DAV University, Jalandhar

Department of Commerce Business Management & Economics

Scheme and Syllabi

for

Bachelor of Science (Economics)
Honours/ Honours with Research

(As per NEP-2020)

Batch-2024 & onwards

Introduction of the Programme

The B.Sc. (Economics) Honours programme has been designed to provide a cutting-edge expertise in mainstream economics with minor (Econometrics). The programme aims to develop analytical, creative and critical thinking skills for problem solving and decision making. It aims at better understanding of social, economic and political issues and also explores the full spectrum of finance. The transferable skills attained through the B.Sc. (Economics) Honours are highly sought after by employers and increase the employability quotient of students in various dynamic fields. A student could be an economist, a government advisor, financial consultant, econometrician, banker and also look forward to different government positions after successful completion of the programme. Keeping in view the new NEP, the programme is multidisciplinary in nature and integrates different fields like Finance, Mathematics, Statistics, Operations Research, industrial sector, agriculture sector, Environmental Studies, Model Building with an inbuilt local as well as global perspective. New elements such as internship, case studies, seminars and research projects enhance deeper understanding of the practical applications of the programme. So, join in to embark on a whole new adventure with us. The Bachelor's degree Honours programme in Economics is a full-time undergraduate programme of 4 years that aims at providing a programme structure which would retain the 'traditional' in the programme and equip the students with business acumen necessary to succeed in the professional world. On completion of B.Sc. (Economics) Honours at DAV University, students will acquire comprehensive knowledge of how the economic principles are applied in the society, family, government and private sector, business, and science.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1: To equip the students with comprehensive understanding of the concepts and theories of economics.

PEO2: To develop analytical and problem-solving skills in order to understand the dynamics of business and society at local and regional level.

PEO3: To develop research orientation among students to pursue their higher education and career in the field of economics.

PROGRAMME OUTCOMES (POs)

PO1: Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organisational, and personal) from different perspectives.

PO2: Effective Communication: Speak, read, write, and listen clearly in person and through electronic media in English and one Indian language, and make meaning of the world by connecting people, ideas, books, media, and technology.

PO3: Social Interaction: Elicit the views of others, mediate disagreements, and help reach conclusions in group settings.

PO4: Effective Citizenship: Demonstrate empathetic social concern, equity-centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

PO5: Ethics: Recognise different value systems, including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO6: Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO7: Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: To enable the students for the application of economic principles for the understanding of real time regional and national issues.

PSO2: Empowering the students to identify the key macro-economic indicators and measures of economic change, growth, and development.

Mapping of PEO with POs

PEOs / Pos	PEO 1	PEO 2	PEO 3
PO1	Yes	Yes	Yes
PO2		Yes	Yes
PO3	Yes	Yes	
PO4			Yes
PO5	Yes		Yes
PO6	Yes		
PO7	Yes	Yes	Yes

Mapping of PEO with PSO

PEOs / PSOs	PEO 1	PEO 2	PEO 3
PSO1	**Yes**	**Yes**	
PSO2	**Yes**	**Yes**	**Yes**
PSO3	**Yes**		**Yes**

Course-type Wise Details of Credits				
S.No.	**Broad Category of Course**	**3-Yr B.Sc Economics (Credits)**	**4-Yr B.Sc Economics (Credits) Honours**	**4-Yr B.Sc Economics (Credits) Honours with Research**
1	Core Courses	61	85	83
2	Minor Courses	24	40	32
3	Multidisciplinary Courses	9	9	9
4	Ability Enhancement Course (AEC)	8	8	8
5	Skill Enhancement Courses (SEC)	10	10	10
6	Value Added Courses	6	6	6
7	Summer Internship	2	2	2
8	Research Project/Dissertation	-		12
	Total Credits	**120**	**160**	**162**

Semester & Course Wise Details of Credits										
S.No.	**SEMESTER**	**DSC**	**MC**	**MDC**	**AEC -C**	**SEC-C**	**VAC -C**	**SEC-SI**	**SEC-RP**	**Total**
1	**I**	4x2=8	-	3x1=3	2	2x2=4	3	-	-	**20**
2	**II**	5x1=5 4x1=4	-	3	2	3	3	-	-	**20**
3	**III**	4x2=8	4x1=4	3	2	3	-	-	-	**20**
4	**IV**	4x3=12	4x2=8	-	-	-	-	-	-	**20**
5	**V**	4x2=8	4x2=8	-	2	-	-	2	-	**20**
6	**VI**	4x4=16	4x1=4	-	-	-	-	-	-	**20**
7	**VII** (Hons)	4x3=12	4x2=8	-	-	-	-	-		**20**
8	**VIII** (Hons)	4x3=12	4x2=8	-	-	-	-	-		**20**
7	**VII** (Hons with Research)	4x3=12 2x1=2	4x1=4	-	-	-	-	-	3	**21**
8	**VIII** (Hons with Research)	4x2=8	4x1=4	-	-	-	-	-	9	**21**

KEY:

DSC = Discipline specific Course	**MDC= Multi-Disciplinary Course**	**AEC-C = Ability Enhancement Course**	**MC = Minor Course**
VAC - C = Value Added Course	**SEC-C =Skill Enhancement Course**	**SEC- SI = Summer Internship**	**SEC- RP= Research Project**

Semester 1

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN103	Microeconomics-1	4	0	0	4	DSC
2	ECN104	Macroeconomics-1	4	0	0	4	DSC
3		Multi-disciplinary Elective	-	-	-	3	MDC
4		Workshop on Excel for Economists	0	0	4	2	SEC-C
5		Skill Enhancement-Elective	-	-	-	2	SEC-C
6		Value Added Courses	-	-	-	2	VAC-C
7		Ability Enhancement Elective	-	-	-	2	AEC-C
						19	

Note:

1. *Student is required to opt for skill enhancement course of two credits from the relative basket.*
2. *Student is required to opt for Multi-Disciplinary Course of three credits from the relative basket.*

Semester 2

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN105	Microeconomics-II	4	0	0	4	DSC
2	ECN106	Macroeconomics-II	4	1	0	5	DSC
3		Multi-Disciplinary Elective	-	-	-	3	MDC
4		Ability Enhancement Elective	-	-	-	2	AEC-C
5		Skill Enhancement-Elective	-	-	-	3	SEC-C
6		Value added course	-	-	-	2	VAC-C
7		Value added course	-	-	-	2	VAC-C
						21	

Note:

Student is required to opt for skill enhancement course of two credits other than opted in previous semester/s from the relative basket.

Student is required to opt Multi-Disciplinary Course of three credits other than opted in previous semester/s from the relative basket

First Exit:

The student will be awarded "Undergraduate Certification in Economics" after exit at this point, provided they secure 4 credits in skill/work based vocational courses or internship/apprenticeship for 4-6 weeks (with minimum 120 hours) during summer term.

Semester 3

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN201	Microeconomics-III	4	0	0	4	DSC
2	ECN202	Macroeconomics-III	4	0	0	4	DSC
3	ECN203	Statistics-I	4	0	0	4	MC
4		Multi-Disciplinary Elective	-	-	-	3	MDC
5		Ability Enhancement-Elective	-	-	-	2	AEC-C
6		Skill Enhancement-Elective	-	-	-	3	SEC-C
						20	

Note:

1. *Student is required to opt for skill enhancement course of two credits other than opted in previous semester/s from the relative basket.*
2. *Student is required to opt for ability enhancement course of two credits other than opted in previous semester/s from the relative basket*
3. *Student is required to opt Multi-Disciplinary Course of three credits other than opted in previous semester/s from the relative basket*

Semester 4

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN204	Development Economics	4	0	0	4	DSC
2	ECN205	Regional Economics with special reference to Punjab Economy	4	0	0	4	DSC
3	ECN206	Money and Banking	4	0	0	4	DSC
4	ECN207	Statistics-II	4	0	0	4	MC
5	ECN208	Mathematics for Economists-1	4	0	0	4	MC
						20	

Note:

1. *Student is required to opt for ability enhancement course of two credits other than opted in previous semester/s from the relative basket*
2. *Continuing students will undergo an internship in approved organizations for minimum 6 weeks during the summer vacations. They will be required to present summer internship project report during the fifth semester.*

Second Exit:

The student will be awarded "Undergraduate Diploma in Economics" after exit at this point, provided they secure 4 credits in skill/work based vocational courses or internship/apprenticeship for 4-6 weeks (with minimum 120 hours) offered during first year summer term or second year summer term.

Semester 5

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN301	Agricultural Economics	4	0	0	4	DSC
2	ECN302	Indian Economy	4	0	0	4	DSC
3	ECN303	Seminar on Summer Internship	0	0	0	2	SEC-SI
4	ECN304	Statistics- III	4	0	0	4	MC
5	ECN305	Mathematics for Economists-II	4	0	0	4	MC
		Ability Enhancement-Elective	-	-	-	2	AEC-C
						20	

Semester 6

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN306	Public Finance	4	0	0	4	DSC
2	ECN307	International Economics	4	0	0	4	DSC
3	ECN308	Economics of Health and Education	4	0	0	4	DSC
4	ECN309	Environmental Economics	4	0	0	4	DSC
5	ECN310	Mathematics For Economists-III	4	0	0	4	MC
						20	

Note

The student will be awarded "Bachelor's Degree in B.Sc. Economics" after completion.

