

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

For

Post Graduate M.A. Applied Economics

(To be effective from the Academic Session 2026-27)



**Department of Economics
Gurugram University, Gurugram**

(A State Govt. University Established Under Haryana Act 17 of 2017)

Yash Kumar
Chairperson

Table of Contents

S. No.	Particulars
1	Background
2	Program Outcomes
3	Program Specific Outcomes
4	Course Outcomes and Mapping Matrix
5	Qualification Descriptors
6	Scheme of Program
7	Learning outcome Index
8	Syllabus

विद्या जीवनाय न तु जीविकाय

Yash Kumar
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.

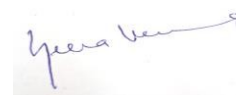
Vision

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 magnet 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.



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.



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.

Yash Kumar
Chairperson

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.


Chairperson

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 the particular 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].

Yash Kumar
Chairperson

Gurugram University, Gurugram

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



Yash Veng
Chairperson



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.

Yash Veng
Chairperson

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		4	0	0	4	0	0	4	30	70			100	
CC-A02	Macro Economic Theory and Policy-I		4	0	0	4	0	0	4	30	70			100	
CC-A03	Mathematics for Economics		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		3	0	0	3	0	0	3	25	50			75	
	2. Public Economics														
	3. Demography														
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						

Yash Vemra
Chairperson

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		4	0	0	4	0	0	4	30	70			100	
CC-A05	Macro Economic Theory and Policy-II		4	0	0	4	0	0	4	30	70			100	
CC-A06	Statistics for Economics		4	0	0	4	0	0	4	30	70			100	
Discipline Specific Elective Courses															
DSE-02 (One from Pool of Courses)	1. Indian Economy		3	0	0	3	0	0	3	25	50			75	
	2. Financial Economics														
	3. International Business														
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		0	0	2	0	0	2	2	-	-	15	35	50	
Total Credits									22						


 Chairperson

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		4	0	0	4	0	0	4	30	70			100	
CC-A08	Basic Econometrics		4	0	0	4	0	0	4	30	70			100	
CC-A09	Research Methodology		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	
	1. Money Market		3	0	0	3	0	0	3	25	50			75	
	2. Financial Derivatives														
	3. Financial Regulations and Supervision														
	4. Economics of Insurance														
	(B) Specialization: International Trade & Business														
	1. International Marketing														
	2. Capital Flows in Financial Markets														
	3. Foreign Trade Procedures and Documentation														
	4. India's Foreign Trade and Policy														
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		0	0	2	0	0	2	2	-	-	15	35	50	
Value-Added Course(s)											1				

VAC-02	One from the University list/MOOC		-	-	2	-	-	2	2					50
Seminar														
Seminar	Seminar	-	-	-	-	-	-	-	2	-	-	50	-	50
Internship/Field Activity#														
Internship/Project Report/Case Study	Internship/Project Report/Case Study/Data Collection	-	-	-	-	-	-	-	4	-	-	100	-	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	T	P	L	T	P	Total Credits	MARKS					
			(Hrs)			Credits				TI	TE	PI	PE	Total	
Core Course(s)															
CC-A10	Economics of Growth & Development		4	0	0	4	0	0	4	30	70			100	
CC-A11	Advanced Econometrics		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		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														
	3. Risk Management: Theory and Practice														
	4. Operations Research Techniques														
	B) Specialization: International Trade & Business														
	1. International Logistics														
1															

	2. Capital Markets & Risk Management													
	3. Foreign Exchange Management													
	4. Operations Research Techniques													
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	150
Total Credits									25					

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

**VALUE ADDED COURSE (VAC), ABILITY ENHANCEMENT COURSE (AEC) &
MULTIDISCIPLINARY COURSES (MDC)**

	AEC	VAC	MDC
Sem.-I	i. Survey Design & Representation of Data	i. Sustainable Development	Contemporary Economic Issues in India
	ii. Start-up Ecosystem	ii. Report Writing	
Sem.-II	i. Quantitative Research Methods	N/A	Data Analysis with Statistical Softwares
	ii. Micro, Small & Medium Enterprises in India		
Sem.-III	N/A	i. Personal Finance	International Trade
		ii. Circular Economy	
Sem.-IV	i. Qualitative Research Methods		Global Economy- Challenges & Prospects
	ii. Introduction to logic		

Pool of VALUE ADDED COURSES

Sr. No.	Name of Course	Credits		Total Credits	Course ID
		T	P		
Semester I					
1.	Sustainable Development	2	0	2	241/AE/VA101
2	Report Writing	2	0	2	241/AE/VA102
Semester III					
1.	Personal Finance	2	0	2	241/AE/VA301
2.	Circular Economy	2	0	2	241/AE/VA302

विद्या जीवनाय न तु जीविकाय

Pool of Multidisciplinary Courses

Sr. No.	Courses	Credits T	Credits P	Total Credits	Course ID
Semester I					
1	Contemporary Economic Issues in India	3	0	3	
Semester II					
1	Data Analysis with Statistical Softwares	0	3	3	
Semester III					
1	International Trade	3	0	3	
Semester IV					
1	Global Economy – Challenges & Prospects	3	0	3	



Pool of Ability Enhancement Courses (AEC)

Sr. No.	Courses	Credits T	Credits P	Total Credits	Course Id
Semester I					
1	Survey Design & Representation of Data	1	1	2	
2	Start-up Ecosystem	2	0	2	
Semester II					
1	Quantitative Research Methods	1	1	2	
2	Micro, Small & Medium Enterprises in India	2	0	2	
Semester IV					
1	Qualitative Research Methods	1	1	2	
2	Introduction to Logic	2	0	2	

Details of courses

	After 2 years		
	No of courses	No of credits per course	Total no of credits
Core Courses	11	4	44
Discipline Specific Elective Courses	06	3	18
Multi-Disciplinary Courses	04	3	12
Ability Enhancement Courses	03	2+2+2	06
Skill Enhancement Courses	02	2	04
Value Added Courses	02	2	04
Seminar	01	2	02
Internship/Project Report/Case Study/Data Collection	01	4	04
Dissertation	01	06	06
TOTAL			100

विद्या जीवनाय न तु जीविकाय

Learning Outcome Index

Semester	PSO →	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
	Course No. ↓									
I	CC-A01				√	√			√	
	CC-A02	√			√		√		√	
	CC-A03			√			√	√		√
	DSE-01			√		√	√	√	√	√
	MDC-01	√	√		√				√	√
	AEC-01								√	
	VAC-01			√				√		
II	CC-A04				√	√			√	
	CC-A05	√			√		√		√	
	CC-A06			√				√		
	DSE-02	√	√		√		√		√	
	MDC-02	√	√		√		√		√	
	AEC-02			√		√		√		
	SEC-01							√	√	√
III	CC-A07	√	√						√	√
	CC-A08									
	CC-A09									
	DSE									
	DSE									
	MDC-03									
	SEC-02									
	VAC-02									
	Seminar									
	Internship									
IV	CC-A10									
	CC-A11									
	DSE									
	DSE									
	MDC-04									
	AEC-03									
	Dissertation									

Syllabus
M.A. Applied Economics 2024-25

SEMESTER- I

	Micro Economic Theory and Applications-I	L	T	P	C
		4	0	0	4

Max. Marks: 100

Credits: 4

Written Exam: 70; Time: 03 Hrs.

