indian Competition Policy.

Suggested Readings

- Kapila, U. (2018), 'Indian Economy since Independence', Academic Foundation, 28th Edition.
- Dutt and Sundharam, 'Indian Economy', 65th edition, S.Chand
- Mishra & Puri, (2015), 'Indian Economy', Himalaya Publishing House.
- Rangarajan, C., (2004), 'Select Essays on Indian Economy', Vol.1&2, Academic Foundation.
- Government of India, Ministry of Finance, "Economic Survey (latest Issue).
- Government of India, Ministry of Finance, "Finance Commission Report (latest Issue).
- Krueger A. (2003), 'Economic Policy Reforms and the Indian Economy', Oxford University Press.
- Dev, S. Mahendra, Babu, P.G. (2016), 'Development in India Micro and Macro Perspectives', Springer.

Chairperson

241/AE/DS205	Financial Economics	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

Financial economics is the branch of economics concerned with the working of financial markets, such as the stock market and the finances of companies. The course focuses equally on the theoretical framework as well as the practical aspects of the functioning of financial markets. The course is intended to provide an in-depth understanding of the operational issues of the capital and debt market network along with its regulatory framework.

Course Outcomes

CO1: Compare investment alternatives on key investment attributes.

CO2: Apply compounding and discounting formulae to various situations in finance.

CO3: Deliberate the implications of the efficient market hypothesis for investment analysis.

Unit-I

Introduction **Teaching Hours: 14**

Meaning, scope and objectives of financial economics; the agency problem; maximization of shareholder's wealth; Return and Risk: Historical and Expected; Time Value of Money: Future and Present Value Methods; Newman – Morgenstern Utility Index and Application.

Financial markets and instruments: Equity Market, Debt Market, Money Market and Derivative Market; Mutual Funds: Open-ended Schemes Versus Closed-ended Schemes; Buying and Selling Securities: Order Size, Time Limit, Types of Orders, Margin Accounts.

Unit-II

Portfolio Theory **Teaching Hours: 12**

Efficient Set Theorem: Feasible Set, Selection of Optimal Portfolio; Concavity of Efficient Set; The Market Model: Random Error Terms, Graphical Representation, Beta, Actual Returns; Diversification; Markowitz's Portfolio Approach; New Portfolio Theory; Capital Asset Pricing Model; Arbitrage Pricing Theory; Multi-factor Model; Equity Premium Puzzle; Portfolio Revision.

Chairperson

Unit-III

The Valuation of Fixed Income Securities **Teaching Hours: 10**

Bond Attributes; Bond Prices; Bond Pricing Theorems; Bond Yields: Current Yield, Yield to Maturity, Yield to Call, Realized Yield to Maturity; Risks in Bonds; The Yield Curve; Term structure of interest rates; Determinants of Yield Spreads; Bond Portfolio Management: The Passive and Active Strategies.

Suggested Reading

- Burton G. Malkiel, A Random Walk Down Wall Street, W.W. Norton & Company, 2003.
- David G. Luenberger, Investment Science, Oxford University Press, USA, 1997.
- Hull, John C., Options, Futures and Other Derivatives, Pearson Education, 6th edition, 2005.
- Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, 7th edition, 2002.
- Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, Fundamentals of Corporate Finance. McGraw-Hill, 7th edition, 2005.
- Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, Financial Theory and Corporate Policy, Prentice Hall, 4th edition, 2003
- Luthans. F, Doh P. Jonathan, International Management: Culture, Strategy and Behavior, 9th edition.

Chairperson

241/AE/DS206	International Business	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Practical Exam: 50**

Credits: 3 **Practical/ Internal Assessment: 25**

Note For the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The objective of this course is to highlight the international environment, including relationships between business, government, economic groupings and the consumer. The course will also highlight the problems encountered and issues raised in managing overseas business.

Course Outcomes

CO1: Students will be able to describe the different concepts and terms used in the literature of International Business.
CO2: Students will be able to identify the importance of tariffs, theories, modes, foreign exchange market, international organization and strategies.
CO3: Students will be able to illustrate and interpret the macroeconomic changes that affect the international business.
CO4: Students will be able to examine the recent practices followed across functional areas of international business.
CO5: Students will be able to evaluate the strategic alliance, merger and acquisition, joint venture and regulation of international business.
CO6: Students will be able to design international business strategies.

Unit-I

Overview of International Business **Teaching Hours: 12**

International Business: An Overview, Globalisation, Drivers of Globalisation, the Globalization Debate, Governing and Managing of Globalisation, Difference Between Domestic and International Business, International Business Approaches.

Unit-II

Modes of Emerging International Business **Teaching Hours: 12**

Modes of Entry, Exporting, Licensing, Franchising: Contract Manufacturing, Management Contracts, Turnkey Projects, Foreign Direct Investment, Alliances like Mergers and Acquisitions, Joint Ventures, Comparison of Different Modes of Entry.

Chairperson

Unit-III

International Business Environment **Teaching Hours: 12**

International Business Environment: Social, Cultural, Economic, Political, Environment.

Reading List:

- Morris and Oldroyd., International Business, Wiley (An Indian Adaptation by Ram Singh).
- Luthans, P.Doh., International Management: Culture, strategy and Behaviour, Mc Graw Hill(Latest Edition)
- Sundaram, Black., The International Business Environment, Pearson (Latest Edition)
- Korth, Christopher M., International Business Environment and Management, Prentice Hall.
- Ramu, S. Shiva, International Business: Governance Structure, Wheeler Publishing.
- Bhalla, V.K., International Business Environment and Management, Anmol Publications.
- Mithani, D.M., International Economics, Himalaya Publishing House.
- Charles W.L. Hill, International Business, Tata MC Graw-Hill.
- Czinkota, Ronkainen & Moffet, International Business, Thomson, South-Western.
- Daneiels, Radebaugh and Sullivan, International Business, Environments and Operations, Pearson Education.
- V. Sharan, International Business, concept, environment and strategy, Pearson Education

Chairperson

SEMESTER III

241/AE/CC301	International Economics	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

The objective of this course is augmenting the knowledge of students with practices and theories of trade between nations. In addition, it further evaluates the justification usually given for trade restrictions, describes the importance and effects of economic integration and explains the political economy of trade agreements.

Course Outcomes

CO1: Understand, explain, compare and critically evaluate the classical and neo classical trade theories.

CO2: Learn, compare and critically evaluate the new trade theories and their relevance in today's scenario.

CO3: Understand the pattern, scope, potential and related issues of trade in services.

CO4: Understand the theories of protection and develop the ability to appreciate the economic integration and its impacts.

Unit-I

Classical Theories of Trade **Teaching Hours:12**

Mercantilist's views on Trade, Adam Smith's Absolute Cost Advantage theory of trade, Ricardo's Comparative Cost Advantage theory, Extension of Ricardian Model: The Specific Factors Model, Haberler's Opportunity cost theory, Standard Theory of trade: Production function, Community Indifference curve approach and Gains from Trade, Offer curves approach: Trade Indifference curves and Trade offer curves.

Chairperson

Unit-II

Neo-Classical and Modern Theories of Trade **Teaching Hours: 12**

Factor endowments and Heckscher-Ohlin model in competitive factors markets, Stolper-Samuelson Theorem, Rybczynski Theorem and Factor Price Equalization Theorem; Empirical Evidence - the Leontief Paradox, Technology differences in Heckscher-Ohlin model, Adjustment to changes in technology, Posner's Imitation gap theory, Vernon's Product Cycle Theory.