Semester 7 (With Research)

S. No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN401	Industrial Economics	4	0	0	4	DSC
2	ECN402	Labor economics	4	0	0	4	DSC
3	ECN403	Research Methodology	4	0	0	4	DSC
4	ECN404	Research Ethics	2	0	0	2	DSC
5	ECN451	Research Project-1 (Synopsis)	0	0	0	3	SEC-RP
6	ECN452	Basic Econometrics	4	0	0	4	MC
						21	

Semester 8

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN405	Global Political Economy	4	0	0	4	DSC
2	ECN406	Advanced Global Trade Challenges and Opportunities	4	0	0	4	DSC
3	ECN453	Research Project-II (Submission)	0	0	0	9	SEC-RP
4	ECN454	Advanced Econometrics	4	0	0	4	MC
						21	

Note:

1. *Student is required to opt for value added course of two credits other than opted in previous semester/s from the relative basket.*

The student will be awarded "Bachelor's Degree (Honours with Research) in Economics" after completion.

Semester 7 (without Research)

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN401	Industrial Economics	4	0	0	4	DSC
2	ECN402	Labor economics	4	0	0	4	DSC
3	ECN407	History of Economic Thought	4	0	0	4	DSC
4	ECN452	Basic Econometrics	4	0	0	4	MC
5	ECN455	Operations Research	2	0	4	4	MC
						20	

Semester 8

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	ECN405	Global Political Economy	4	0	0	4	DSC
2	ECN406	Advanced Global Trade Challenges and Opportunities	4	0	0	4	DSC
3	ECN408	Financial Economics	4	0	0	4	DSC
4	ECN454	Advanced Econometrics	4	0	0	4	MC
5	ECN456	Data Analysis	2	0	4	4	MC
						20	

Note:

The student will be awarded "Bachelor's Degree (Honours) in Economics" after completion.

Course Code	Ability-Enhancement Courses	Cr.	Course Code	Skill-Enhancement Courses	Cr.	Course Code	Value-Added Courses	Cr.
MGN901A	Personality Enhancement	1L+1P	MGN901S	Essentials of Entrepreneurship-Thinking and Action	2L+1P		Environmental Studies **(Mandatory)**	2L+2P
MGN902A	Personality Development	2P		Design Thinking	2P		Human Values and Ethics **(Mandatory)**	2L+2T
	Behavioural& Life Skills	1L+1P		Design Thinking & Innovation	2L		Gender Sensitization	2L

	Global Citizenship in Higher Education	2L		Data Analytics	2L+1P		Professional Ethics	2L
	Communication Skills **(Mandatory)**	1L+1P		Cyber Security	3 (2L+1 P)		Sustainable Development	2L
	Health & Yoga	1L+1P		Digital Fluency	1L+1P		Green Technologies	2L
	Technical Report Writing	2L		Fundamentals of Computer programming & IT(FCPIT)	2L		General Studies	2L
MGN903A	Leadership Management	2L		Python Programming	3 (2L+1 P)		NSS	2 (1L+1 P)
	Therapeutic Yoga	1L+1P		Disaster Preparedness and Planning	2L			
	Creative & Critical Thinking	1L+1P		Intellectual Property Rights	2L			
	Community Engagement & Social Responsibility **(Mandatory)**	1L+1P		Apiculture	2P			
				NCC*	3 (2L+1 P)			

Multidisciplinary Studies

Course Code	Course Name	Faculty/Department
	Basics of Physics	Physics
	Basics of Chemistry	Chemistry
	Basics of Biology	Zoology & Botany
	Introductory Biotechnology	Biotechnology
	Introductory Microbiology	Microbiology
	Functioning of the Human Body	Zoology
	Introductory Botany	Botany
MGN901M	Business Management for Beginners	CBME
MGN902M	Fundamental of Mutual Funds	CBME
ECN901M	Economics for Beginners	CBME
	Professional Communication	English
	Fine Arts	Arts, Fine Arts & Performing Arts
	Jyotish: 'Eye of the Veda'	Vedic Studies
	Mathematical Statistics	Mathematics
	Introductory Journalism	JMC
	Professional Photography	JMC
	Library Information Sciences	Library Sciences

L	T	P	Credits
4	0	0	4

Course Code	ECN103							
Course Title	Microeconomics – I							
Course Outcomes	CO1: The course introduces the students to the first course in economics from the perspective of individual decision making as consumers and producers. CO2: The students learn some basic principles of microeconomics, interactions of supply and demand, and characteristics of perfect and imperfect markets. CO3: The student will learn about production function and producer equilibrium. CO4: students will understand the fundamentals of cost and revenue concepts.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								
•	Introduction to Economics: Meaning, Definition, Scope, Importance and Basic problems of an economy.							CO1
•	Demand and Supply functions, Market Equilibrium, Shift in market equilibrium due to change in demand and supply.							CO1
•	Elasticity of demand: Methods of calculating price, income, and cross elasticities; Degrees and their interpretation, relationship among various types of elasticities.							CO1
•	Elasticity of Supply: Meaning and Method of calculating elasticity of Supply. Degrees and their interpretation.							CO1
Unit 2								
•	Consumer Choice: Cardinal theory: Law of Diminishing Marginal Utility and Law of Equi Marginal utility.							CO2
•	Ordinal theory: Budget sets, Indifference curves: Meaning and properties, marginal rate of substitution.							CO2

•	Consumer equilibrium; effects of change in prices and income; Income and substitution effects: Hicksian approach.	CO2
Unit 3		
•	Theory of production: Production function, isoquants, properties of isoquants, iso-cost lines, optimum input combination.	CO3
•	Producer's Equilibrium, Expansion Path, Principle of marginal rate of technical substitution.	CO3
•	Law of variable proportions and Law of returns to scale.	CO3
Unit 4		
•	Theory of Cost: concept of economic cost; Short run and long run cost curves; increasing and decreasing cost industries; envelope curve.	CO4
•	Traditional cost theory v/s Modern cost theory	CO4
•	Revenue analysis: concept of total revenue, marginal revenue and average revenue & their relationships	CO4
Text Books	1. Bernheim, B. D., M. Whinston and A. Sen. *Microeconomics*. Tata McGraw-Hill Education. 2. Koutsoyiannis, A. *Modern Microeconomics.* Palgrave Macmilian, Second Edition, 2003 *3.* Lipsey, *G.* and K.A. Chrysal. *Economics.* Oxford University Press. 2004. 4. Mankiw, N.Gregory. *Principles of Economics.* Worth Publishers. 2007. Seventh Edition. 5. Salvatore, D. *Microeconomics: Theory and Applications.* Oxford University Press. 2008 Samuelson, P.A. and W. D. Nordhaus. *Economics.* Tata McGraw Hill. 2005	

L	T	P	Credits
4	0	0	4

Course Code	ECN104							
Course Title	Macroeconomics – I							
Course Outcomes	CO1: To understand the concept of national income and different methods of measuring it. CO2: To summarize the contributions made by the classical economists in macroeconomics. CO3: To summarize the contributions made by the Keynesian economists in macroeconomics. CO4: To understand the concept of money and the factors contributing demand for money							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Introduction to Macroeconomics							
•	Meaning, Nature and scope, importance, Micro vs. Macroeconomics, and its limitations.							CO1
•	Variables: Real and nominal; Induced and autonomous; Lagged and un-lagged; ex-ante andex- post;							CO1
•	Model and Equations; Equality & identity; stock and flow; Static, Equilibrium and Disequilibrium.							CO1
Unit 2	National Income							
•	Definition: Economic and Non- Economic Production: Productive Vs Non-productive,intermediate, and final output;							CO2
•	Concepts of national income. Measurement of National Income: National income: Concepts, components and methods of measurement; Income, Output and Expenditure methods,Difficulties in national income measurement. Nominal and Real GNP.							CO2
•	Circular flow of income in two, three and four sectors' economies;							CO2

Unit 3		
•	National Accounts: Meaning, objectives and importance. Different methods of preparing national income accounts; Social Income Accounts, Fund Flow Accounting, Balance of Payment method and Input Outputmethod.	CO3
•	GNP and Welfare; Inter temporal and international comparisons of National income.	CO3
Unit 4	Determination of Income and Employment:	
•	Classical View: Labour Market; Product Market and MoneyMarket.	CO4
•	Say's Law of Markets (Barter and a monetized economy).	CO4
•	Classical theory of income, output and incomedetermination.	CO4
Text Books	1. Beckerman, W. *An introduction to National Income Analysis*, London, E.L.B.S. 1976. 2. Studenski, Paul,A. *The Income of Nations part 2, Theory and Methodology*, New York UniversityPress, 1958. 3. Ackley, G. *Macro Economics: Theory and Policy*. Macmillan publishers. 1978. 4. Branson, William H. *Macro-Economic Theory and Policy*. Indian edition. 5. Dornbush, R., S. Fisher and R. Startz. Macro Economics. Tata Mc. Graw Hill. 2004. 6. Rana, K.C. and K.N. Verma. *Macro-Economic Analysis*. Vishal Publishing Co. 2014. 7. Shapiro, Edward. *Macroeconomic Analysis*. Galgotia Publications. 1999. Indian edition.	