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 ($2 \times 7 = 14$ 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,

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.
- Collet 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.

	Macro Economic Theory and Policy-I	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time: 03 Hrs.

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.

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, Irwin 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, Masscehusetts.
- Taylor, L. (1983), Structuralist Macroeconomics, Basic Books, New Longman.
- Turnovsky, S.J. (1977), Macroeconomic Analysis and Stabilization Policy, Cambridge University Press, Cambridge.

	Mathematics for Economics	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70 ; Time: 03 Hrs.

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 ($2 \times 7 = 14$ 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

विद्या जीवनाय ननु जीविकाय

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.

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. & Madhani, 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.

	Basics of Mathematics & Statistics	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs.

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.

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



	Public Economics	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50 ; Time: 02 Hrs.

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.

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: Public 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.

	Demography	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs.

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

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.

SEMESTER-II

	Micro Economic Theory and Applications-II	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70 ; Time: 03 Hrs.

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.

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)
- Collet A., Whinston and Green (2012), Microeconomic Theory, Oxford University Press.

	Macro Economic Theory and Policy-II	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time: 03 Hrs.

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.

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 and Row, New York.
- Dornbusch, R. and F. Stanley (1999), Macroeconomics, Irwin 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, Masscehusetts.
- Taylor, L. (1983), Structuralist Macroeconomics, Basic Books, New Longman.
- Turnovsky, S.J. (1977), Macroeconomic Analysis and Stabilization Policy, Cambridge University Press, Cambridge.

	Statistics for Economics	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time: 03 Hrs.

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

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 Problems of Statistics, McGraw Hill Book, London
- Croxton, F. E., D. Cowden and S. Klein, 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.
- Cochran, W. G., Sampling Techniques, John Wiley, New York.
- Hansen, Hurditz and Meadow, Sample Survey Methods and Theory, John Wiley New York.
- Naghshpour, S. (2012). Statistics for Economics. Business Expert Press
- Gupta S. C. Fundamentals of statistics, Himalaya Publishing house, New Dehli.
- 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.

	Indian Economy	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs.

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.

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.



	Financial Economics	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs.

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.

Unit-III

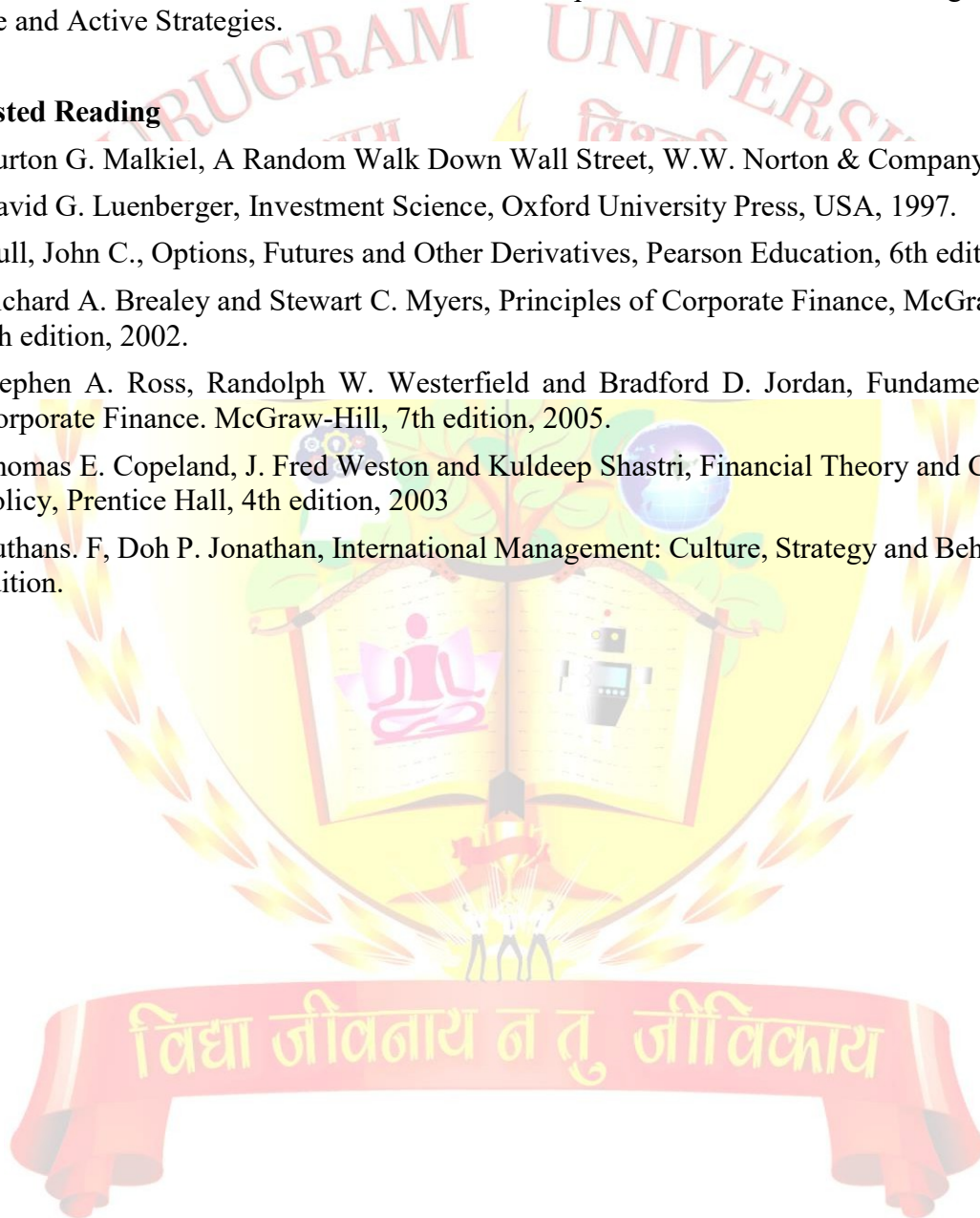
The Valuation of Fixed Income Securities

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.