Unit-III

Trade Policy Issues **Teaching Hours: 12**

Free Trade Versus Protectionism - Need for Protection, Tariff and Non-Tariff instruments of Trade Policy, Voluntary Export restraints, Dumping and Antidumping- Countervailing duty, Safeguard actions-Neo Protectionism, Partial Equilibrium Analysis of Trade Policy, General Equilibrium Analysis of Trade Policy, Learner's Symmetry.

Unit-IV

Economic Integration and Development **Teaching Hours: 12**

Types of integration-Customs union, Regional Trading Blocks, Free trade areas, Emerging issues in SAFTA, ASEAN and EU, Multilateralism vs Regionalism, changing role of WTO in International Trade and Development, Developing economies' issues in WTO, India and WTO.

Suggested Readings

- Salvatore, Dominick, International Economics, 6th Edition (1998) Prentice Hall, 11th Edition, John Wiley & Sons.
- Sodersten, Bo and Reed, G. (1994), International Economics, 3rd Edition, Macmillan Press Ltd., London.
- Krugman P.R. and Obstfed D. (1994), International Economics: Theory and Policy. Third Edition. Harper Collins. New York.
- Bhagwati, N. Panagariya, A. and T.N. Srinivasan. (1998). Lectures on International
- Trade, MIT Press.
- Caves, Jones and Frankel (1999), World Trade and Payments, 8th Edition, Addison-Wesley.
- Sawyer, W.C. and Sprinkle R.L. (2003), International Economics, Prentice-Hall of India, New Delhi.
- Suranovic Steven M. (2005), International Trade Theory & Policy Analysis, Http://internationalecon.com
- Hoekman, Mattoo and English (Ed.) (2002), Development, Trade and the WTO – A Handbook, The World Bank, Washington, D.C.

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- Feenstra Robert C (2004), Advanced International Trade- Theory and Evidence, Princeton University Press, Princeton.
- Carbaugh, R.J. (2014), International Economics, 12th Edition, South-Western, USA.
- Barbara Ingham (2015), International Economics, Prentice Hall, England.
- Cherunilam, F. (2016) International Economics, The McGraw-Hill, New Delhi.

Chairperson

241/AE/CC302	Basic Econometrics	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective: The course is designed to impart the learning of principles of econometric methods and tools. This is expected to improve student's ability to understand of econometrics in the study of economics. This course intends to provide a thorough and sound understanding of the essential theoretical base, an introduction into the important and useful techniques of modelling and also an understanding of the broad applications of econometrics.

Course Outcomes:

CO1: Outline the core concepts and methods in Econometrics, particularly related to classical linear regression model.
CO2: Demonstrate the ability to choose appropriate econometric techniques/methods to analyse and evaluate economic theories and models.
CO3: Make use of R Studio to apply the econometric techniques learnt for analysing real world economic/business data and demonstrate the ability to present and interpret empirical results.

Unit-I

Introduction **Teaching Hours: 12**

Nature and Meaning of econometrics, functions of econometrics, essential steps of an empirical study; the simple linear regression model: Ordinary Least Squares (OLS) estimators and their properties; Gauss Markov's theorem.

Unit –II

Multiple linear regression model **Teaching Hours: 12**

Least Squares estimators and their properties; Concept of R square and Adjusted R square; commonly used functional forms, their choice and interpretation of coefficients; testing of hypotheses; testing individual coefficients, testing several coefficients jointly; testing linear combination of coefficients.

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Unit-III

OLS assumption violations **Teaching Hours: 12**

Problems of multicollinearity, autocorrelation and heteroscedasticity; Nature, consequences, test and remedies.

Unit-IV

Dummy Variables **Teaching Hours: 12**

Regression on dummy (qualitative) variables with two categories, with more than two categories-intercept shifters, dummy variable trap, interaction of two categorical variables, Chow test for cross-section data and for time-series data (test structural stability of regression models); The use of dummy variables in seasonal analysis, Qualitative Regression Model; Logit, Probit, Tobit Models.

Suggested Readings

- Berndt, E.R. (1991) "The Practice of Econometrics" Reading, Mass: AddisonWesley,
- Gujrati, Damodar, N. (1995), Basic Econometrics, Mc Graw Hill, New Delhi.
- Intriligator, M., R.G. Bodkin, and C. Hsiaq. (1996), Econometric Models, Techniques and Applications.
- Prentice Hall, Johnson, J. (1984), Econometric Methods. New York: Mc Graw-Hill.
- Kmenta, J. (1986), Elements of Econometrics. New York: Macmillan,
- Krishna, K.L. ((1997) (Ed), Econometric Application in India Oxford University Press, New Delhi.
- Lott, W., and S.C. Ray. (1992), Applied Econometrics: Problems and Data Sets. Fort Worth, Tex: The Dryden Press.
- Maddala, G.S. (1977), Econometrics. Mc Graw-Hill, Inc.
- Ramanathan, Ramu. (2002), Introductory Econometrics with Applications. South Western: Thomson.

Chairperson

241/AE/CC303	Research Methodology	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note for the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course objective

This course aims to provide basic ideas on how to think as a researcher, the various considerations involved in the practice of social research and how these relate to the strategy and design of research.

Course Outcomes

CO1: Understand the research process & design, and explain/design the relevant data collection instruments.
CO2: Identify the research strategies best suited for particular types of research questions and analysis
CO3: Develop the ability to draft and present the complete research process including findings, references etc. under ethical considerations.

Unit I

Research **Teaching Hours: 10**

Meaning and objectives of research, meaning and formulation of hypothesis, theory, models of a theory, testing of theories and models; Methodology versus methods of research: research problem and selection of research problem; review of literature and its role in selecting a research problem;

Unit II

Research Design **Teaching Hours: 14**

Meaning and need for research design: meaning of population, sample and sample size, meaning, types and characteristics of sample design, random and non-random sample, stratified and multi stage random samples, systematic samples.

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Unit III

Data Analysis **Teaching Hours: 12**

Methods of data collection: primary and secondary data sources, brief information about databases of Indian economy, nature of cross section, time series and panel data, diagrammatic and tabular presentation of data, pie chart, bar diagram, histogram, scatter diagram, tracing of curve, one way and two way table

Hypothesis testing: parametric and non-parametric tests of hypothesis; correlation and regression analysis.

Unit- IV

Report Writing **Teaching Hours: 12**

Meaning, structure, types and importance of report writing, guidelines for effective report writing, Plagiarism and Ethical Issues in Research

Suggested Readings

- Ary, D., Jacob, L.C & Sorensen, C.(2010). Introduction to research in education, 8th 5th International edition: USA. Wadsworth Cenage Leaning
- Best, J. W. & Kahn J. V. (2005). Research in Education, New Delhi: Prentice Hall.
- Burns, R.B. (1991) Introduction to Research in Education, New Delhi: Prentice Hall.
- Good, C.V. & Douglas, E. S. (1954). Methods in Social Research, New York: Mc Graw Hill.
- Kerlinger, F.N. (1973). Foundation of Behavioral Research, New York: Holt Rinehart and Winston
- Koul, L. (1988). Methodology of Educational Research, New Delhi, Vikas Publications.
- Neuman, W.L. (1997) Social Research Methods: Qualitative and Quantitative Approaches, Boston: Allyn and Bacon.
- Cohen, L. & Lawrence, M. (1980). Research methods in education, London: Groom Helm

Chairperson

241/AE/DS304	Money Markets	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Objectives

The objective of this paper is to introduce students to role and functioning of money markets- Indian and International- financial markets and financial products that are traded in such financial markets and institutions associated with financial markets.