L	T	P	Credits
0	0	4	2

Course Code								
Course Title	Workshop on Excel for Economists							
Course Outcomes	**CO1.** Understand the structure of Excel functions **CO2.** Create, sort, and filter lists. **CO3.** Apply conditional functions **CO4.** Use Excel's Look Up functions							
Examination Mode	Practical							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	-	-	-	20	-	30	-	50
Syllabus								**CO Mapping**
Unit 1	**Introduction to Excel**							
•	Launch Excel and navigate the worksheet. Enter and edit data in a worksheet. Build worksheets.							CO1
•	Structure of an excel function							CO1
•	Functions such as SUM (), MIN (), MAX (), AVERAGE (), COUNT (), AUTOSUM, AUTOFILL.							CO1
Unit 2	**Working with an Excel List**							
•	Understanding Excel List Structure, sorting a List Using Single Level Sort, sorting a List Using Multi-Level Sorts, Using Custom Sorts in an Excel List.							CO2
•	Filter an Excel List Using the AutoFilter, Creating Subtotals in a List							CO2
•	Format a List as a Table, Using Conditional Formatting to Find Duplicates, Removing Duplicates.							CO2
Unit 3	**Conditional Functions and Working with Large Excel Data Sets**							
•	Conditional Functions: Working with Excel Name Ranges, Using Excel's IF () Function, Nesting Functions, Using Excel's COUNTIF () Function, Using Excel's SUMIF () Function, Using Excel's IFERROR () Function.							CO3
•	Working with Large Sets of Excel Data: Using the Freeze Panes Tool,							CO3

	Grouping Data (Columns and/or Rows), Consolidating Data from Multiple Worksheets.	
Unit 4	**Look Up and Text Based Function**	
•	Excel's Lookup Functions: Using Excel's VLOOKUP () Function	CO4
•	Using Excel's HLOOKUP () Function	CO4
•	Using Excel's INDEX () and MATCH() Functions	CO4
Text Books	1. Etheridge, D. Excel Data Analysis, Indianapolis: Wiley Publishing. Latest Edition 2. Alexander, Kusleika, & Walker Bach; Excel 2019 Bible; Wiley,2018 3. John Walkenbach; Excel Charts, Wiley,2016 4. Lokesh Lalwani, BPB publication, 'Excel All-in One: Master the new features of 5. Excel,2019	

L	T	P	Credits
4	0	0	4

Course Code	ECN105							
Course Title	Microeconomics – II							
Course Outcomes	CO1: To inculcate knowledge of perfect competition and monopoly. CO2: To inculcate knowledge of monopolistic competition. CO3: Students will learn the concepts of oligopoly and price discrimination. CO4: Enable students about the game theories in microeconomics.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Perfect competition: its features, price determination, equilibrium of firm and industry in market period, short run and long run; Shut down point, short period and long period supply curves.							CO1
•	Monopoly: Meaning, Assumptions, equilibrium of the monopolist in short and long run, monopolypower, supply curve.							CO1
•	Price discrimination: meaning, degrees, conditions and equilibrium in discriminating monopoly, monopoly control and regulation.							CO1
Unit 2								CO2
•	Monopolistic competition: meaning, assumptions, product differentiation and demand curve, firm and group equilibrium;							CO2
•	Selling costs, excess capacity, Dumping.							CO2
•	Price determination under monopsony and bilateral monopoly.							CO2

Unit 3		CO3
•	Oligopoly: meaning, features, causes for the existence of oligopoly, approaches to the determination of price and output under oligopoly	CO3
•	Non-Collusive Oligopoly: Cournot, Bertrand, and Kinked demand curve model.	CO3
•	Collusive Oligopoly: Cartels and price leadership models.	CO3
Unit 4		CO4
•	Game Theory: basic concepts; Prisoner's Dilemma; competitive strategy: dominant strategies and Nash Equilibrium.	CO4
•	Concepts of expected value and uncertainty, markets with asymmetric information-adverse selection, moral hazards, agency problems	CO4
Text Books	1. Bernheim, B. D., M. Whinston and A. Sen. *Microeconomics*. Tata McGraw-Hill Education. 2. Koutsoyiannis, A. *Modern Microeconomics.* Palgrave Macmilian, Second Edition, 2003. *3.* Lipsey, *G.* and K.A. Chrysal. *Economics.* Oxford University Press. 2004. 4. Mankiw, N.Gregory. *Principles of Economics.* Worth Publishers. 2007. Seventh Edition. 5. Salvatore, D. *Microeconomics: Theory and Applications.* Oxford University Press. 2008 *6.* Henderson & Quant *Microeconomic Theory, A Mathematical Approach.* *7.* Samuelson, P.A. and W.D. Nordhaus. *Economics.* Tata McGraw Hill. 2005.	

L	T	P	Credits
4	1	0	5

Course Code	ECN106							
Course Title	Macroeconomics – II							
Course Outcomes	CO1: To assimilate the notion of Aggregate demand and Aggregate supply in the Economy CO2: To understand the concept and theories of consumption function and investment CO3: Students will learn the working of multiplier and its effects. CO4: To strengthen the awareness about the basic economic issues like inflation, unemployment and trade cycle.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Basic Concepts: Full employment and various types of unemployment.							CO1
•	Aggregate demand and aggregate supply functions.							CO1
•	Effective demand: Determinants of effective demand, determination of effective demand, importance of effective demand.							CO1
Unit 2								CO2
•	Keynesian Economics: Keynes consumption function; saving and investment functions.							CO2
•	Psychological law of consumption							CO2
•	Determination of income, employment, and output in Keynesian frame work in a two sector, three sector and four sector economy. Paradox of thrift.							CO2
Unit 3								CO3

•	Multiplier: Static and Dynamic analysis. Balanced – budget multiplier. Foreign trade multiplier.	CO3
•	Theories of Consumption: Absolute Income Hypothesis; Relative Income Hypothesis; Permanent Income Hypothesis.	CO3
Unit 4		CO4
•	The Marginal Efficiency of Investment, Relationship between the MEC and MEI, Factor affecting inducement to investment;	CO4
•	Classical theory of investment; Keynesian theory of investment; Acceleratortheory of investment.	CO4
Text Books	1. Ackley, G. *Macro Economics Theory and Policy*. Macmillan publishers. 1978. 2. Branson, William H. *Macro-Economic Theory and Policy.* Indian edition. 3. Dornbush, R., S. Fisher and R. Startz. *Macro Economics*. Tata McGraw Hill. 2004. 4. Rana, K.C. and K.N. Verma. *Macro-Economic Analysis*. Vishal Publishing Co. 2014. 5. Shapiro, Edward. *Macroeconomic Analysis*. Galgotia Publications. 1999. Indian edition.	

L	T	P	Credits
4	0	0	4

Course Code	ECN201							
Course Title	Microeconomics – III							
Course Outcomes	CO1: Students will get knowledge about factor pricing and understand the theories of rent determination. CO2: Students will able to get knowledge about wages, interest, profit and their determination. CO3: Enable students to now about Edgeworth box and Walras Law. CO4: Students will learn welfare economics concepts and importance.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Factor Pricing: Marginal productivity theory of distribution and determination of factor prices under different market forms;							CO1
•	Economic Rent: concepts (such as quasi rent etc.) and theories of rent determination - Ricardian and Modern theory.							CO1
Unit 2								CO2
•	Wages and its determination.							CO2
•	Interest: Classical and Loanable fund theory							CO2
•	Determination of profit and theories of profit.							CO2
Unit 3								CO3
•	Edgeworth box: 2 good, 2 factor, 2 consumer analysis and Pareto optimality conditions							CO3

•	Walras Law; Equilibrium and efficiency	CO3
•	Grand Utility possibility frontier.	CO3
Unit 4		CO4
•	Welfare Economics: Concepts, Compensation Principle (Kaldor-Hicks)	CO4
•	Social Welfare Function	CO4
•	Theory of Second best, Arrow' s Impossibility.	CO4
Text Books	1. Bernheim, B. D., M. Whinston and A. Sen. *Microeconomics*. Tata McGraw-Hill Education. 2. Koutsoyiannis, A. *Modern Microeconomics.* Palgrave Macmilian, Second Edition, 2003 *3.* Lipsey, *G.* and K.A. Chrysal. *Economics.* Oxford University Press. 2004. 4. Mankiw, N.Gregory. *Principles of Economics.* Worth Publishers. 2007. Seventh Edition. 5. Salvatore, D. *Microeconomics: Theory and Applications.* Oxford University Press. 2008 *6.* Samuelson, P.A. and W.D. Nordhaus. *Economics.* Tata McGraw Hill. 2005.	