		L	T	P	C
	International Business	3	0	0	3

Max. Marks: 75

Written Exam :50 ; Time : 02 Hrs.

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 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.

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



		L	T	P	C
	Data Analysis with Statistical Softwares- I	0	0	2	2

Max. Marks: 50

Practical Exam: 35

Credits: 2

Practical/ Internal Assessment: 15

Course objective

The objective of the paper is to make students familiar with theory and application of statistical methods. This course covers the statistical foundations of data analysis including the statistical theory and its applications in Economics through MS Excel and SPSS.

Course Outcomes

CO1: Understand the use of MS Excel and SPSS in data analysis.

CO2: Develop research skills for in-depth analysis of Data

CO3: Ability to use mathematical, statistical, financial, and graphical functions available in MS Excel and SPSS for various computational works related to economics and business.

Module I- MS-Excel: Work sheet-entering data and creating work sheets and work book opening and formatting. Concept of Data-Record and File-types of Data-Data Entry-File handling and Operations like opening, appending and cascading-closing and attribute controls-Data Storage and Retrieval Data Operations-Preparation and Formatting of Text, Tables and Graphs-Estimation of Descriptive Statistics.

Module II- Cross Section & Panel Data Techniques and Methods using SPSS- Groups, Tables, Graphs and Objects, Descriptive Statistics, One Way Tabulation, Cross Tables, One Sample T Test, Independent Sample Test, Paired Sample T Test, One Way ANOVA, Correlation-Bivariate Partial, Regression-Least Square, Binary& Logistic Regression, 2 Stage Least Square, Factor Analysis, Principal Component, Panel Regression Analysis.

विद्या जीवनाय न तु जीविकाय

SEMESTER III

	International Economics	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time : 03 Hrs.

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.

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 Obstfeld 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](http://internationalecon.com)
- Hoekman, Mattoo and English (Ed.) (2002), Development, Trade and the WTO – A Handbook, The World Bank, Washington, D.C.

- 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.



	Basic Econometrics	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time : 03 Hrs

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.

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,
- Gujarati, 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.

		L	T	P	C
	Research Methodology	4	0	0	4

Max. Marks: 100

Written Exam: 70; Time: 03 Hrs.

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.

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 Learning
- 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

	Money Markets	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs

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

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.

विद्या जीवनाय न तु जीविकाय

	Financial Derivatives	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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.

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.



	Financial Regulations and Supervision	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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.

Unit-III

Banking Regulation and BIS

Teaching Hours: 15

Banking regulation act 1949, financial stability, banking regulation; Basel norms- Capital Adequacy, Income recognition; provisioning; statutory 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.

विद्या जीवनाय न तु जीविकाय

	Economics of Insurance	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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

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



	International Marketing	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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.

Unit-III

Emerging Trends in International Marketing

Teaching Hours: 10

Regionalism v/s Multilateralism; 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.



	Capital Flows in Financial Markets	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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.

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 I, 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.



	Foreign Trade Procedures and Documentation	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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.

Unit-III

Foreign Trade Promotion

Teaching Hours: 14

EXIM Business Plan and Strategy, Export Strategy Formulation, Import Strategy (Sourcing 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.



	India's Foreign Trade and Policy	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs.

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.

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.



		L	T	P	C
	Data Analysis with Statistical Softwares- II	0	0	2	2

Max. Marks: 50

Practical Exam: 35

Credits: 2

Practical/ Internal Assessment: 15

Course objective

The objective of the paper is to make students familiar with theory and application of statistical methods. This course covers the statistical foundations of data analysis including the statistical theory and its applications in Economics through R.

Course Outcomes

CO1: To get knowledge about R studio installation and R programming fundamental concepts like variable, data types, commands.

CO2: To design various experiments based on graphs and charts for data visualization in R programming.

CO3: To apply of statistical computations for data analytics. Understand the use of R in data analysis.

Module I- Introduction to R: Overview of R programming, Features of R, Applications of R, Introduction and Installation of R Studio, Creation and Execution of R File in R Studio, Clear the Console and the Environment in R Studio , Basic Syntax in R Programming , R Commands, Variables and scope of variables, Data Types, Operators, Keywords.

Module II- Descriptive statistics in R- Bar Charts, Line Graphs, Scatterplots, Pie Charts, Boxplots, Histograms Mean, Median and Mode, Variance and Standard Deviation, Descriptive Analysis, Normal Distribution, Binomial Distribution, Analysis of Variance (ANOVA) Test : One Way & Two Way ANOVA, Regression: Linear and Multiple Linear Regression, Logistic Regression. Time Series Analysis, Survival Analysis.

विद्या जीवनाय न तु जीविकाय

SEMESTER IV

	Economics of Growth & Development	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time : 03 Hrs

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.

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.

	Advanced Econometrics	L	T	P	C
		4	0	0	4

Max. Marks: 100

Written Exam: 70; Time : 03 Hrs

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).

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,
- Gujarati, 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.

	Capital Markets	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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.

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 Chakarbaty 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 Kulkarni & Dr Suhas Kulkarni. Capital Markets and Financial Services, Nirali Publications, 2001, Mumbai.
- Rajesh Chakraborty, Sankar D.E, Capital Markets in India, Sage Publications, 2011, New Delhi



	Empirical Methods in Finance	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time: 02 Hrs.

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

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



	Risk Management: Theory and Practice	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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