Course Outcomes

CO1**:** Introduce students to the fundamental concept of money, role of money market and financial institutions.

CO2**:** Examine the characteristics, valuation, and trading of Indian money market and debt market, including government bonds and corporate bonds.

CO3**:** Explore the unique challenges and opportunities presented by financial markets in emerging economies.

Unit I

Money Market: Introduction **Teaching Hours:11**

Functions of Money, Kinds of Money, Interest Rates and Return, Traditional Monetary Aggregates, New Monetary Aggregates, Velocity of Money, Monetary Base, Credit Multiplier, Money Multiplier Money Market: Meaning, role and participants in money markets, Segments of money markets. Role of financial markets and institutions.

Unit II

Money Market and Debt Market in India **Teaching Hours:13**

Money Market: Meaning, role and participants in money markets, Segments of money markets, Call Money Markets, Repos and reverse Repo concepts, Treasury Bill Markets, Certificate of Deposit and Commercial Paper. Debt Market: Introduction and meaning, Primary Market for Corporate Securities in India: Issue of Corporate Securities, Secondary market for

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government/debt securities (NDS-OM), Auction process, Corporate Bonds vs. Government Bonds.

UNIT III

International Money Market **Teaching Hours:12**

International Bond Markets - Introduction, New Issue Procedures in the Eurobond Markets, Eurobond Valuation and Hedging, Interest Rates and Currency Swaps, Euro-currency Market, Euro banking and Euro currency Centers, Term Structure of Euro-currency Rates, Euro- currency Futures and Options, Syndicated Euro-credits.

Suggested Readings:

- L M Bhole and Jitendra Mahakud, Financial Institutions and Markets, Tata McGraw-Hill, 2009.
- F S Mishkin, The Economics of Money, Banking, and Financial Markets, Prentice Hall, 2007.
- S B Gupta, Monetary Economics, S Chand Limited, 1988.
- RBI Bulletin, www.rbi.org
- F. J. Fabozzi, F. Modigliani, F. J. Jones, M. G. Ferri, *Foundations of Financial Markets and Institutions*, Pearson Education, 3rd edition, 2009.
- M. R. Baye and D. W. Jansen, *Money, Banking and Financial Markets*, AITBS, 1996.

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241/AE/DS304	Financial Derivatives	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The objective of this course is to impart knowledge of financial derivatives and risk mitigating techniques.

Course Outcomes

CO1: Understand the risk and return relationship and compute yields of bond portfolio.
CO2: Understand and apply the portfolio construction, and asset pricing.
CO3: Understand and apply the fundamental and technical analysis, and efficiency tests of stock markets.
CO4: Understand the concept and valuation of derivatives and design hedging strategies.

Unit-I

Financial Derivatives **Teaching Hours: 10**

Meaning, types, uses and factors driving the growth of derivatives. Forward Contracts v/s Future Contracts. Types of Traders: Futures Markets and the use of Futures for Hedging.

Unit-II

Future Payoffs **Teaching Hours: 13**

Long futures and short futures. Pricing stock futures: with dividend and without dividend. Application of futures: Hedging, Speculation and Arbitrage. Currency Futures: Meaning, uses and contract details. Interest Rate Futures: Meaning, uses and contract details.

Unit-III

Stock Options **Teaching Hours: 13**

Meaning, types and uses. General factors affecting stock option price. Black Scholes Option Model and Binomial model. Option based investment strategies-bullish, bearish, straddle, strangle and butterfly.

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Suggested Reading

- Brennet, M., Option Pricing: Theory & Applications. Toronto, Lexington Books.
- Cox, John C and Rubinstein, Mark Options Markets. Englewood Cliffs, Prentice Hall Inc.
- Huang. Stanley S C and Randall, Maury R., Investment Analysis and Management, Allyn and Bacon.
- Hull. John C. Options, Futures and Other Derivative Securities, PHI.
- Sharpe. William F. et al., Investment, Prentice Hall of India.

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241/AE/DS306	Financial Regulations and Supervision	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The course objectives are designed to provide students with a comprehensive understanding of the principles, practices, and regulatory frameworks governing the financial industry. This course typically focuses on how financial institutions are regulated and supervised to ensure stability, transparency, and consumer protection within the financial system.

Course Outcomes

CO1: Introduce students to the basic ideas, functions, and significance of financial regulation and supervision in preserving a sound and effective financial system.

CO2: To improve the efficiency, stability, inclusiveness, and transparency of a country's financial system.

CO3: To introduce the important regulatory organizations—domestic and international—that govern various financial industry sectors (such as banking, securities, and insurance) and the legal frameworks they uphold.

Unit – I

Financial Regulation **Teaching Hours: 10**

Asymmetric information and the rationale for regulation of financial institutions and market, financial market fragility, Evolution of regulatory policies; Cross country Experiences.

Unit-II

Financial Sector Reforms **Teaching Hours: 12**

Banking sector reforms-phase -phase out of statutory precyton interest rate deregulation etc.- Indian capital market integration, foreign institutional investors, impact of exchange rate variability in a liberalized regime, Issues of GDRs, ADRs

Functions & Working of Regulatory Agencies in India: SEBI, IRDA and PFRDA.

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Unit-III

Banking Regulation and BIS **Teaching Hours: 15**

Banking regulation act 1949, financial stability, banking regulation; Basel norms- Capital Adequacy, Income recognition; provisioning; statuary reserve requirement, CAMELS; liquidity risk and contagion market discipline: issues and evidence market discipline in emerging economies: beyond bank fundamentals; conduct of monetary policy.

Suggested Readings

- Fabozzi, Frank, Modigliani, Franco, Jones, Frank (Feb 2009), Foundations of Financial Markets and Institutions, International Edition, 4th Edition, Pearson Higher Education.
- Mishkin, Frederic S. Find all the books, read about the author, and more.
- Eakins, Stanley G. (2005), Financial Markets and Institutions (5th Edition), Addison Wesley.
- Howells, Peter, Bain, Keith (2007), Financial Markets and Institutions, 5th Edition.
- Madura, Jeff (2008), Financial Markets and Institutions, 8th edition, Thomson Publications.
- Kidwell, David, Blackwell, David W., Whidbee, David A. et.al. (2008) Financial Institutions, Markets, and Money, 10th Ed., John Wiley & sons.
- Barth, James R., Caprio, Gerard, and Levine, Ross (2008), Bank Regulations are Changing: For Better or Worse?, Association for Comparative Economic Studies.
- Goldstein, Morris (2006), Financial Regulation after the Subprime and Credit Crisis, Washington: Peterson institute.
- Wymeersch, Eddy (2006), The Structure of Financial Supervision in Europe: About Single, Twin Peaks and Multiple Financial Supervisors, Social Science Electronic Publishing, Inc.