L	T	P	Credits
4	0	0	4

Course Code	ECN202							
Course Title	Macroeconomics – III							
Course Outcomes	CO1: Develop an understanding about the equilibrium in product and money markets. CO2: Understand different trade cycles theories and inflation theories. CO3: Students will understand the Open Economy models. CO4: Students will learn the importance of monetary and fiscal policy.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Equilibrium in product and money markets: IS and LM functions, changes in IS and LM functions.							CO1
•	ISLM General equilibrium changes in general equilibrium							CO1
•	Elasticity of IS and LM functions and monetary and fiscal policies.							CO1
Unit 2								CO2
•	Trade Cycles: Features, Keynes' view on trade cycle, Schumpeter, Kaldor Samuelson, Hicks models,control of trade cycle.							CO2
•	Inflation: Causes, consequences and cures, theories of inflation: Classical, Keynesian, Modern theory of Inflation (demand Pull and Cost push inflation)							CO2
•	Inflation – unemployment trade off.Natural rate of unemployment.							CO2

Unit 3		CO3
•	Open Economy models: Short run open economy model, nominal exchange rate and real exchange rate	CO3
•	Mundell-Fleming model and exchange rate determination, purchasing power parity.	CO3
Unit 4		CO4
•	Monetary Policy: Instruments, objectives and effectiveness in recession and boom.	CO4
•	Fiscal Policy: Instruments and full employment; budget surplus; problems of stabilization policy.	CO4
•	Recent Developments in Macro Economics	CO4
Text Books	1. Ackley, G. *Macro Economics Theory and Policy*. Macmillan publishers. 1978. 2. Branson, William H. *Macro-Economic Theory and Policy.* Indian edition. 3. Dornbush, R., S. Fisher and R. Startz. *Macro Economics*. Tata McGraw Hill. 2004. 4. Rana, K.C. and K.N. Verma. *Macro-Economic Analysis*. Vishal Publishing Co. 2014. 5. Shapiro, Edward. *Macroeconomic Analysis*. Galgotia Publications. 1999. Indian edition.	

L	T	P	Credits
4	0	0	4

Course Code	ECN203							
Course Title	Statistics – I							
Course Outcomes	CO1: To study the tabular and graphical presentation of the data CO2: To understand the measures of Central Tendency Dispersion in order to interpret empirical data CO3: To study the index number and its impact on consumer cost of living index. CO4: To understand the concept of correlation and regression analysis.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Definition: Scope, Importance and limitation of statistics.							CO1
•	Classification and Tabulation of data: discrete and continuous one – way and two – way frequency distribution.							CO1
•	Diagrammatic and graphic presentation of Data.							CO1
Unit 2								CO2
•	Measures of Central Tendency; Mean, Median, Mode, GM and HM, properties, merits and demerits.							CO2
•	Measure of Dispersion: Absolute and Relative measures of dispersion-Range, Quartile Deviation, MeanDeviation, Standard Deviation and Variance.							CO2
Unit 3								CO3
•	Index Numbers: Meaning scope and limitation of index numbers, problems in construction of index numbers.							CO3

•	Tests of Index numbers (time reversal and factor reversal tests), Weighted price and quantity index numbers using aggregate method: Laspeyre's, Paasche's, Fisher's Formulae, cost of living index numbers.	CO3
•	Tests for the consistency of index numbers. Use the index numbers to various fields.	CO3
Unit 4		CO4
•	Correlation: meaning, Types, importance, Methods to measure – Scatter Diagram, Karl Pearson's productmoment and spearman's rank correlation.	CO4
•	Regression: Meaning, simple regression, least squares principle, properties of correlation and regressioncoefficients.	CO4
Text Books	1. Nagar A.L. and R.K. Das. *Basic Statistics*. Oxford University Press. 1976 2. Gupta, S.C. *Fundamentals of Statistics*. Himalaya Publishing House. New Delhi. 2013. 3. Gupta, S.P. *Statistical Methods.* Sultan Chand and Sons. New Delhi. 2012. 4. Gupta C.B. *An Introduction to Statistical Methods*. Vikas Publishing House. New Delhi. 2009. 5. Spiegel, M.R. *Theory &Problems of Statistics*. McGraw Hill. 2009.	

L	T	P	Credits
4	0	0	4

Course Code	ECN204							
Course Title	Development Economics							
Course Outcomes	CO1- To enable students to understand the basic concepts of Economic Growth and Development CO2- To examine the different tools for measuring economic growth and development. CO3- To impart knowledge about theoretical framework of Growth and Development under different Schools of economic thought. CO4- students will understand the concept of capital formation and importance of foreign aid.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Economic Development: Meaning and its evolution, Sustainable development goals.							CO1
•	Growth vs. Development- significance, objectives and core values. Characteristics of Development.							CO1
•	Indicators of Development: GDP as measure of welfare, Social and Economic indicators, Physical QualityLife Index, Human Development Index.							CO1
Unit 2								CO2
•	Strategies of Development: Theory of Balanced and Unbalanced Growth, Theory of Big Push, Critical Minimum Effort Thesis.							CO2
•	Models of Structural Change: Lewis model of unlimited supply of labour, Nurkse' Model, Fei and Ranis Model.							CO2

Unit 3		CO3
•	Dualistic Development: Social and Technological Dualism.	CO3
•	Models of Growth: Classical Model, Marxian Model, Schumpeter's Model, Harrod- Domar Model, Kaldor's Model, Rostow's stages of growth.	CO3
Unit 4		CO4
•	Capital formation: Meaning and Sources; capital –output ratio; Human Capital: Concept and utilization.	CO4
•	Foreign Aid: Forms and sources; Trade vs. Aid; Transfer of technology.	CO4
Text Books	1. Chew, S.C. and R. A. Denmark. *The Underdevelopment of Development*. Sage Publications. New Delhi.1999. 2. Debraj, Ray. *Development Economics.* Oxford University Press. 1998. 3. Meier, G. M. and J. E. Rauch. *Leading Issues in Economic Development.* Oxford University Press. 2000. 4. Taneja, M. L. and R. M. Myer. *Economics of Development and Planning.* Vishal Publications. 2014. 5. Thirlwall, A.P. *Growth and Development.* Palgrave Macmillan Publishers. 7th edition. 6. Todaro, M. P. and Stephen C. Smith. *Economic Development.* Pearson Publications. 2011.	

L	T	P	Credits
4	0	0	4

Course Code	ECN205							
Course Title	Regional Economics with Special Reference to Punjab Economy							
Course Outcomes	CO1: Students will learn about regional economics concepts, problems and policies. CO2: Students will be able to understand structural changes in Punjab economy. CO3: This will help in understanding agriculture and industrial growth and their importance in Punjab economy. CO4: Students will learn how to solve problem of resource mobilization & fiscal crisis in Punjab.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								
•	Regional Economics: Concept, Scope, and framework; Regional economic problems; Location factors;							CO1
•	Different Approaches to study Regional Economics; Location of places & their problems; Nature of Regions and relation of activities within a region							CO1
•	Regional policy & objectives.							CO1
Unit 2								CO2
•	Structural Changes in Punjab Economy: Agricultural in Punjab, Growth & productivity Green Revolution; role, performance & implications;							CO2
•	Agricultural diversification, rationale, constraints, and prospectus;							CO2
Unit 3								CO3

•	Industry in Punjab: Industrial development – Pattern, performance, constraints & challenges; Small–scale industry role, problems & prospects;	CO3
•	State & industrial development	CO3
Unit 4		CO4
•	Development of transport and banking in Punjab. Finances of Punjab State; Sources of revenue and heads of expenditure;	CO4
•	Problems of resource mobilization & fiscal crisis in Punjab.	CO4
Text Books	1.Hoover, F.M. : An Introduction to Regional Economics. 2.Richardson, H.W. : Regional Economics. 3.Johar, R.S.& J.S. Khanna : Studies in Punjab Economy. 4.Raikhy, P.S. & S.S. Gill : Resource Mobilization and Economic Development: A Regional Perspective. 5.Govt. of Punjab : Statistical Abstracts. 6.Bawa R.S. & P.S.Raikhy : Punjab Economy : Emerging Issues	

L	T	P	Credits
4	0	0	4

Course Code	ECN206						
Course Title	**Money and Banking**						
Course Outcomes	**CO1.** Understand nature, functions and growth of money, Supply creation of money and theories of demand for money, **CO2.** the process of credit creation of a commercial bank, the functions of commercial bank. Explain the various functions of central bank, credit policy of India. **CO3.** Application of traditional and modern theories of international trade, understanding of tariff and non-tariff barriers and their equilibrium analysis. **CO4.** Apply functions, provisions of international trade system and functions to facilitate the global trade. Students will be able analyze impact of WTO on current global trade in detail						
Examination Mode	Theory						
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Money: Introduction							CO1
•	Nature and functions of money							CO1
•	money and near money							CO1
•	Demand for money							CO1
•	Fisher, Cambridge, Keynesian theories							CO1
•	Supply of money, mechanics of money supply creation							CO1
•	measures of money supply in India							CO1
Unit 2	Rate of Interest							CO2
•	Meaning and Classification of Interest							CO2

•	Determination of interest rate	CO2
•	Factors affecting the level and structure of interest rates	CO2
•	Theories of interest: Classical theory of interest	CO2
•	Keynesian theory of interest	CO2
Unit 3	Commercial Banking	CO3
•	Meaning and types of commercial banks	CO3
•	Credit creation process of commercial banks	CO3
•	Central Banking: Meaning and functions	CO3
•	Techniques of credit control with special reference to India	CO3
Unit 4	Monetary system	CO4
•	Monetary Policy: Targets and indicators	CO4
•	macroeconomic objectives	CO4
•	Monetary policy in less developed countries	CO4
•	Indian Monetary and Credit System	CO4
•	System of note-issue; computation of money supply by the RBI	CO4
•	Problems and working of money and capital markets	CO4
Text Books	Sundram, K.P.M. *Money, Banking, Trade and Finance*. Sultan Chand & Sons. New Delhi. 2014	