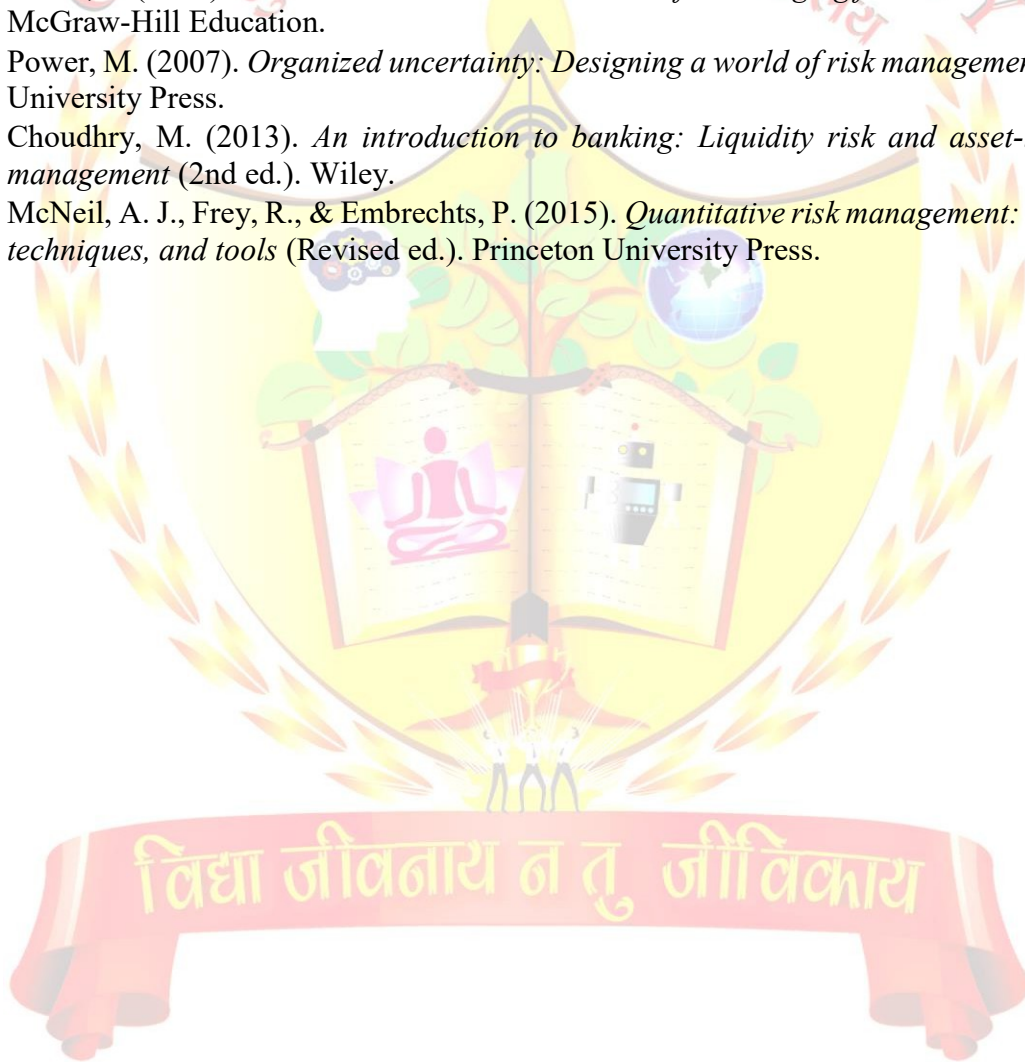
Credit Risk Management

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.

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.



	Operations Research Techniques	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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 stone and 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.

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.



	International Logistics	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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

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

Teaching Hours: 12

Unit - II

Structure of Shipping Industry

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

Teaching Hours: 12

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.



	Capital Markets & Risk Management	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs.

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

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

Teaching Hours: 10

Unit-II

Financial risk

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

Teaching Hours: 14

Risk management

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

Unit-III

Value at Risk

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.

Teaching Hours: 12

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.



	Foreign Exchange Management	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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

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.



	Operations Research Techniques	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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 ($2 \times 7 = 14$ 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 stone and 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.

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.



Ability Enhancement Courses

Semester-I

	Survey Design & Representation of Data	L	T	P	C
		1	0	1	2

Maximum Marks: 50

Written Exam:35; Time : 02 Hrs

Credits:2

Internal assessment:15

Note for the paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course objective

This course introduces students to the principles and techniques of designing effective surveys and presenting data in meaningful ways. Students will learn the entire survey process from question formulation to data analysis and visualization.

Course Outcomes

CO1: Understanding of various survey methods and their applications in different contexts.

CO2: Learn to design surveys that are clear, unbiased, and effective in gathering the required data.

CO3: Apply survey design principles and data representation techniques to real-world scenarios or case studies.

Unit-I

Survey & Questionnaire

Teaching Hours:12

Survey: Meaning & Definition- Identifying need for Survey- Identifying sample- Characteristics of Sample- Types of Survey- Survey methods- Advantages and Disadvantages of Survey- Essential steps in Survey-Online Survey

Questionnaire: Types and parts of Questionnaire, Qualities of good Questionnaire and Precautions in preparing Questionnaire.

Unit-II

Data

Teaching Hours:12

Data, Methods of Collecting Data; Methods of Organising Data, Forms of Data Presentation- Tables and Figures- Basic Statistical Methods of Analysis of Data- Percentage, Mean, Mode and Median, Simple ways of showing results- Tables/Graphs/Diagrams.

Suggested Readings

- Fink, A. (2017). *How to conduct surveys: A step-by-step guide* (6th ed.). SAGE Publications.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey methodology* (2nd ed.). Wiley.
- Fowler, F. J. (2013). *Survey research methods* (5th ed.). SAGE Publications.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). Wiley.
- Bryman, A., & Cramer, D. (2011). *Quantitative data analysis with IBM SPSS 17, 18, and 19: A guide for social scientists*. Routledge.



	Start-up Ecosystem	L	T	P	C
		2	0	0	2

Maximum Marks: 50

Written Exam:35; Time : 02 Hrs

Credits:2

Internal assessment:15

Note for Paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course Objectives: The objective of the course is to understand the concept of a start-up, identify the required strategic resources and entrepreneurial strategies in developing entrepreneurship competencies

Course Outcomes

CO1: Understand the concept of entrepreneurship and identify the dimensions and resources required to establish a start-up.

CO2: Identify the various sources of finance for a new venture and role of central and state government in promoting entrepreneurship

CO3: Analyse start-up capital requirement by analysing legal factors

Unit I

Introduction to Start-up

Teaching Hours:10

Meaning and Definition of Start-up, Concept of Entrepreneur – Features, Types and Functions, Startup Growth Stages: Concept/Idea stage, Pre-Seed/Validation, Seed/Early Stage, Growth Stage/Scaling Stage, Maturity/Exit/IPO/M&A Stage; Identifying Startup Capital Resource requirements, The Legal Environment- Approval for New Ventures-Taxes or Duties Payable for New Ventures. Start Ups Journey in India

Unit II

Financial Issues & Government Support to Start up

Teaching Hours:14

Feasibility Analysis - The cost and process of raising capital – Unique funding issues of a high-tech ventures - Funding with Equity – Financing with Debt- Funding startups with bootstrapping-crowd funding- strategic alliances.

Start Up India Seed Fund Scheme, Tax Concessions, Other incentives for start ups, Start Up Venture funds, DPIIT and its role in nurturing start ups.