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241/AE/DS307	Economics of Insurance	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Objective

Through this course student will be able understand the various insurances and interrelationship between the Insurance and risk management Sector. It will also enable students to analyze and obtain insights into the practical working of the Insurance Sector.

Course Outcomes

CO1: Understand the concept of insurance and how it is used to cover risk.
CO2: Explain the relationship between insurers and insured and the importance of insurance contracts.
CO3: Understand meaning and consequences of asymmetric Information and its application in insurance sector.

Unit-I

Introduction **Teaching Hours: 10**

Introduction to insurance; the evolution and growth of Life Insurance nature and scope of insurance, various types of insurance; Principles of insurance; important insurance policies in life and non-life insurance; leading Insurance companies in India

Unit-II

Life Insurance **Teaching Hours: 12**

Types of Life Insurance Policies: Term Life Insurance, Whole Life insurance, Endowment Life Insurance, Unit Linked Policies with or without Profit Policies; Customer Evaluation; Policy Evaluation; Cost and Benefit: Group and Pension Insurance Policies; Special features of Group Insurance.

Unit-III

Insurance Sector **Teaching Hours: 14**

Establishment of IRDA and its role in insurance sector in India; Liberalisation of insurance industry in India; insurance business operations, Concept and implications of bancassurance and

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universal banking in India. Introduction to fire insurance; basic understanding of motor car insurance; fundamental of marine insurance; contemporary issues in Indian insurance industry.

Suggested Readings:

- Black, Jr. Kenneth and Harold Skipper Jr., Life and Health Insurance, Prentice Hall, Inc., England.
- K.C. Mishra and C.S. Kumar, Life Insurance: Principles and Practice, Cengage Learning, New Delhi.
- Gaungully, Ashok, Insurance Management, New Age Publishers, New Delhi.
- Karam Pal, Bodla, B.S. and Garg, MC, Insurance Management, Deep & Deep Publications, New Delhi.
- Kanika Mishra, Fundamentals of Life Insurance: Theories and Applications, PHI, New Delhi.
- Kutty, S.K., Managing Life Insurance, Prentice Hall of India: New Delhi

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241/AE/DS308	International Marketing	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Objectives:

The course aims at exposing the students to the global business activities, marketing in international business and global forces transforming the international business today. The course would develop a general perspective about managing international business both in operational as well as strategic context.

Course Outcomes:

CO1: Develop an understanding of and an appreciation for basic international marketing concepts, theories, principles, and terminology.

CO2: To demonstrate an awareness and knowledge of the impact of environmental factors (cultural, economic, institutional, legal and political) on international marketing activities.

CO3: Develop a global marketing strategy by applying the basic concepts of product pricing, promotion, and channels of distribution in international settings.

Unit–I

International Marketing **Teaching Hours: 14**

Meaning, Nature and Importance; International Marketing Orientation: E.P.R.G. – Approach: An overview of the International Marketing Management Process; International Marketing Environment. International Market Segmentation and Positioning; Screening and Selection of Markets; International Market Entry Strategies: Exporting, licensing, Contract Manufacturing, Joint Venture M & A, Setting-up of Wholly Owned Subsidiaries Aboard, Strategic Alliances.

Unit–II

International Product and Pricing Strategies **Teaching Hours: 12**

Product Designing: Product Standardization Vs. Adaptation; Managing Product Line, International Trade Product Life Cycle, New Product Development; Pricing for International Markets: Factors Affecting International Price Determination; Price Quotations and Terms of Sale.

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Unit–III

Emerging Trends in International Marketing **Teaching Hours: 10**

Regionalism v/s Multilaterism; Trade Blocks; Important Grouping in the World; Legal Dimensions in International Marketing (Role of WTO); Marketing Research for Identifying Opportunities in International Markets.

Suggested Readings:

- Cateora PR and Graham JL (2009). International Marketing. Boston: McGraw Hill/ Irwin.
- Czinkota M. R. and Ronkainen (2010). International Marketing. Cin OH: South-Western Cengage Learning.
- Hollis, N (2008). The Global Brands. NY: Palgrave Macmillan.
- Johansson, J.K. (2009). Global Marketing. NY: McGraw Hill.
- Keegan W.J. and Green M.C. (2005). Global Marketing. Upper Saddle River: Prentice Hall.
- Onkvisit S and Shaw JJ (2009). International marketing: Strategy and Theory. NY: Rutledge.
- Rajagopal (2007). International Marketing. New Delhi: Vikas publishing.
- Terpstra, Vern and Sarathy, Ravi (2000). International Marketing. The Dryden Press, Chicago
- Kotabe Masaaki and Helsen Kristiaan (2nd Edition, 2001). Global Marketing Management. John Wiley & Sons (Asia) Pte Ltd.
- Varshney, R. L. and Bhattacharya, B. (2001). International Marketing: An Indian Perspectives. Sultan Chand, New Delhi.

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241/AE/DS309	Capital Flows in Financial Markets	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The main objective of the course is to provide students with a comprehensive understanding of the structure, functioning, and dynamics of global financial markets. This course typically explores how various financial instruments are traded, valued, and regulated on an international scale.

Course Outcomes

CO1: Introduce students to the fundamental concepts, participants, and instruments that make up the international financial markets landscape.

CO2: Examine the characteristics, valuation, and trading of international bonds, including government bonds, corporate bonds, and sovereign bonds.

CO3: Explore various types of international capital markets

CO4: Explore the unique challenges and opportunities presented by financial markets in emerging economies.

Unit-I

Introduction **Teaching Hours: 12**

Globalisation and the Growth of Derivatives, Euro-currency Market, Euro banking and Euro currency Centres, Term Structure of Euro-currency Rates, Euro-currency Futures and Options, Syndicated Euro-credits.

Unit-II

International Bond and Capital Markets **Teaching Hours: 12**

Introduction, New Issue Procedures in the Eurobond Markets, Eurobond Valuation and Hedging, Interest Rates and Currency Swaps.

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Capital market

New Instruments in International Capital Markets, International Banking, International Portfolio Diversification

Unit-III

Multilateral agencies **Teaching Hours: 12**

International Development banks such as World bank, IFC and others, Regional Development Banks such as Asian Development bank and others, bilateral agencies.

Suggested Readings:

- Buckley, Adrian, Multinational Finance, Englewood Cliffs, Prentice Hall Inc.
- Eiteman, David K. & Stonehill, Arthur 1, Multinational Business Finance, Addison-Wesley.
- Johnson &Giaccott, Options and Futures. S1 Paul, West.
- Kim, Suk & Kim, Seung, Global Corporate Finance: Text and Cases, Miami.
- Shapiro, Alan C., Multinational Financial Management, Prentice Hall of India.

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241/AE/DS310	Foreign Trade Procedures and Documentation	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Objective:

The objective of the paper intends to provide knowledge to the students on the basic issues relating to foreign trade procedure, practices and documentation.

Course Outcomes:

CO1: It imparts knowledge on foreign trade procedure and documentation.
CO2: It gives the details of the importance of exports determinants and schemes in India.
CO3: It provides the guidelines for international business negotiations.
CO4: It defines the nature and pattern of registration of exporters and importers and related concepts.