L	T	P	Credits
4	0	0	4

Course Code	ECN207							
Course Title	Statistics – II							
Course Outcomes	CO 1: Students study the basics of statistical inference. CO 2: Create and conduct an empirical research project in Economics CO 3: To understand hypothesis testing and research methodology CO 4: To acquire thorough understanding of data analysis, statistical tools and research methodology that facilitate transition to higher research programs like M.A/MSc and PhD.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Correlation and Regression Analysis: Partial and multiple correlation coefficients: Derivations, application and properties.							CO1
•	Fitting of multiple regression by least squares technique stress on numericalexamples.							CO1
Unit 2								CO2
•	Skewness, Moments and Kurtosis: Introduction, Difference between dispersion and Skewness Tests of Skewness, Absolute measure of Skewness, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness Kelly's coefficient of Skewness.							CO2
•	Moments about arbitrary origin, Central Moments, Momentsabout zero. Measures of Kurtosis.							CO2
Unit 3								CO3

•	Time Series Analysis: Meaning, Components: Models, economic significance of time series, methods of estimating trend and seasonal variations.	CO3
•	Growth Curves**:** Properties, methods of estimation andapplications of parabolic, geometric, exponential, modified exponential, Gompertz and logistic growthcurves.	CO3
Unit 4		CO4
•	Probability: Definition (classical and empirical only), laws of probability, conditional probability, and independence of events (applications only)	CO4
•	Concept of random variables, probability density and massfunction, expectation, moments, moment generating function, properties (without proof).	CO4
Text Books	1. Nagar A.L. and R.K. Das. *Basic Statistics*. Oxford University Press. 1976. 2. Gupta, S.C. *Fundamentals of Statistics*, Himalaya Publishing House. New Delhi. 2013. 3. Gupta, S.P. *Statistical Methods.* Sultan Chand and Sons. New Delhi. 2012. 4. Gupta C.B. *An Introduction to Statistical Methods*. Vikas Publishing House. New Delhi. 2009. 5. Spiegel, M.R. *Theory &Problems of Statistics*. McGraw Hill. 2009.	

L	T	P	Credits
4	0	0	4

Course Code	ECN208							
Course Title	Mathematics for Economists – I							
Course Outcomes	CO1: Students will be well versed with identifying various mathematical functions and their applications at course completion. CO2: Mathematical outcomes will be interpreted well in terms of economics. CO3: Students will get to learn applications of mathematical tools to economy. CO4: A basic understanding of this course is essential for solving problems pertaining to economic theory where mathematics is used as a tool							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	The straight line, Mathematical modelling, Applications: Demand, Supply, Cost, and Revenue.							CO1
•	Translations of linear Functions, elasticity of demand, Supply and Income, Budget and cost constraints,Excel for linear Functions.							CO1
Unit 2								
•	Simultaneous equations: Solving simultaneous equations, Equilibrium and break even, Consumer andproducer surplus							CO2
•	Non-linear functions and applications; Quadratic, Cubic and other polynomial functions. Exponential functions.							CO2
Unit 3								
•	Arithmetic Progression; Definition nth term of an A.P, sum of n terms, Arithmetic mean, A.M. between two numbers, application of A.P. series							CO3

•	Geometric Progression; Definition, nth terms of G.P. series, sumof n terms, Geometric mean between two numbers, Application of G.P. series	CO3
Unit 4		
•	Financial Mathematics: Simple interest, compound interest and annual percentage rates, depreciation, net present value and internal rate of return	CO4
•	Annuities, debt repayments, Sinking funds, the relationshipbetween interest rate and the prices of bonds.	CO4
Text Books	1. Bradley T. Paul Patton. *Essential Mathematics for Economics and Business*. Wiley Publication. 2014. 2. Chiang, A.C. *Fundamental Methods of Mathematics Economics*. McGraw Hill. 2005. 3. Kandoi, B. *Mathematics for Business and Economics with Applications.*Volume-1. Himalaya Publishing House. New Delhi. 2011. 4. Kandoi, B. *Mathematics for Business and Economics with Applications.*Volume-1I. Himalaya Publishing House. New Delhi. 2011. 5. Yamane, T. *Mathematics for Economist.* Prentice Hall of India. New Delhi. 2001.	

L	T	P	Credits
4	0	0	4

Course Code	ECN301							
Course Title	Agricultural Economics							
Course Outcomes	**CO1:** Understand the nature, importance and role of agriculture in Indian economy and reasons for backwardness. **CO2:** Need, role and importance of agriculture credit. Various institutions available for credit, land reforms done by the government. **CO3:** New agriculture technology and its impact on various factors related with agriculture. **CO4:** Structure, type and defects of agriculture marketing in India. Agriculture price policy and mobilization of agriculture surplus.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Agriculture Economics in the economy							CO1
•	Nature, scope of agriculture and its importance in economics							CO1
•	Role of agriculturein economic development							CO1
•	Reasons for backwardness of Indian agriculture							CO1
•	Transforming traditional agriculture							CO1
•	Farming Systems: Family farming, co-operative farming, collective farming and state farming							CO1
•	Farm size and productivity							CO1
Unit 2	Agricultural credit							CO2
•	Need, role of co-operative and commercial banks							CO2

•	Land reforms- consolidation of holdings	CO2
•	abolition of intermediaries	CO2
•	ceiling on land holdings and tenurial reforms	CO2
•	need, nature and evaluation with special reference to India	CO2
Unit 3	New agricultural technology	CO3
•	Its impact on production	CO3
•	Its impact on income distribution and labour absorption	CO3
•	Negative consequences of new agricultural technology in the context of Punjab	CO3
•	Crop diversification – Need, progress and problems	CO3
Unit 4	Agricultural Marketing in India	CO4
•	Structure, types and defects of agriculture markets in India	CO4
•	Marketing functions, marketing margins,marketed surplus and marketable surplus	CO4
•	Factors affecting marketed surplus	CO4
•	Agricultural Price Policy: Need and objectives	CO4
•	Mobilization of agricultural surpluses	CO4
•	Terms of tradebetween agriculture and industry	CO4
•	Agricultural taxation in India	CO4
Text Books	1. Sourth Worth, H.M. and John Sten, B.F. *Agricultural Development and Economic Growth* (1967) 2 Sadhu, A.N. and Amarjit Singh. *Fundamentals of Agricultural Economics*, Himalaya Publishers.New Delhi.	

L	T	P	Credits
4	0	0	4

Course Code	ECN302							
Course Title	Indian Economy							
Course Outcomes	**CO1.** Develop ideas of the basic characteristics of Indian economy, its potential on natural resources. **CO2.** Understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development. **CO3.** Understand agriculture as the foundation of economic growth and development, analyze the progress and changing nature of agricultural sector and its contribution to the economy as a whole. **CO4.** Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Structure of Indian Economy							CO1
•	National Income and Trends, Sectorial contribution, Inter-state variation ofNational income in India							CO1
•	Capital Formation and Economic Development in India							CO1
•	Human resources and economic development in India: Size and growth rate of population in India							CO1
•	Demographic features of India's Population, Population Policy in India, Family Planning and welfareprogramme in India.							CO1
•	Poverty Line and various measures to control Poverty							CO1
Unit 2	Economic Planning in India							CO2

•	Review of first ten Five Year Plans in India	CO2
•	Resources mobilization during different plans	CO2
•	Eleventh five-year plan: objectives, target and achievement and its critical analysis	CO2
•	Twelfth five-year plan: objectives, target and achievement, issues for approach to the twelfth plan	CO2
Unit 3	Basic Issues in Agriculture	CO3
•	Role, nature and Emerging trends in agriculture	CO3
•	Factors determining productivity and Remedies measures to raise agriculture productivity inIndia	CO3
•	Agriculture sustainability and development during plan period	CO3
•	Issues in Industrial Development: Industrial development during planning period	CO3
•	Review of Industrial policy of 1948, 1956, 1977 and new industrial policy 1991	CO3
•	Small scale and Cottage industries in India and MSME	CO3
•	Public sector in India-its role, growth, performance, problems; Issue of privatization.	CO3
Unit 4	External Sector: India's foreign trade	CO4
•	features, composition and direction of Indian foreign trade	CO4
•	India's balance of payments position in India	CO4
•	Foreign Trade policy in India	CO4
•	Current Global slowdown and financial turmoil and itsimpact on Indian economy	CO4
Text Books	1. Kapila, Uma, Indian Economy: Programme and Policies, Academic Foundation, New Delhi, 2015. 2. Dutt, Ruddra and, K.P.M. Sundharam. *Indian Economy*. New Delhi: S. Chand and Company Ltd.2015. 3. Misra, S.K. & V.K. Puri. Indian Economy. Himalayan Publishing House. 2015.	