Suggested Readings:

- Vasant Desai, Small-Scale Enterprises and Entrepreneurship Ecosystem, 6th Edition, Himalaya Publishing House, 2016.
- Robert Hisrich, Michael Peters, and Dean Shepherd, Entrepreneurship, 11th Edition, McGraw Hill Education, 2019.
- Madhukar Shukla, Social Entrepreneurship in India, 1st Edition, SAGE Publications India Pvt Ltd., 2020.
- Peter Thiel & Blake Masters, Zero to One: Notes on Start Ups, or How to Build the Future, Random House, 2014.
- Steven Fisher, Ja-nae' Duane, The Startup Equation -A Visual Guidebook for Building Your Startup, Indian Edition, Mc Graw Hill Education India Pvt. Ltd, 2016.
- Eric Ries, The Lean Start-up: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, 1st Edition, Crown Publishing, 2011.
- <https://www.startupindia.gov.in/>



Semester- II

	Quantitative Research Methods	L	T	P	C
		1	0	1	2

Maximum Marks: 50

Written exam:35; Time : 02 Hrs

Credits:2

Internal assessment:15

Note for Paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course objective

This course introduces students to essential quantitative techniques used in economic research. Topics covered include statistical analysis, econometrics, and empirical methods relevant to economic modeling and policy analysis.

Course Outcomes

CO1: Understand fundamental quantitative methods used in economic analysis.

CO2: Apply statistical techniques to analyze economic data and draw meaningful conclusions.

CO3: Conduct independent empirical analysis using appropriate econometric methods.

Unit I

Introduction to Quantitative Methods in Economics

Teaching Hours:12

Overview of quantitative research in economics, Types of data in economic research, Principles of statistical inference, Measures of central tendency and dispersion, Sampling techniques and estimation, Simple and multiple regression models.

Unit II

Time Series & Panel data Analysis

Teaching Hours:12

Stationarity and trend analysis, Autoregressive and moving average models, Forecasting techniques, Panel data models: fixed effects and random effects.

Suggested Readings

- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches* (3rd ed.). SAGE Publications.
- Trochim, W. M. K., & Donnelly, J. P. (2008). *The research methods knowledge base* (3rd ed.). Cengage Learning.
- Neuman, W. L. (2014). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Pearson.



		L	T	P	C
	Micro, Small & Medium Enterprises in India	2	0	0	2

Maximum Marks: 50

Written exam:35; Time : 02 Hrs

Credits:2

Internal assessment:15

Note for Paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course objective

The objective of this course is to make students understand the meaning of MSMEs, the challenges faced by them and various government initiatives taken in India to promote MSMEs.

Course Outcomes

CO1: Knowledge on Performance, Key Challenges of MSMEs and Role & Importance of MSMEs in India.

CO2: Gain knowledge on various support system of MSMEs and the role of government in promoting MSMEs

Unit I

MSMEs in India

Teaching Hours:10

MSMEs: MSMED Act 2006, Revised Definition of MSMEs (2020), Features, Role of MSMEs in Economic Development, Challenges Faced by MSMEs.

Unit II

Institutional Support to MSMEs

Teaching Hours:14

Institutional Support to MSMEs: SIDBI, Mudra Banks, Ministry of MSME, National Service and Technology Entrepreneurship Development Board. Government Initiatives for Promoting MSMEs, Steps Taken in Recent Budget to Encourage MSMEs.

Suggested Readings

- Mishra & Puri, (2015), 'Indian Economy', Himalaya Publishing House.
- Ministry of MSME ebook
<https://msme.gov.in/sites/default/files/FlipbookEnglishSchemeBooklet.pdf>
- Garg, (2020), *Handbook on MSMEs (Micro, Small & Medium Enterprises)*, Bharat
- *Micro, Small & Medium Enterprises*, Indian Institute of Banking and Finance.
- Kapila, U. (2018), 'Indian Economy since Independence', Academic Foundation, 28th Edition.
- Latest Union Budget

Semester- IV

		L	T	P	C
	Qualitative Research Methods	2	0	0	2

Maximum Marks:50

Written exam:35; Time : 02 Hrs

Credits:02

Internal assessment:15

Note for Paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course objective

By the end of this course, students will be able to understand and articulate the key concepts and philosophical foundations of qualitative research. They will design research studies, formulate research questions, and plan data collection methods. Students will apply various data collection techniques, differentiate their advantages and limitations, and analyze primary and secondary data. They will also use statistical methods, conduct regression and correlation analyses, and critically evaluate and apply ethical principles in qualitative research.

Course Outcomes

CO1: Students will be able to explain the key principles and philosophical foundations of qualitative research and distinguish it from quantitative research.

CO2: Students will be able to design a qualitative research study, formulate research questions, and develop a detailed research proposal.

CO3: Students will demonstrate proficiency in various data collection methods, including conducting interviews, observations, and using questionnaires and schedules to gather primary and secondary data.

CO4: Students will be able to perform qualitative data analysis, including coding and thematic analysis, as well as apply statistical methods such as measures of central tendency, dispersion, skewness, and regression analysis to qualitative data.

Unit I

Introduction

Teaching Hours:12

Introduction to Qualitative Research, Philosophical Foundations, Research Design and Planning, Ethics in Qualitative Research, Data Collection: Collection of Primary Data, Observation Method, Interview Method, Collection of Data through Questionnaires, Collection of Data through Schedules, Difference between Questionnaires and Schedules, Collection of Secondary Data

Unit II

Introduction

Teaching Hours:12

Elements/Types of Analysis, Statistics in Research, Measures of Central Tendency, Measures of Dispersion, Measures of Asymmetry (Skewness), Measures of Relationship, Simple Regression

Analysis, Multiple Correlation and Regression, Partial Correlation, Association in Case of Attributes

Suggested Readings:

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (4th ed.). SAGE Publications.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The SAGE Handbook of Qualitative Research* (5th ed.). SAGE Publications.
- Patton, M. Q. (2015). *Qualitative Research & Evaluation Methods* (4th ed.). SAGE Publications.
- Silverman, D. (2015). *Interpreting Qualitative Data* (5th ed.). SAGE Publications.
- Kumar, R. (2014). *Research Methodology: A Step-by-Step Guide for Beginners* (4th ed.). SAGE Publications.
- Bryman, A. (2016). *Social Research Methods* (5th ed.). Oxford University Press.
- Sapsford, R., & Jupp, V. (2006). *Data Collection and Analysis* (2nd ed.). SAGE Publications.
- Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). SAGE Publications.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (3rd ed.). Routledge.
- Agresti, A., & Finlay, B. (2018). *Statistical Methods for the Social Sciences* (5th ed.). Pearson.