Unit-I

Foreign Trade Documentation **Teaching Hours: 10**

Meaning, Need for Documentation, Types of documents – Commercial Documents, Regulatory Documents, Documentation for Transportation. Document related to Excise clearance, Documents related to customs clearance, Documents related to foreign exchange clearance, Documents related to transportation and procedures. Aligned Documentation System, Benefits of Aligned Documentation System.

Unit-II

Foreign Trade Procedures **Teaching Hours: 12**

The Search for an overseas buyer, Appointing Sales Agents Abroad, Registration of Exporters, Importers, Processing an Export Order, Negotiation of Documents. Custom Clearance of Import and Export Cargo: Clearance of Import Cargo, Clearance of Export cargo, Custom Valuation, The Harmonized System, Carnets, New Developments in Custom Clearance Procedure. Quality Control and Pre shipment Inspection: Labelling, Marking, Packing and Packaging. Planning Physical Distribution, Critical Elements of a Logistics System, International Transport System, Benefits of Efficient Logistics System, Concept of Marketing Logistics System.

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Unit-III

Foreign Trade Promotion **Teaching Hours: 14**

EXIM Business Plan and Strategy, Export Strategy Formulation, Import Strategy (Souring Strategy), International Export Marketing. Information Technology in International Business: Electronic Procurement, Electronic Marketing, Electronic Logistics. Electronic Data Interchange (EDI) – Meaning and role of EDI in international trade. Export Incentive Schemes: Duty Exemption Scheme, Duty Remission Scheme, Export Promotion Capital Goods Scheme, Special Economic Zones. Foreign Trade Institutions: Export Promotion Councils, Commodity Boards, FIEO, IIFT, EOUs, ITPO, ECGC, EXIM Bank

Suggested Readings

- C. Rama Gopal –Export Import Procedure, Documentation and Logistics– New Age Publications
- Usha Kiran Rai –Export, Import and Logistics Management– PHI learning Pvt. Ltd.
- M.I. Mahajan –Foreign Trade Procedures and Documentation– Snow White Publishers.
- P. K. Khurana –Export Management – PHI learning Pvt. Ltd.
- M. D. Jitendra, Export Procedures and Documentation, Rajat Publications.
- Pervin Wadia, Export Markets and Foreign Trade Management, Manishka Publications.
- Paras Ram, Export: What, Where and How, Anupam, Publications.
- Government of India, Handbook of Import - Export Procedures.
- Nabhi's Exporters Manual and Documentation.
- Nabhi's New Import-Export Policy Procedures.

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241/AE/DS311	India's Foreign Trade and Policy	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Objective:

The Objectives of this paper is to understand the relevance of India's foreign trade policy and practices in growth and development perspectives. This will enable to students to study the core aspects of the India's foreign trade policy and its related concepts.

Course Outcomes:

CO1: It studies the Merchandise India's trade with rest of the countries and the concepts related to exports and imports.
CO2: It makes the students to gain knowledge on India's foreign trade and its progress.
CO3: It understands various measures of import liberalization in India.
CO4: It gives clear picture about the India's services export and its associated concepts.

Unit - I

India's Foreign Trade **Teaching Hours:10**

Recent Trends, and Directional Pattern in the Global Context, Objectives of foreign trade policy, Structure and Equilibrium of India's Balance of Payments, Major exports and imports, Prohibited and restricted items.

Unit – II

Schemes **Teaching Hours:12**

Remission of Duties and Taxes on Export Products (RoDTEP), Service Exports from India Scheme (SEIS), export promotion capital goods (EPCG) scheme, schemes for exporters of gems and jewellery, Duty exemption / remission schemes: Duty Free Import Authorisation scheme (DFIA), deemed exports.

Unit - III

Zones of Trade **Teaching Hours:14**

Special Economic Zones, Agriculture Export Zones, Export Oriented Units electronics hardware technology parks (EHTPS), software technology parks (STPS) scheme and bio-technology parks (BTPS), Ministry of Commerce, organisation and Role of DGFT in India's trade policy.

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Suggested Readings:

- Foreign trade policy [1st April, 2015 – 31st March, 2020]
- Datt, Ruddar and Sundaram, K.P.M., Indian Economy, S.Chand & Co. New Delhi.
- Mishra and Puri, Indian economy, Himalaya Publishing House.
- Export-Import Policy, Nabhi Publications.
- Paras Ram, Export, What, Where & How, Anupam Publications.
- Bhalla, V.K., International Business Environment and Management, Anmol Publications.

Chairperson

SEMESTER IV

241/AE/CC401	Economics of Growth & Development	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Unit I

Concepts & Measurement of Economic Development **Teaching Hours: 12**

Economic growth, Economic development, Inclusive Growth and Sustainable development; MDGs and SDGs.

Measuring Development: Income Measures, Basic Needs Approach, PQLI, HDI and Capabilities Approach; Goulet's core values of development. Poverty, Inequality and Development: Measurement, Impact and Policy options.

Unit II

Theories of Growth and Development **Teaching Hours: 12**

Contributions of Adam Smith, Ricardo, Karl Marx, Schumpeter and Rostow's Theory, Harrod and Domar: Instability of equilibrium; Solow and Joan Robinson Model.

Approaches to Development: Balanced and Unbalanced Growth; Critical Minimum Efforts Theory; Low Income Equilibrium Trap; Dual Economy: Models of Lewis, Fei-Ranis, Jorgensen

Unit III

New Growth Theory **Teaching Hours: 12**

Production Function Approaches: Learning by Doing; Total Factor Productivity; Ramsay's rule and optimal saving; Golden Rule of Accumulation; Technical Progress: Hicks and Harrod; Endogenous Growth Models (Romer, Uzawa-Lucas, AK).

Unit IV

Emerging Issues in Development **Teaching Hours: 12**

Role of financial Institutions in economic development: Theory (Acemoglu and Zilibotti Model) and Evidence. New Institutional Economics: Role of Market, State and Civil Society; Post 2015 Development Agenda: Impasse in Development Studies and the Alternatives to the Impasse.

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Suggested Readings

- Adelman, I. (1961). Theories of Economic Growth and Development, Stanford University Press, Stanford.
- Barro, R. J. & Sala-i-Martin, X. (2004). Economic Growth. MIT Press.
- Behrman, S. & Srinivasan, T.N (Eds.).(1995). Handbook of Development Economics, Vol. 3. Elsevier, Amsterdam.
- Brown, M. (1966). On the Theory and Measurement of Technical Change. Cambridge University Press, Cambridge.
- Chakravarti, S. (1982). Alternative Approaches to the Theory of Economic Growth. Oxford University Press, New Delhi.
- Chenery, H. & Srinivasan, T.N. (Eds.) (1989). Handbook of Development Economics, Vol. 1 & 2. Elsevier, Amsterdam.
- Ghatak, S. (1986). An Introduction to Development Economics. Allen and Unwin, London.
- Gillis, M., Perkins, D.H., Romer, M. & Snodgrass, D.R. (1992). Economics of Development. W.W. Norton, New York.
- Higgins, B. (1959). Economic Development. W.W. Norton, New York.
- Jones, H.G. (1975). An Introduction to Modern Theories of Economic Growth. Nelson, London.
- Kindleberger, C.P. (1977).Economic Development. McGraw Hill, New York.
- Meier, G.M. & Rauch, J.E. (2005).Leading Issues in Economic Development. Oxford University Press, New Delhi.
- Meier, G.M. & Rauch, J.E. (2005).Leading Issues in Economic Development. Oxford University Press, New Delhi.
- Menard, C. & Shirley, M.M. (2008). Handbook of New Institutional Economics. Springer Science & Business Media.
- Schultz, Paul T. & Strauss, J. (Eds.). (2008). Handbook of Development Economics, Vol. 3. Elsevier, Amsterdam.
- Sen, A.K. (Ed.). (1990). Growth Economics. Penguin, Harmondsworth.
- Thirlwal, A.P. (1999). Growth and Development. Macmillan, U.K.
- Todaro, M.P. & Smith, S.C. (2003). Economic Development. Pearson Education, Delhi.