L	T	P	Credits
4	0	0	4

Course Code	ECN304							
Course Title	Statistics – III							
Course Outcomes	CO1: Students will learn theoretical distribution and derivation with numerical. CO2: Students will get detailed knowledge about sampling concepts. CO3: Enable the students to understand theories of estimation. CO4: It makes the students to understand the testing of hypothesis.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Theoretical Distribution; binomial, Poisson and normal distributions							CO1
•	Derivation with numerical examples based upon these distributions and their fitting.							CO1
Unit 2								CO2
•	Sampling: Concepts used in sampling: methods of sampling simple random, systematic, and stratified.							CO2
•	Point estimation: Concept of random sampling, meaning of an estimator; properties of a good estimator;methods of estimation.							CO2
Unit 3								CO3
•	Theories of estimation; Point Estimation, Interval Estimation.							CO3
•	Concepts of null and alternative hypothesis;types of errors; some elementary tests based on above sampling distributions.							CO3

Unit 4		CO4
•	Testing of Hypothesis; Large sample test; Sampling of attributes, Test of significance for difference ofproportion, Single mean, Differences of means.	CO4
•	t- test, chi square and F-test.	CO4
Text Books	1. Gupta, S.C. and V.K. Kapoor. *Fundamental of Applied Statistics*. Sultan Chand and Sons. New Delhi.2010 2. Kapur, J.N. and H.C. Saxena. *Mathematical Statistics*. S. Chand and Company. New Delhi. 1995. 3. Mood, A.M. and F.A. Gray Bill. *Introduction to the Theory of Statistics*. McGraw Hill Company, NewYork. 1963.	

L	T	P	Credits
4	0	0	4

Course Code	ECN305							
Course Title	Mathematics for Economists – II							
Course Outcomes	CO1: Students will be able to understand sets and relations. CO2: Enable the students to understand about differentiation and partial differentiation. CO3: Provide knowledge of maxima, minima and basic trigonometric functions. CO4: Students will have good knowledge about matrices.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								
•	Sets and Relations: Functions-types of function and its application in economics, System of equations.							CO1
•	Limits and Continuity of functions.							CO1
Unit 2								CO2
•	Differentiation: Rules of differentiation, Economic Applications; Marginal revenue, average revenue, totalrevenue, marginal cost, average cost and total cost.							CO2
•	Partial differentiation.							CO2
Unit 3								CO3
•	Maxima and Minima, profit maximization-Economic applications							CO3

•	Basic Trigonometric Functions: Angle – Positive and negative, Trigonometric ratio of angle	CO3
Unit 4		CO4
•	Linear Algebra: Matrices, types, products of matrices, Adjoint of a matrix, Inverse of a matrix, rank of a matrix, determinants	CO4
•	Simultaneous linear equations (Cramer's rule). Inverse method	CO4
Text Books	1. Bradley T. Paul Patton. *Essential Mathematics for Economics and Business.* Wiley Publication. 2014 2. Chiang, A.C. *Fundamental Methods of Mathematics Economics*. McGraw Hill. 2005 3. Kandoi, B. *Mathematics for Business and Economics with Applications.* Volume-I, HimalayaPublishing House. New Delhi. 2011. 4. Kandoi, B. *Mathematics for Business and Economics with Applications.* Volume-II, HimalayaPublishing House. New Delhi. 2011. 5. Monga, G.S. *Mathematics and Statistics for Economics*. Vikas Publication. New Delhi. 2005. 6. Yamane, T. *Mathematics for Economist.* Prentice Hall of India. New Delhi. 2001. 7. Aggarwal & Joshi. *Mathematics for Economists*	

L	T	P	Credits
4	0	0	4

Course Code	ECN306							
Course Title	Public Finance							
Course Outcomes	CO1. Understand the sources of finance both public and private, demonstrate the role of government to correct market failures and possible advantage of public financing. CO2. Understand the possible burden, benefits and distribution of various types of taxes among various classes of people, know the general trend and impact on general welfare and arouse them to suggest good and bad tax system. CO3. Understand the needs of public borrowing from all possible sources to meet necessary public investment/expenditures. Also be alerted to find sources for repayment. CO4. Deliver effectively the preparation of budget and how they are passed in the house. Understand the changes in size and flexibility of state and central budget along with the role played by Finance							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								
•	Introduction: Nature and scope of public finance, categories of revenue, fiscal functions (allocation,distribution and stability), meaning of public sector and public expenditure.							CO1
•	Market Performance: Meaning of efficiency, externalities, private versus public good – their efficientprovision, merit goods.							CO1
Unit 2								CO2
•	Taxation: Requirements for a good tax structure; benefit principle, ability to pay principle, equity(horizontal and vertical);							CO2

•	Tax base (income, consumption and wealth); direct vs. indirect taxes, proportional vs. progressive taxes; tax incidence (Concept and measurement).	CO2
Unit 3		CO3
•	Optimal Taxation: Normative versus positive, commodity tax, income tax, analysis of normative andpositive optimal tax.	CO3
•	Public Debt: Concept, objectives and significances of public debt, sources of public borrowings; distinctionbetween internal and external debt.	CO3
Unit 4		CO4
•	Issues in Indian Public Finance: Recent tax reforms, fiscal federalism in India, state and local finances.	CO4
•	International Issues: Global public goods, taxation of international trade, government revenue andsmuggling	CO4
Text Books	1. Musgrave, R. A and P. B Musgrave. *Public Finance in Theory and Practices*, McGraw-Hill International Editions, 1989. 2. Cullis, John and Philip Jones, *Public Finance and Public Choice*, Oxford University Press,Third Edition (Indian), 2010. 3. Rao, M Govind and Mihir, Rakshit. *Public Economics: Theory and Policy Essays in Honor of Amaresh Bagchi*, Sage Publications, 2011. *4.* Srivastava, D K and U, Shankar (ed.). *Development and Public Finance: Essays in Honour of Raja J. Chelliah*, Sage Publications, 2012.	

L	T	P	Credits
4	0	0	4

Course Code	ECN307							
Course Title	International Economics							
Course Outcomes	CO 1 – To enable students to understand the basic concepts related to international trade. CO 2- To familiarize students with policies that influence trade between countries. CO3- To familiarize students about Balance of Payment and intricacies of exchange rate determination. CO 4-To enable students to have a basic understanding of the emerging trends in the field of international economic system.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								
•	Trade Theories and Commercial Policy: Theories of absolute advantage, comparative advantage, and opportunity cost;							CO1
•	Heckscher-Ohlin theory of trade- its main features, assumptions, and limitations.							CO1
•	Terms of trade (concepts and secular deterioration in terms of trade).							CO1
Unit 2								
•	Instruments of Trade Policy: Rationale of protection; Tariff and non-tariff barriers to trade (quota, voluntaryexport restraints, export subsidies, dumping and international cartel);							CO2
•	Tariff and quota (partial equilibriumanalysis).							CO2
Unit 3								CO3

•	Balance of Payments: Concepts and components of balance of payments.	CO3
•	Equilibrium and disequilibriumin balance of payments; various measures to correct deficit in the balance of payment.	CO3
Unit 4		CO4
•	Exchange Rate: Meaning, concept of equilibrium exchange rate and determination; Fixed versus flexible exchange rates: Managed floating exchange rate; Purchasing Power Parity (absolute, relative); Bretton wood systems and its breakdown.	CO4
•	Contemporary Issues: Financial Globalization, Global Financial Crises (2007-2009), IMF its working andoperation.	CO4
Text Books	1. Krugman, Paul, M. Obstfeld and Marc J. Melitz. *International Economics: Theory and Policy.* AddisonWesley Longman. Ninth Edition, 2012. 2. Salvatore, D.K. *International Economics*. John Wiley and Sons. 2013. 3. Soderston, Bo and G. Reed. *International Economics*. Macmillan Publishing House. 1994.	

L	T	P	Credits
4	0	0	4

Course Code	ECN308						
Course Title	**Economics of Health and Education**						
Course Outcomes	CO1: Enable the students to understand the importance of health economics. CO2: To provide knowledge about the demand and supply of health care. CO3: It provides knowledge regarding the formulation health financing policy. CO4: Students will know the importance of education & investment in human capital.						
Examination Mode	Theory						
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Introduction to Health Economics							CO1
•	Meaning, Importance and Essential Features of Health Economics							CO1
•	Concepts: Health, Health Care, Birth rate, Fertility rate, Death rate, IMR, CMR, MMR,							CO1
•	Morbidity rate (Acute and Chronic), Adjusted Life Year (DALY)							CO1
•	Quality Adjusted Life Year (QUALY), Sex Ratio.							CO1
Unit 2	Demand and Supply of Heath Care:							CO2
•	Demand for Health Care							CO2
•	Case of Health Care Accessibility							CO2
•	Socio Economic and Cultural Features							CO2
•	Supply of Health, Health Care Delivery System							CO2
•	Pricing of Health Care							CO2

Unit 3	Health Financing Policy	CO2
•	Health Expenditure – Public & Private – Direct and Indirect	CO3
•	Health Insurance, Concept of User Cost	CO3
•	Health Policy of WHO	CO3
•	National Health Policy – NRHM	CO3
•	Health as a State Subject	CO3
Unit 4	Education & Investment in Human Capital	CO4
•	Rate of Return to Education: Private and Social	CO4
•	Quality of Education, Signaling or Human Capital	CO4
•	Theories of Discrimination	CO4
•	Gender and Caste Discrimination in India	CO4
•	Literacy Rates, School articipation, School	CO4
•	Quality Measures with special reference to India	CO4
Text Books	1. Henderson J.W. *Health Economics and Policy* .Thomson learning. Latest Edition. 2. Ramankutty. *A Premier of Health System Economics*. Allied publications. New Delhi. 2007 3. Ronald G., Ehrenberg and S. Robert and Smith. *Modern Labor Economics: Theory and Public Policy*. Addison Wesley. 2005. 4. William, Jack. *Principles of Health Economics for Developing Countries*. World BankInstitute Development Studies. 1999. 5. World Development Report. *Investing in Health*. The World Bank, 2014.	