		L	T	P	C
	Introduction to Logic	2	0	0	2

Maximum Marks:50

Written exam:35; Time : 02 Hrs

Credits:2

Internal assessment:15

Note for Paper Setter

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 7 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course objective

This course provides a comprehensive understanding of scientific knowledge and its application in social sciences. Students explore scientific propositions, syllogism, hypothesis, and theoretical frameworks, enhancing critical thinking and analytical skills through deductive and inductive analysis. It covers research design, proposal formulation, sampling techniques, and measurement and scaling methods.

Course Outcomes

CO1: Understand the evolution of scientific knowledge from propositions to hypotheses and the scientific method.

CO2: Analyze the role of deductive and inductive reasoning in scientific inquiry, including Mill's Method of Experimental Enquiry.

CO3: Apply knowledge of different types and levels of research in designing empirical studies.

CO4: Demonstrate proficiency in selecting appropriate sampling methods and measurement techniques for different types of data.

Unit I

Evolution of Scientific Knowledge

Teaching Hours:12

Propositions, Syllogism, Hypothesis, Scientific Method; Science as a Theoretical System; Criteria for choice of a Theory; Nature of Social Sciences vis-a-vis other Sciences; Role of values in Scientific Enquiry; Deductive and Inductive Analysis, Mill's Method of Experimental Enquiry, Fallacies

Unit II

Research Design

Teaching Hours: 12

Nature, types and levels of Research; Research Design and Research Process; Model building: Formulation and Its Empirical Verification; Formulation of Research Proposal; Types of Sampling and Sampling Procedures;. Measurement and Scaling Techniques: nominal, ordinal, interval and ratio data; Likert's scale, Semantic differential scale, Thrust one scale.

Suggested Readings:

- Hurley, P. J. (2020). *A concise introduction to logic* (13th ed.). Cengage Learning.
- Copi, I. M., Cohen, C., & McMahon, K. (2018). *Introduction to logic* (15th ed.). Pearson.

- Bergmann, M., Moor, J., & Nelson, J. (2020). *The logic book: Fundamentals of logic* (7th ed.). McGraw-Hill Education.
- Hausman, A., & Kahane, H. (2020). *Logic and philosophy: A modern introduction* (14th ed.). Wadsworth Publishing.
- Sinnott-Armstrong, W., & Fogelin, R. J. (2015). *Understanding arguments: An introduction to informal logic* (9th ed.). Cengage Learning.



Value Added Courses

Semester- I

	Sustainable Development	L	T	P	C
		2	0	0	2

Maximum Marks:50

Written exam:35; Time : 02 Hrs.

Credits:2

Internal assessment:15

Note:

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining four questions, students will attempt 1 out of 2 questions from each of the two units (10 marks each).

Course Objectives

This course has been designed with the objective to inculcate the knowledge of sustainable development with a view to balance the economic, environmental and social needs. This course is designed to train the learners to undertake major initiatives in the efficient management of natural resources with special focus on Sustainable Development Goals.

Course Outcomes

CO1: Gain knowledge about the evolution of the concept of sustainable development.

CO2: Learn the policies and programs for sustainable development

CO3: Knowledge of SDGs and MDGs

Unit I

Introduction

Teaching Hours:12

Sustainable Development- Definition, Principles of Sustainable Development: History and emergence of the concept of Sustainable Development, Environmental issues and crisis, Sustainable Development programs and policies.

Unit II

SDGs & MDGs

Teaching Hours:12

Evolution Of Millenium and Sustainable development Goals, Millenium Development Goals, Sustainable Development Goals.

Suggested Readings:

- The Sustainability Revolution: Portrait of a Paradigm Shift by Edwards, Andres R., New Society Publishers, 2005.
- Sustainable development in India: Stocktaking in the run up to Rio+20: Report prepared by TERI for MoEF, 2011.
- Report of the Department for Policy Coordination and Sustainable Development (DPCSD), United Nations Division for Sustainable Development.



	Report Writing	L	T	P	C
		2	0	0	2

Max. Marks: 50

Written Exam:35; Time : 02 Hrs.

Credits: 2

Internal Assessment: 15

Note:

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining Four questions, students will attempt 1 out of 2 questions from each of the four units (10 marks each).

Course Objective: To equip students with comprehensive skills in report writing and research ethics, including the creation and documentation of research reports, proper citation practices, ethical considerations in research, and effective presentation techniques.

Course Outcomes

CO1: Mastery in writing research reports and proposals.

CO2: Proficiency in formatting and documenting research work.

CO3: Ability to avoid plagiarism and apply proper citation methods.

CO4: Competence in preparing and delivering effective PPT presentations.

Unit-I

Report Writing

Teaching Hours:12

Research report – Types of reports- Research proposal, research report; Steps in report writing; Format of the research report; Principles of writing; Documentation; use of tables and graphs, citations and references, chapterization – contents of chapter, Classification and tabulation, Graphical representation, Research presentation.

Unit-II

Research Ethics

Teaching Hours:12

Avoiding plagiarism, Quotations: short, medium, long, Internet Citations, Foot note, end note., Publication: Instructions: spacing, numbering, heading, margin, ibid. etc. How to prepare a PPT presentation?

Suggested Readings

- Ary, D., Jacob, L.C & Sorensen, C.(2010). Introduction to research in education, 8th 5th International edition: USA. Wadsworth Cenage Learning
- 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.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers.
- Cohen, L. & Lawrence, M. (1980). Research methods in education, London: Groom Helm



Semester- III

	Personal Finance	L	T	P	C
		2	0	0	2

Max. Marks: 50

Written Exam:35; Time : 02 Hrs.

Credits: 2

Internal Assessment: 15

Note:

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining Four questions, students will attempt 1 out of 2 questions from each of the four units (10 marks each).

Course Objectives:

The competencies, which form the basis for this semester course, enable students to analyze their personal financial decisions, evaluate the costs and benefits of their decisions, recognize their rights and responsibilities as consumers, and apply the knowledge learned in school to financial situations encountered later in life.

Course Outcomes:

CO1: Recognize opportunities inherent with good personal financial planning.

CO 2: Demonstrate the use of economic information to make informed personal financial decisions.

CO 3: Compute interests charges based on various types of borrowing situations.

UNIT-I

Personal Finance

Teaching Hours: 12

Meaning and importance. Financial planning: meaning, process and role of financial planner. Risk profiling: client data analysis, life cycle, wealth cycle. Asset allocation: Strategic, Tactical, Fixed and Flexible.

UNIT-II

Investment Management

Teaching Hours: 12

Meaning and importance. Investment avenues: equity, debt, gold, real estate, mutual funds, exchange traded funds. Portfolio management: meaning, construction, evaluation and revision. Loan management: meaning, types, importance and assessment.