Chairperson

241/AE/CC402	Advanced Econometrics	L	T	P	C
		4	0	0	4

Max. Marks: 100 **Written Exam: 70**

Credits: 4 **Internal Assessment: 30**

Note For the paper Setter

1. Nine Questions will be set in all and students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining eight questions, students will attempt 1 out of 2 questions from each of the four units (14 marks each).

Course Objectives

The objective of this course designed to disseminate the applications of advanced econometrics techniques. By the end of the course, students should be able to develop econometric models and interpret the econometric and statistical results reported in other studies.

Course outcomes

CO1: To equip the students with basic understanding of pooled data models and time series analysis.

CO2: To be able to estimate the various forecasting models and apply various tests.

CO3: Students will be able to estimate the long run and short run relationship between the economic variables

CO4: Students will be able to check the direction of causality among the variables.

Unit-I

Dynamic Econometric Models **Teaching Hours: 12**

Auto-regressive and Distributed lag models: lagged independent variables, impact multiplier, interim multiplier, and long-run multiplier, Koyck approach, partial adjustment model, adaptive expectation model, Estimation of Auto- regressive models; Granger Causality Test.

Unit –II

Simultaneous equation models **Teaching Hours: 12**

The Simultaneous equation bias and inconsistency of OLS estimators; structural and reduced form of simultaneous equation models; identification problem; estimation procedures; indirect least squares (ILS), instrumental variables (IV), and two stage least squares (2SLS).

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Unit-III

Time series Econometrics **Teaching Hours: 12**

Key concepts - stochastic process; stationary and non-stationary process, purely random process, Random walk models co-integration, integrated variables,
Deterministic and stochastic trends and unit root. Techniques of forecasting - ARMA, ARIMA Models, Box-Jenkins methodology.

Unit-IV

Modeling Economic Time Series **Teaching Hours: 12**

Trends and Volatility: ARCH process, GARCH model, ARCH-M model; Dicky-Fuller tests, Augmented Dicky-Fuller test, Phillips Perron test. Introduction to VAR model, estimation and identification in time series analysis.

Panel Data Models: Pooled OLS; Random Effects Model; Fixed Effects Model.

Suggested Readings

- Berndt, E.R. (1991) "The Practice of Econometrics" Reading, Mass: AddisonWesley,
- Gujrati, Damodar, N. (1995), Basic Econometrics, Mc Graw Hill, New Delhi.
- Intriligator, M., R.G. Bodkin, and C. Hsiaq. (1996), Econometric Models, Techniques and Applications.
- Prentice Hall, Johnson, J. (1984), Econometric Methods. New York: Mc Graw-Hill.
- Kmenta, J. (1986), Elements of Econometrics. New York: Macmillan,
- Krishna, K.L. ((1997) (Ed), Econometric Application in India Oxford University Press, New Delhi.
- Lott, W., and S.C. Ray. (1992), Applied Econometrics: Problems and Data Sets. Fort Worth, Tex: The Dryden Press.
- Maddala, G.S. (1977), Econometrics. Mc Graw-Hill, Inc. Page 38 of 41
- Ramanathan, Ramu. (2002), Introductory Econometrics with Applications. South Western: Thomson.

Chairperson

241/AE/DS403	Capital Markets	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course Objectives

Capital Market course aims to equip the participants with necessary theoretical knowledge and practical application on stock markets so that students can apply the same in researching equity markets for wealth creation. It aims in simplifying finance and is a total value for money which provides a complete horizon on various aspects of capital market jargons.

Course Outcomes

CO1**:** Basic understanding of the concept of Capital Market.

CO2: Understand the basic features of Indian Capital Market and its regulatory framework.

CO3: Role of OTCEI in Indian Capital Market and the electronic stock exchange system.

UNIT I

Introduction **Teaching Hour:12**

Financial markets – Definition, Role, Functions, Constituents; Financial Instruments, Indian Financial Market, Global Financial Market, Capital Market: Evolution and growth, Constituents, Capital Market Instruments, Types, Preference shares, Equity Shares, Non - voting equity shares, Company fixed deposits, Warrants, Debentures and Bonds, Global Debt Instruments.

Unit II

Indian Capital Market & Its Regulation **Teaching Hour:13**

Meaning, Functions, Intermediaries, Role of Primary Market, Methods of floatation of Capital, Abuses in New Issues Market, Problems of New Issues Market, IPO's, Investor Protection in Primary Market, Recent Trends in Primary Market, Regulatory Framework - Committees on Regulatory Framework; SEBI: Objectives, Management, Powers and Functions, Regulatory role: Investor Protection, Insider Trading, Rationale, Insiders, Insider information, Connected persons.

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UNIT III

Over The Counter Exchange Of India (OTCEI) **Teaching Hour:11**

Concept, Features, Benefits OTCEI Vs Other Stock Exchanges; Depository Services, Banks Vs Depository, Demat Account, Electronic Settlement of Trade, Role of CDSL and NSDL; Speculation, Online Stock Trading; Debt Market: Types, Role, Price Determination.

Suggested Readings:

- Capital Markets, Financial Management, and Investment Management and Analysis, Second Edition by Frank J. Fabozzi and Capital Markets, Financial Management, and Invest
- Capital market in India by Rajesh Chakarbati published by Sage Publication (First Edition)
- Gurusamy, Capital Markets, Vijay Nicole Imprints, 2014, Chennai.
- Frank J. Fabozzi, Franco Modigliani, Capital Markets Institutions and Instruments Prentice Hall. 2000. New Delhi.
- Mahesh Kulkami & Dr Suhas Kulkami. Capital Markets and Financial Services, Nirali Publications, 2001, Mumbai.
- Rajesh Chakraborthy, Sankar D.E, Capital Markets in India, Sage Publications, 2011, New Delhi

Chairperson

241/AE/DS404	Empirical Methods in Finance	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The main objective of the course is to provide students with a strong foundation in using empirical research techniques to analyze financial data and draw meaningful insights. This course typically focuses on applying statistical and econometric methods to real-world financial data sets.

Course Outcomes

CO1: To Investigate market efficiency and anomalies by analyzing historical financial data and testing hypotheses related to stock returns and market trends.
CO2: To study behavioural biases and anomalies in financial market.
CO3: To study behavioural biases and anomalies in corporate finance
CO4: Understand economic data, geopolitical events, regulatory changes, and technological advances that affect investors' decisions.

Unit I

Information Perception Cognitive Information **Teaching Hours: 14**

Perception, peculiarities (biases) of quantitative and numerical information perception, Weber law, subjective probability, representativeness, anchoring, asymmetric perception of gains and losses, framing and other behavioral effects.
Human Preferences and Market efficiency Decision-making under risk and uncertainty, decision-making in historical prospective.