L	T	P	Credits
4	0	0	4

Course Code	ECN309							
Course Title	Environmental Economics							
Course Outcomes	CO 1: It will familiarize the students the association of the economy and environment CO 2: Enable students to develop a comprehensive knowledge on the environmental theories for analysis CO3: This would impart the skills essential for understanding and solving the environmental issues. CO 4: Enable the students to impart knowledge about environmental policy tools and disaster management in India							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Introduction to Environmental Economics							CO1
•	Meaning, Scope and Importance of environmental economics							CO1
•	Positive and NormativeEconomics							CO1
•	Type of Environmental Goods							CO1
•	Use value and Nonuse value (existence, altruistic and bequest value)							CO1
•	Public goods, Private goods, Club goods							CO1
•	Open access resources							CO1

Unit 2	Market Failure and Externalities	CO2
•	Theory of Environmental Regulation and Policy	CO2
•	Assignment of PropertyRights and Coase Theorem	CO2
•	Government Interventions: - Command & Control Measures	CO2
•	Marketable Instruments	CO2
Unit 3	Valuation of Environmental Goods and Services	CO3
•	Indirect method (revealed preference)	CO3
•	household production function–travel cost, hedonic pricing	CO3
•	direct/stated preference method – contingent valuation	CO3
Unit 4	Economic Growth and the Natural Environment	CO4
•	Rise and fall of Environmental Kuznets Curve	CO4
•	Sustainable Development: - Meaning of sustainability	CO4
•	weak or strong, goals and indicators of sustainable development	CO4
•	National Accounting and the Natural Environment	CO4
•	Green National Income Accounting with specialreference to India	CO4
Text Books	Roger Perman, Yue Ma, James McGilvray and Michael Common. *Natural Resource andEnvironmental Economics*. Pearson Education/Addison Wesley. 3rd edition. Kolstad, Charles D. *Intermediate Environmental Economics.* Oxford University Press.	

L	T	P	Credits
4	0	0	4

Course Code	ECN310						
Course Title	Mathematics for Economists – III						
Course Outcomes	CO1: Students will learn about difference equations and their applocations. CO2: Students will be able to understand simple integration and their applications. CO3: It enables the students to learn Input – Output Analysis. CO4: Students will learn about linear programming and Duality theorem.						
Examination Mode	Theory						
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Difference equations and their applications; Linear Homogenous Difference Equation of First order.							CO1
•	Non-Linear differential equation of First Order.							CO1
Unit 2								CO2
•	Simple Integration and Applications; Rules of Integration, Methods of Integration, Integration by Parts							CO2
•	Economic Applications: Cost, Revenue, Demand Function, Consumer surplus, Producer Surplus.							CO2
Unit 3								

•	Input – Output Analysis: Assumptions; Transaction matrix: Technical coefficients, Hawkin–Simon Conditions, Metzler condition, open and close input-output systems	CO3
•	Dynamic input output analysis (an introduction).	CO3
Unit 4		
•	Linear Programming: Formulation of linear programming p r o b l e m. Graphical method, Simplex method,Two-phase simplex method, unbounded solution, infeasible solution, degeneracy and cycling problem.	CO4
•	Duality theorem, Solution of primal and dual by simplex method. Dual simplex method.	CO4
Text Books	1. Bradley T. Paul Patton. *Essential Mathematics for Economics and Business*. Wiley Publication. 2014. 2. Chiang, A.C. *Fundamental Methods of Mathematics Economics*. McGraw Hill. 2005. 3.Kandoi, B. *Mathematics for Business and Economics with Applications*. Volume-1, HimalayaPublishing House. New Delhi. 2011. 4. Kandoi, B. *Mathematics for Business and Economics with Applications*. Volume-II, HimalayaPublishing House. New Delhi. 2011. 5. Monga, G.S. *Mathematics and Statistics for Economics*. Vikas Publication. New Delhi. 2005. 6. Yamane, T. *Mathematics for Economist*. Prentice Hall of India. New Delhi. 2001.	

L	T	P	Credits
4	0	0	4

Course Code	ECN401							
Course Title	Industrial Economics							
Course Outcomes	CO1: It makes the students to understand the nature and scope of industrial economics. CO2: Students will understand the industrial efficiency and technical efficiency. CO3: It makes learners to understand the growth of firm and market structure. CO4: It makes the students to understand various theories of Industrial Location							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								
•	Definition: Nature and scope of Industrial Economics.							CO1
•	History and development of industrial Economics.							CO1
•	Basic Concepts: Firm, industry, Market, Market structure, Market power, passive and active behavior of the firm.							CO1
Unit 2								CO2
•	Conceptual framework for the study of Industrial Economics.							CO2
•	Organizational form and alternative motivesof the firm.							CO2
•	Industrial efficiency and technical efficiency. Optimum size of the firm.							CO2

Unit 3		CO3
•	Growth of the firm: Acquisition, diversification, merger constraints on Growth: demand, managerial andfinancial.	CO3
•	Market Structure: Seller's concentration; product differentiation; entry conditions and economics of scale.	CO3
Unit 4		CO4
•	Theories of Industrial Location: Factors affecting location; contributions of weber and Sargent Florance. Location policy in India since Independence.	CO4
•	Industrial concentration and dispersal in India. Industrial growth under planning in India.	CO4
•	Industrial policy and licensing policy, MRTP Act and FERA Act in India.	CO4
Text Books	1. Barthwal, R. R. 2007. *Industrial Economics: An Introductory Text Book*. New Age International.New Delhi. 2. Ferguson, P. R.1998. *Industrial Economics: Issues and Prospectus*. New York University Press. 3. Seth, R. 2010, *Industrial Economics.* Ane Book. New Delhi.	

L	T	P	Credits
4	0	0	4

Course Code	ECN402							
Course Title	Labour Economics							
Course Outcomes	CO1: It involves the study of the factors and structure of labor and importance in the economic activities. CO2: It helps to understand the employers demand as well who requires the service of labour CO3: It helps to analyses the wage structure, income and level of employment Co4: Labour economics deals with various aspects of labour organizations, wage bargaining and man power economics.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Introduction to Labour Economics: Meaning, Scope and Importance.							CO1
•	Labour Demand: Nature, Marginal Productivity Theory and demand for labour under different market forms, Short run and Long run labour demand curve for firm and industry; elasticity of substitution;							CO1
•	Marshall's rules of derived demand.							CO1
Unit 2								CO2
•	Labour Supply: Neoclassical Model of labour-leisure choice;							CO2
•	Effects of changes in non-labour income andwage rate on individual equilibrium; role of income and substitution effect, backward bending supply curve;							CO2

•	Individual and market labour supply curve.	CO2
Unit 3		CO3
•	Equilibrium in Labour Market: Analysis of equilibrium under the competitive and non-competitive marketforms.	CO3
•	Unemployment: History of Economic Thought – classical theory, Keynesian, New Classical, Phillips curve,Monetarism; various concepts of unemployment; work participation, labour absorption.	CO3
Unit 4		CO4
•	Rural and Urban Labour Market: Labour Market Reforms in India; Labour Laws in India; Subsistence wageand Minimum Wage Act in India;	CO4
•	Contemporary issues (post liberalization era); Welfare programmes, government wage employment and self-employment programmes.	CO4
•	Human Capital; Labour Mobility; ChildLabour issues; Issues in developing and transition economies.	CO4
Text Books	1. Borjas, George J. *Labour Economics*. McGraw-Hill Irwin. 2013. 2. Gould, J. P. and P. Edward Lazear. *Microeconomic Theory*. AITBS Publishers and Distributors Delhi.2001. 3. Government of India. *Indian Labour Yearbooks (various issues)*, GOI 4. Kar, Saibal and Debabratta, Datta. *Industrial and Labor Economics: Issues in Developing and Transition Countries*. Springer India. 2015. 5. Smith, Stephen. *Labour Economics*. Routledge. 2003	

L	T	P	Credits
4	0	0	4

Course Code	ECN403							
Course Title	**Research Methodology**							
Course Outcomes	CO1: Provide knowledge about data types and sources of data. CO2: Students will gain the knowledge of sample type and size. CO3: To provide knowledge about errors in survey. CO4: Students will learn how to process collected data.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Data types and sources							CO1
•	Qualitative and quantity data							CO1
•	measurement and scales							CO1
•	secondary sources of data and institutions							CO1
•	Sample questionnaires: Measurement and scales							CO1
Unit 2	Sample type and size							CO2
•	Simple random sampling							CO2
•	cluster sampling							CO2
•	stratified sampling and its complications							CO2
•	Determining an appropriate size							CO2
Unit 3	Errors in surveys							CO3

•	Misunderstanding of questions and answers	CO3
•	problem of nonresponse	CO3
Unit 4	Processing of survey data	CO3
•	Cleaning of data and its coding	CO4
•	Ethics and scientific integrity	CO4
•	Standards of conduct, privacy in data	CO4
Text Books	1. Bethlehem, J. (2009). *Applied survey methods: A statistical perspective.* Wiley. 2. Cochran, W. (2008). *Sampling techniques, 3rd ed.* Wiley. 3. Cooper, D., Schindler, P., Sharma, J. (2012). *Business research methods, 12th ed.* McGraw-Hill. 4. Flick, U. (2012). *Introducing research methodology: A beginner's guide to doing a research project*. Sage Publications. 5. Groves, R., Fowler, F., Couper, M., Lepkowski, J., Singer, E., Tourangeau, R. (2009). *Survey Methodology*. Wiley. 6. Kumar, R. (2014). *Research methodology: A step by step guide for beginners, 4th ed.* Sage Publications.	