Suggested Readings

- Kapoor Jack R, Personal Finance, The McGraw-Hill companies.
- Huang. Stanley S C and Randall, Maury R., Investment Analysis and Management. Allyn and Bacon.
- Gaungully, Ashok, Insurance Management, New Age Publishers, New Delhi.
- Ahuja, G K & Gupta Ravi, Systematic Approach to Income Tax, Allahabad, Bharat Law House.
- Pandian, Security Analysis and Portfolio Management, Vikas Publishing House, New Delhi.



	Circular Economy	L	T	P	C
		2	0	0	2

Maximum Marks:50

Written exam:35; Time : 02 Hrs.

Credits:2

Internal assessment:15

Note:

1. Five Questions will be set in all and students will be required to attempt 3 questions.
2. Question No. 1 will be compulsory and will consist of 5 short answer type questions of 3 marks spread over the entire syllabus (3x5=15 marks).
3. For the remaining Four questions, students will attempt 1 out of 2 questions from each of the four units (10 marks each).

Course Objectives: The course aims to create skilled manpower and entrepreneurship in the field of Circular Economy and to acquaint students about the needs of businesses related to circularity and to create zeal among students to pursue research and development (R&D), and Entrepreneurship in this domain. Creation of entrepreneurs who would promote knowledge in core competencies of environmental education is also aimed by this course.

Course Outcomes

CO1: Apply the concept of circular economy to environmental engineering problems

CO2: Understand the concept of circularity and conduct relevant research

CO3: Use the principles of circularity for application to sustainable development

Unit I

Introduction to Circular Economy

Teaching Hours:12

Linear Economy and Its Emergence, Economic and Ecological Disadvantages of Linear Economy, Replacing Linear Economy by Circular Economy, Development of Concept of Circular Economy, A Differential - Linear Vs Circular Economy

Unit II

Characteristics And Legal Framework

Teaching Hours:12

Material Recovery, Waste Reduction, Reducing Negative Externalities, Explaining Butterfly Diagram, Concept of Loop; Role of Governments and Networks, Sharing Best Practices, Universal Circular Economy Policy Goals, India and CE Strategy, ESG.

Suggested Readings:

- The Circular Economy A User's Guide, Walter R Stahel , Routledge; 1st Edition (24 June 2019)
- Circular Economy: (Re) Emerging Movement, Shalini Goyal Bhalla, Invincible Publisher
- The Circular Economy Handbook: Realizing The Circular Advantage, Peter Lacy, Jessica Long, Wesley Spindler, Palgrave Macmillan UK
- Waste to Wealth: The Circular Economy Advantage, Peter Lacy, Jakob Rutqvist, Palgrave Macmillan
- Towards Zero Waste: Circular Economy Boost, Waste to Resources María-Laura Franco-García, Jorge Carlos Carpio-Aguilar, Hans Bressers. Springer International Publishing 2019
- Strategic Management and the Circular Economy Marcello Tonelli, Nicolo Cristoni, Routledge 2018.
- Circular Economy: Global Perspective Sadhan Kumar Ghosh, Springer, 2020
- The Circular Economy: A User's Guide Stahel, Walter R. Routledge 2019
- An Introduction to Circular Economy Lerwen Liu, Seeram Ramakrishna, Springer Singapore 2021.



Multi-Disciplinary Courses

Semester- I

	Contemporary Economic Issues in India	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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: The course intends to acquaint students with the strategy of economic development of Indian economy. The Course does not require any prior knowledge of economics. The paper also aims at creating an awareness among the students regarding the current issues and trends in Indian Economy. The course will be useful for students aiming towards careers in the government sector, policy analysis and business.

Course Outcomes

CO1: Describe the current problems of Indian Economy

CO2: Identify the factors contributing to the recent growth of the Indian economy

CO3: Analyze the sector specific policies adopted for achieving the aspirational goals

Unit-I

Union Budget and economic Survey

Teaching Hours:12

Key to budget documents, Economic Survey 2022-23 Chapter 3, Tax Reforms: Direct and Indirect tax reforms since 1991, Fiscal Deficit and FRBM Act, Recommendations of Current Finance Commission

Unit-II

Governance and Development

Teaching Hours:12

Urbanization and Smart City Mission, Atma Nirbhar Bharat Abhiyan, Agrarian Crisis, Doubling Farm Incomes, MGNREGS, Make in India, development of economic and social infrastructure, Gatishakti national Masterplan, National logistics Policy.

Unit-III

India and International Trade

Teaching Hours:12

Composition, direction and volume of India's Balance of Trade, New Foreign Trade Policy 2023, Global Value Chains and India, Recent Trade Agreements of India- UAE, Australia, and EFTA, Benefits of Trade agreements to India.

Suggested Readings

- Agrawal A.N. - Indian Economy- Problems of Development and Planning-Kalyani publishers,2011.
- Dutt Ruddar and K.P.M Sundaram (2001): Indian Economy, S Chand & Co. Ltd. New Delhi.
- Kapila Uma: Indian Economy: Policies and Performances, Academic Foundation 11.
- Mishra S.K & V.K Puri (2001) "Indian Economy and -Its development experience", Himalaya Publishing House.
- Let's Talk About Budget. Centre for Budget and Governance Accountability. Chapters 4 to 6. Union Budget of India, Making of Union Budget, What does Union Budget papers look like?
- Union Budget of India:
- https://www.indiabudget.gov.in/doc/Budget_at_Glance/budget_at_a_glance.pdf
- Economic Survey:
- <https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap03.pdf>
- Pranab Mukherjee (2012), "Budget Making", in K. Basu and A. Maertens (eds), The New Oxford Companion to Economics in India, OUP.
- Fifteenth Finance Commission Report
- <https://fincomindia.nic.in/asset/doc/commissionreports/XVFC%20VOL%20I%20Main%20Report.pdf>

Semester- II

	Data Analysis with Statistical Softwares	L	T	P	C
		0	0	3	3

Max. Marks: 75

Practical Exam: 50

Credits: 3

Practical/ Internal Assessment: 25

Course objective

The objective of the paper is to make students familiar with theory and application of statistical methods. This course covers the statistical foundations of data analysis including the statistical theory and its applications in Economics through MS Excel and SPSS.

Course Outcomes

CO1: Understand the use of MS Excel and SPSS in data analysis.

CO2: Develop research skills for in-depth analysis of Data

CO3: Ability to use mathematical, statistical, financial, and graphical functions available in MS Excel and SPSS for various computational works related to economics and business.