Unit II

Behavioral Factors & Financial Markets **Teaching Hours: 10**

Fundamental information and financial markets, market predictability, the concept of limits of arbitrage, asset management and behavioral factors, active portfolio management: return statistics and sources of systematic underperformance, technical analysis and behavioral factors

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Unit III

Behavioral Factors and Corporate Finance **Teaching Hours: 12**

Behavioral factors and corporate decisions on capital structure and dividend policy, capital structure dependence on timing of good and bad corporate news announcement, mergers and acquisitions: the Winner's curse and market timing, systematic excessive optimism and overconfidence in managers' decisions, company name and its market value, sunk costs and mental accounting, evolutionary explanations for behavioral effects, evidence from behavioral game theory, systematic approach to using behavioral factors in corporate decision-making

Reading List:

1. Plous, S., The Psychology of Judgment and Decision Making, McGraw-Hill, 1993
2. Shleifer, A., Inefficient Markets: An Introduction to Behavioral Finance, Oxford University Press, 2000
3. Shefrin, H., Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing, Oxford University Press, 2006
4. Prechter, R. R. (Jr.) and P. M. Kendall, Pioneering Studies in Socioeconomics, New Classics Library, 2003

Chairperson

241/AE/DS405	Risk Management: Theory and Practice	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The objective of this course is to provide a comprehensive introduction to the study of management. It provides an insight into contemporary knowledge, time tested principles, basic concepts, evolving theories and practices in the field of risk management.

Course Outcomes

CO1: Students will gain the necessary insights into the planning activity and the dynamics of decision making.
CO2: Analyse the structure of a risk management and understand the principal elements of the organisation in executing its practices.
CO3: Students gains good amount of knowledge regarding risk management.

Unit-I

Introduction to Risk Management **Teaching Hours: 10**

Sources of risk, currency risk, fixed income risk, equity risk, commodity risk, market risk measurement, VaR as downside risk, definition, parameter, elements of VaR system, stress testing.

Unit -II

VaR Methods and Hedging **Teaching Hours: 12**

An overview of VaR methods, VaR local and full valuation, delta normal methods, historical simulation, Monte Carlo simulation, examples of VaR applications.

Hedging

Hedging liner risk, optimal hedging, hedge ratio as regression coefficient, duration hedging, beta hedging, non-linear risk hedging, delta and dynamic hedging

Unit-III

Credit Risk Management **Teaching Hours: 14**

Settlement risk, introduction to credit risk, measuring credit risk, credit exposure, types of credit derivatives, credit default swap, pricing and hedging credit derivatives, measuring credit VaR, credit risk models, Basel accord, the Basel market risk charges.

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Suggested Readings:

- Crouhy, M., Galai, D., & Mark, R. (2014). *The essentials of risk management* (2nd ed.). McGraw-Hill Education.
- Lam, J. (2014). *Enterprise risk management: From incentives to controls* (2nd ed.). Wiley.
- Hopkin, P. (2018). *Fundamentals of risk management: Understanding, evaluating and implementing effective risk management* (5th ed.). Kogan Page.
- Hubbard, D. W. (2020). *The failure of risk management: Why it's broken and how to fix it* (2nd ed.). Wiley.
- Aven, T. (2015). *Risk analysis* (2nd ed.). Wiley.
- Bessis, J. (2015). *Risk management in banking* (4th ed.). Wiley.
- Jorion, P. (2007). *Value at risk: The new benchmark for managing financial risk* (3rd ed.). McGraw-Hill Education.
- Power, M. (2007). *Organized uncertainty: Designing a world of risk management*. Oxford University Press.
- Choudhry, M. (2013). *An introduction to banking: Liquidity risk and asset-liability management* (2nd ed.). Wiley.
- McNeil, A. J., Frey, R., & Embrechts, P. (2015). *Quantitative risk management: Concepts, techniques, and tools* (Revised ed.). Princeton University Press.

Chairperson

241/AE/DS406	Operations Research Techniques	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

Operations research aims to introduce students to use quantitative methods and techniques for effective decisions–making; model formulation and applications that are used in solving business decision problems.

Course Outcomes

CO1: Learn about the origin, definition and scope of operations research, formulation and solution of linear programming problems by different methods.

CO2: Understand the transportation and assignment problems and their solutions by different methods.

CO3: Knowledge of different queuing models and their solutions by single and multiple servers.

CO4: Learn about the different inventory control models.

Unit-I

Operations Research **Teaching Hours: 12**

Origin, definition and its scope, Linear Programming: Formulation and Solution of linear programming problems by Graphical and Simplex methods, Big - M and Two-phase methods, Degeneracy, Duality in linear programming.

Unit-II

Transportation Problems **Teaching Hours: 12**

Basic Feasible Solutions, Optimum solution by stepping stoneand modified distribution methods, unbalanced and degenerate problems, trans-shipment problem. Assignment problems: Solution by Hungarian method, unbalanced problem, case of maximization, travelling salesman and crew assignment problems.

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Unit-III

Queuing and Inventory Control Models **Teaching Hours: 12**

Basic components of a queuing system, General birth-death equations, steady-state solution of Markovian queuing models with single and multiple servers (M/M/1, M/M/C, M/M/1/k, M/M/C/k).

Economic order quantity (EOQ) model with uniform demand and with different rates of demands in different cycles, EOQ when shortages are allowed, EOQ with uniform replenishment, Inventory control with price breaks.

Reference Books:

- F. Hillier and G.J. Lieberman, Introduction to Operation Research, Holden Day,1990.
- H. A. Taha, Operation Research-An Introduction, Printice Hall of India, 2017.
- J.K. Sharma, Mathematical Model in OperationS Research, Tata McGraw Hill,1989.
- Kanti Swaroop, P.K. Gupta, Man Mohan, Operations Research, Sultan Chand and Sons, 2010.
- N.S.Kambo, Mathematical Programming Techniques, McGraw Hill, 2008.
- P. K. Gupta, and D.S. Hira, Operations Research, S. Chand & Co., 1976.
- S. D. Sharma, Operation Research, Kedar Nath Ram Nath Publications, 2009.

Chairperson

241/AE/DS407	International Logistics	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the four units (12 marks each).

Course objective

It aims to perceive the students the international logistics management and implementations and documentations of international trade. Within this scope, it has been targeted to introduce various sub concepts collectively through the baseline of international logistics and global marketing along with the processes for the entities of foreign trade management to enable students to understand the effects of the international logistics on international economy and relations.

Course Outcomes

CO1: Provide a framework of knowledge, theory and understanding relative to international logistics and supply chain management and to examine appropriate strategies for successful operation in the 21st century.
CO2: Embrace the thinking of global logistics systems and minor league international logistics operators as they implement policies to secure global supply chain development.
CO3: Learner can identify and place into practice information-based decision making approaches to logistic problems with regards to operational grounding.

Unit – I

Introduction **Teaching Hours: 12**

Concept, objectives and scope; logistics interface with marketing; Logistics System elements, Relevance of International logistics, logistics as a strategic resource, Principles for logistics excellence.