Unit- I

Data Collection and Fundamentals of Data Analytics

Types of data: qualitative vs quantitative, primary vs. secondary, Use of various data collection techniques across various business domains, Qualitative data collection techniques (FGDs and Depth interviews), Quantitative data collection techniques (Survey), Quantitative data collection techniques (Experiments).

Unit- II

Module I- MS-Excel: Work sheet-entering data and creating work sheets and work book opening and formatting. Concept of Data-Record and File-types of Data-Data Entry-File handling and Operations like opening, appending and cascading-closing and attribute controls-Data Storage and Retrieval Data operations-Preparation and Formatting of Text, Tables and Graphs-Estimation of Descriptive Statistics.

Unit- III

Module II- Cross Section & Panel Data Techniques and Methods using SPSS- Groups, Tables, Graphs and Objects, Descriptive Statistics, One Way Tabulation, Cross Tables, One Sample T Test, Independent Sample Test, Paired Sample T Test, One Way ANOVA, Correlation-Bivariate Partial, Regression-Least Square, Binary & Logistic Regression, 2 Stage Least Square, Factor Analysis, Principal Component, Panel Regression Analysis.

Suggested Readings

- Ken Black, 2013, Business Statistics, New Delhi, Wiley.
- Lee, Cheng. et al., 2013, Statistics for Business and Financial Economics, New York: Heidelberg Dordrecht.
- Anderson, David R., Thomas A. Williams and Dennis J. Sweeney, 2012, Statistics for Business and Economics, New Delhi: South Western.
- Waller, Derek, 2008, Statistics for Business, London: BH Publications.
- Wayne L. Winston, 6th Edition, Microsoft Excel Data Analysis and Business Modeling.
- U Dinesh Kumar, 2021, Business Analytics: The Science of Data-Driven Decision-Making.
- James Evans, Business Analytics: 2nd Edition.



Semester- III

	International Trade	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; ; Time : 02 Hrs

Credits:03

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 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, Haberler's Opportunity cost theory, Offer curves approach: Trade Indifference curves and Trade offer curves.

Unit-II

Trade Barriers and BOP

Teaching Hours:12

Free Trade Versus Protectionism - Need for Protection, Tariff and Non-Tariff instruments of Trade Policy; Balance of Payment: Concepts, structure and disequilibrium in Balance of payments; BOP under fixed and flexible exchange rates; Recent Trends in BOP in India.

Unit-III

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 Obstfeld 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](http://internationalecon.com)
- Hoekman, Mattoo and English (Ed.) (2002), Development, Trade and the WTO – A Handbook, The World Bank, Washington, D.C.
- 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.

विद्या जीवनाय न तु जीविकाय

Semester -IV

	Global Economy- Challenges & Prospects	L	T	P	C
		3	0	0	3

Max. Marks: 75

Written Exam: 50; Time : 02 Hrs

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: The objective of this course is to impart knowledge about how global economic disturbances impact the domestic economy. The positive as well as negative impacts will be discussed to broaden the horizon of global economy and create analytical skills among students.

Course Outcomes

CO1: Understanding of the basic concepts related to global economy

CO2: Knowledge of Indian economy when relative to global economy.

CO3: Exposure to the complexities and dynamics of current global transitions in the world economy, geo-politics and international relations.

Unit-I

Introduction to Global Economy

Teaching Hours:12

Brief History of Globalisation, Meaning, Evolution, Components and Significance of Global Economy, Factors Affecting Global Economy, impacts of globalization on developed and developing economies, Institutions ensuring harmonious global economy- IMF, World Bank, WTO.

Unit-II

India and Global Economy

Teaching Hours:12

India's role in global economy - Share in global trade and capital flows, - BoP position - dependence on capital inflows - FDI and FPI, Impact of global economic crisis - Trade problems and policy changes in India-trade reforms since 1991-implications on BOP, exchange rate and factor movements, Regional and other trade blocks - SAARC, BRICS, IBSA and G20 - India as an emerging global economic power.

Unit-III

Limitations & Challenges of Global Economy

Teaching Hours:12

Policy of Self Reliance Vs Globalisation, Consequences of Globalization on domestic economy, Global Sustainability issues: impact on environment and climate, Financial Crisis of 1997 and 2008, - GATS, TRIPs, TRIMs - Trade Problems of Developing Countries.

Suggested Readings

- Ahulwalia I.J. and I.M.D. Little: India's Economic Reforms and Development, Oxford University Press, (1999).
- Bardhan P.K.: The Political Economy of Development in India, Oxford University Press, (1999).
- Bimal Jalan: Indian Economy - Problems and Prospects
- Bimal Jalan: India's Economic Policy - Preparing for twenty first century, Vikas Publishers (1996).
- Brahmananda P.R. and V.R. Panchamukhi: Development Experience in the Indian Economy: Inter- • State Perspectives (2001).
- Dutt R. & Sundaram, K.P.M: Indian Economy, S. Chand & Co. • Mishra & Puri: Indian Economy, Himalaya Publishing Company.
- Kapila, U. (ed.), Indian Economy since Independence, Academic Foundation, 2011-12, 22nd edition
- Jalan, B. (ed.), The Indian Economy: Problems and Prospects, Penguin Books, 1992
- Rangarajan, C., Select Essays on Indian Economy, Vol.1&2, Academic Foundation, 2004
- Krueger A. (ed.), Economic Policy Reforms and the Indian Economy, Oxford University Press, 2003
- Sinha Kumar Ajit: India Towards economic Super power: A journey of Economic Reforms, Deep and Deep Publication Pvt Ltd, 2005.
- Mungekar, Nachane, Rao (2001) Indian Economy in the new millennium, Himalaya Publishing House
- Ghate Chetan (ed.) The Oxford Handbook of the Indian Economy, 2012
- Rajan, R., "Faultlines, how hidden fractures still threaten the world Economy, 2011
- Yusuf Shahid, Simon Everert and Weiping W.U. (ed) 2001,
- Facets of Globalisation: International and Local Dimensions of Development, The World Bank, Washington DC.
- Stiglitz Joseph E. (2002), Globalisation and Its Discontents, W.W. Norton and Company, New York.
- Goldin Ian and Kenneth Reinert (2006), Globalisation for Development World Bank and Palgrave Macmillan, Washington DC.
- Petras James and Henry Vitmeyer (2001), Globalisation Unmasked Madhyam Books, Delhi.

- Bhagawathi Jagadish (2004), In Defence of Globalisation, Oxford University Press, New Delhi.
- Singh Karlijit (1998), Globalisation of Finance Madhyam Books, New Delhi. Razin and Sadka - The Economics of Globalization - Policy Perspective from Public Economics, 2010.
- Backer, Epstein and Pollin - Globalization and Progressive Economic Policy, 2009