Unit - II

Structure of Shipping Industry **Teaching Hours: 12**

General Structure of Shipping Industry: Characteristics, liner and tramp operations; Liner conferences; Freight structure and practices; chartering principles; UN convention on shipping.

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Unit- III

Transportation **Teaching Hours: 12**

Developments in Ocean Transportation: Containerization: Inland container depots; Multi-modal transportation and CONCOR; Highlights of the Multi-modal Transport of Goods Act 1993, Role of intermediaries including freight forwarders, Shipping agents, freight brokers and Stevedores.

Suggested Readings:

- Annual Reports, INSA.
- Annual Reports, CONCOR.
- Bowersox, Dhohld J.and Closs David J., Logistical Management, Tata McGraw-Hill
- Coyle, Bard and Langley, The management of Business Logistics, Thomson.
- Pierre Davd, International Logistics, Biztantra.
- Bloomberg David J., Stephan Lemay& Joe B. Hanna., Logistic, PHI.
- Shipping Documents and Reports, UNCTAD.
- Krishnaveni, M., Logistice Management and World Seaborne Trade, Himalaya Publishing House, New Delhi.

Chairperson

241/AE/DS408	Capital Markets & Risk Management	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The objective of the course is to introduce state of the art tools necessary for planning, executing and maintaining risk management in today's environment.

Course Outcomes

CO1: To identify and explain risk management in international business environments.
CO2: Illustrate an awareness of ethical issues in international business.
CO3: Explain and apply risk management frameworks when operating in global business environments.

Unit-I

Introduction **Teaching Hours: 10**

The concept of risk, Benefit of risk management, Country risk analysis, Cultural diversity and Multi National Corporations.

Unit-II

Financial risk **Teaching Hours: 14**

Financial risk management, Management of credit risk, Political risk and its management. Foreign Exchange Risk Management

Risk management

Risk management through derivative: Swaps Forwards, Futures, Options, Option prices models, interest rate derivatives, foreign currency derivatives.

Unit-III

Value at Risk **Teaching Hours: 12**

Concept of value at risk, Approaches for calculating value at risk, introduction to assets liability management. Organisational and Accounting issues in Risk Management. Case studies in risk management.

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Suggested Readings:

- Milind S., International Financial Management, John Wiley and Sons.
- Chance, D.M., An introduction to Derivatives and Risk Management, Harcourt College Publishers.
- Marrison, C, Fundamentals of Risk management, TMH Publication.

Chairperson

241/AE/DS409	Foreign Exchange Management	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

The objective of this paper is to understand concepts and techniques of foreign exchange. It provides an introduction to futures and overview of financial future markets and also deals with foreign exchange contracts and managing the exchange risk.

Course Outcomes

CO1: Gains a brief idea on the concepts and techniques of foreign exchange.
CO2: Shall provide an interest on student's career in foreign exchange and control.
CO3: To make students career in foreign exchange and control.

UNIT-I

Foreign Exchange Market **Teaching Hours: 12**

Function and Structure of the Forex markets, Foreign exchange market participants, Types of transactions and Settlements Dates, Exchange rate quotations, Nominal, Real and Effective exchange rates, Determination of Exchange rates in Spot markets. Exchange rates determinations in Forward markets. Exchange rate behaviour-Cross Rates Arbitrage profit in foreign exchange markets, Swift Mechanism. Triangular and locational arbitrage.

UNIT-II

International Parity Relationships & Forecasting Exchange rate **Teaching Hours: 12**

Measuring exchange rate movements-Exchange rate equilibrium – Factors effecting foreign exchange rate and forecasting foreign exchange rates. Interest Rate Parity, Purchasing Power Parity & International Fisher effects. Covered Interest Arbitrage.

UNIT-III

Foreign Exchange exposure and Foreign exchange risk Management **Teaching Hours: 12**

Management of Transaction exposure Management of Translation exposure- Management of Economic exposure.

Hedging against foreign exchange exposure – Forward Market- Futures Market- Options Market- Currency Swaps-Interest Rate Swap- problems on both two way and three way swaps. Cross

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currency Swaps-Hedging through currency of invoicing- Hedging through mixed currency invoicing.

Suggested Readings

- Eun & Resnick, International Financial Management, Tata McGraw Hill.
- Eiteman, Moffett and Stonehill, Multinational Business Finance, Pearson.
- Jeff Madura, International Corporate Finance, Cengage Learning.
- Alan C. Shapiro, Multinational Financial Management, Wiley India Pvt. Ltd.
- Apte P. G, International Financial Management –6/e, TMH.
- Maurice Levi, International Finance, Routledge.
- Paul Einzip, A Textbook on Foreign Exchange
- NY Buckley, Multinational Financial, Prentice Hall of India.
- Paul Roth, Mastering Foreign Exchange and Money Markets, Pitman.

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241/AE/DS406	Operations Research Techniques	L	T	P	C
		3	0	0	3

Max. Marks: 75 **Written Exam: 50**

Credits: 3 **Internal Assessment: 25**

Note for the paper Setter

1. Seven Questions will be set in all and students will be required to attempt 4 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 2 marks spread over the entire syllabus (2x7=14 marks).
3. For the remaining six questions, students will attempt 1 out of 2 questions from each of the three units (12 marks each).

Course objective

Operations research aims to introduce students to use quantitative methods and techniques for effective decisions–making; model formulation and applications that are used in solving business decision problems.

Course Outcomes

CO1: Learn about the origin, definition and scope of operations research, formulation and solution of linear programming problems by different methods.

CO2: Understand the transportation and assignment problems and their solutions by different methods.

CO3: Knowledge of different queuing models and their solutions by single and multiple servers.

CO4: Learn about the different inventory control models.

Unit-I

Operations Research **Teaching Hours: 12**

Origin, definition and its scope, Linear Programming: Formulation and Solution of linear programming problems by Graphical and Simplex methods, Big - M and Two-phase methods, Degeneracy, Duality in linear programming.

Unit-II

Transportation Problems **Teaching Hours: 12**

Basic Feasible Solutions, Optimum solution by stepping stoneand modified distribution methods, unbalanced and degenerate problems, trans-shipment problem. Assignment problems: Solution by Hungarian method, unbalanced problem, case of maximization, travelling salesman and crew assignment problems.

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Unit-III

Queuing and Inventory Control Models **Teaching Hours: 12**

Basic components of a queuing system, General birth-death equations, steady-state solution of Markovian queuing models with single and multiple servers (M/M/1, M/M/C, M/M/1/k, M/M/C/k).

Economic order quantity (EOQ) model with uniform demand and with different rates of demands in different cycles, EOQ when shortages are allowed, EOQ with uniform replenishment, Inventory control with price breaks.

Reference Books:

- F. Hillier and G.J. Lieberman, Introduction to Operation Research, Holden Day,1990.
- H. A. Taha, Operation Research-An Introduction, Printice Hall of India, 2017.
- J.K. Sharma, Mathematical Model in OperationS Research, Tata McGraw Hill,1989.
- Kanti Swaroop, P.K. Gupta, Man Mohan, Operations Research, Sultan Chand and Sons, 2010.
- N.S.Kambo, Mathematical Programming Techniques, McGraw Hill, 2008.
- P. K. Gupta, and D.S. Hira, Operations Research, S. Chand & Co., 1976.
- S. D. Sharma, Operation Research, Kedar Nath Ram Nath Publications, 2009.

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