In hours			
L	**T**	**P**	**Credit**
2	0	0	2

Course Code	ECN404							
Course Title	Research Ethics							
Course Outcomes	On the completion of the course the student will be able to CO1: Understand the basics of philosophy, ethics and scientific conduct. CO2: Develop understanding on publication ethics and publication misconduct. CO3: Gain the knowledge about open access journals CO4: Gather the knowledge about plagiarism and research metrics.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	**Philosophy and Ethics**							CO1
	Introduction to Philosophy- Definition, Nature, Scope.							CO1
	Ethics-Definition, Moral Philosophy, Nature of Moral Judgement.							CO1
	Scientific Conduct-Integrity and Ethics, Ethics with respect to science and research, Intellectual honesty and research integrity,							CO1
	Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP), Redundant publications, Selective reporting and misrepresentation of data.							CO1
Unit 2	**Publication Ethics**							CO2
	Publication ethics: definition, introduction and importance, best practices / standards setting initiatives and guidelines: COPE, WAME, etc., Conflicts of interest.							CO2

	Publication misconduct: definition, concept, Violation of publication ethics, authorship and contributorship, Identification of publication misconduct, complaints and appeals, Predatory publishers and journals	CO2
Unit 3	**Open Access Publishing**	CO3
	Open access publications-Definition and concept	CO3
	Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggested, etc.	CO3
Unit 4	**Database & Research Metrics**	CO4
	Plagiarism software like Tumitin, Urkund and other open-source software tools, Databases-Indexing databases, Citation databases: Web of Science, Scopus, etc.,	CO4
	Research Metrics-Impact Factor of journal as per Journal Citation Report, SNIP, SIR, IPP, Cite Score, Metrics: h-index, g index, i10 index, Altmetrics	CO4
Text Books	1.Bird,A. (2006). Philosophy of Sciences. Routledge 2. MacIntyre, Alasdair (1967). A Short History of Ethics. London 3. P.Chandah. (2018). Ethics in Competitive Research: Do not get Scooped; do not get plagiarized.	

L	T	P	Credits
4	0	0	4

Course Code	ECN405							
Course Title	Global Political Economy							
Course Outcomes	CO1: Understand the basic concepts of global political economy. CO2: Able to understand the concepts of changing dynamics of capitalist production. CO3: Students will learn about the political economy of global trade. CO4: It enables students to understand the era of globalisation and global economic instability and crisis.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Introduction and overview							CO1
•	Perspectives on political economy of globalisation with a historical overview							CO1
Unit 2	Changing dynamics of capitalist production							CO2
•	Organizational forms and Labour processes							CO2
•	Fordist and post-Fordist production regimes							CO2
•	Multinational corporations –evolution, structural form and dynamics							CO2
•	global value chains and production networks							CO2
•	the changing nature of employment, job security and Labour rights in a globalised economy							CO2
Unit 3	The political economy of global trade							CO3
•	Structure and institutions of the international trade regime							CO3

•	The role of finance in the globalised economy	CO3
•	financialisation of the global economy – trends, instruments, features and consequences	CO3
Unit 4	The state in the era of globalisation	CO4
•	Globalisation and the limits of the welfare and developmental states	CO4
•	Global economic instability and crisis	CO4
•	The 2008 global economic crisis – prelude, proximate and long term causes	CO4
•	Possibility of recurring crises	CO4
Text Books	1. Bhaduri, A. (2002). Nationalism and economic policy in the era of globalization. In D. Nayyar (ed.): *Governing globalization: Issues and institutions*. Oxford University Press. 2. Chang, D. (2009). Informalising labour in Asia's global factory. *Journal of Contemporary Asia*, 39, 161-179. 3. Dore, R. (2008). Financialisation of the global economy. *Industrial and Corporate Change*, 17, 1097-1112. 4. Harvey, D. (2005). *A brief history of neoliberalism.* Introduction, Chapters 1-3. Oxford University Press. 5. Winham, G. (2011). The evolution of the global trade regime. In J. Ravenhill (ed.): *Global political economy.* Oxford University Press.	

L	T	P	Credits
4	0	0	4

Course Code	ECN406							
Course Title	Advanced Global Trade Challenges and Opportunities							
Course Outcomes	CO1: Students will able to understand trade policy implications and global value chains. CO2: It enables the students to understand the importance of innovation and digitalization in trade. CO3: Students will understand the concepts political economy and geopolitics of trade. CO4: It will enable them to understand the challenges in trade, trade negotiations and diplomacy.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	**Review of International Economics**							CO1
•	Brief review of key concepts in international economics							CO1
•	Comparative advantage and trade theories							CO1
•	Trade policy and its implications							CO1
•	**Global Value Chains (GVCs)**							CO1
•	Understanding GVCs and their significance							CO1
•	GVC governance and coordination							CO1
•	GVC participation and upgrading strategies							CO1

Unit 2	**Trade and Innovation**	CO2
•	Intellectual property rights (IPR) and trade	CO2
•	Technology transfer and its impact on trade	CO2
•	Innovation-driven trade policies	CO2
•	**Trade in Services and Digital Trade**	CO2
•	In-depth analysis of trade in services	CO2
•	The role of e-commerce and digital trade	CO2
•	Regulatory challenges in the digital economy	CO2
Unit 3	**Trade Policy and Political Economy**	CO3
•	Political economy of trade policy	CO3
•	Lobbying and interest groups in trade	CO3
•	Trade policy-making in a globalized world	CO3
•	**Geopolitics of Trade**	CO3
•	Geopolitical factors shaping trade dynamics	CO3
•	Trade tensions and disputes among major economies	CO3
•	National security considerations in trade policy	CO3
Unit 4	**Trade and Emerging Markets**	CO4
•	Challenges and opportunities in emerging markets	CO4
•	Trade strategies of emerging economies	CO4

•	**Trade Finance and Risk Management**	CO4
•	Financing international trade	CO4
•	Managing currency and financial risks	CO4
•	Trade credit and insurance	CO4
•	**Trade Negotiations and Diplomacy**	CO4
•	Advanced negotiation techniques in trade agreements	CO4
•	Diplomatic skills in trade diplomacy	CO4
Text Books	1. Global Business Today" by Charles W. L. Hill and G. Tomas M. Hult 2. Global Value Chains: Linking Local Producers from Developing Countries to International Markets" by Gary Gereffi 3. International Trade: Theory and Policy" by Paul Krugman and Maurice Obstfeld 4. International Trade: Feenstra and Taylor" by Robert C. Feenstra and Alan M. Taylor 5. Trade, Development and Political Economy: Essays in Honour of Anne O. Krueger" edited by Sadik D. Al-Azm and Naved Hamid	

L	T	P	Credits
4	0	0	4

Course Code	ECN407							
Course Title	The History of Economic Thought							
Course Outcomes	CO1: familiarize the concept mercantilism & Physiocrats and the physiocratic school. CO2: Acquire knowledge of British political economy. CO3: Enabling the students to have depth of socialism. CO4: Enable students to understand Indian economic thoughts.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1								CO1
•	Mercantilism & Physiocrats - Limitations of national resources. Importance of Foreign Conquest, Colonization and Trade, Role of State in Foreign Trade, Definition of Wealth and the ways in which to augment it, Importance of the Balance of Trade.							CO1
•	Works of Francis Bacon, Thomas Mum, Josiah Child, John Cary, Charles Davenant, John Stuart Mill Age of Enlightenment – France, Italy, Scotland.							CO1
•	The Physiocratic school. Definition of surplus. The organization of economic activities and transactions. The Tableau Economique Works of Jacques Turgot, Francois Quesnay, Richard Cantillon.							CO1
Unit 2								CO2

•	British Political Economy - Nature of the Surplus, Source of Value, Measure of Value, Market Prices and Natural Prices, Profits and Wages, Gross and Net Revenue (national income).	CO2
•	Income Distribution, Works of Adam Smith, David Ricardo, Robert Malthus.	CO2
•	Objections raised by J. B. Say, Charles Dupuit, W Stanley Jevons, and Leon Walras, J.M. Keynes	CO2
Unit 3		CO3
•	Socialism - Rise of Socialist ideas, Political background, Ricardian Theory of Rent, Nationalization of Land, French Socialists, Marxism, Marx's writings in theoretical economics.	CO3
•	The Marxian twist, Marxism post – 1991 - Schumpeter's Critique.	CO3
Unit 4		CO4
•	Indian Economic Thought - Early Indian economic thought - Chanakya's Artha shastra - Colonial Economic policies, Unfair treatment of the colonies, Nationalist response, Swadeshi Movement.	CO4
•	Economic ideas of M. G. Ranade, Dadabhay Nowrosjee, Gopal Krishna Gokhale, Dr. B. R. Ambedkar, M.K. Gandhi	CO4
Text Books	1.History of Economic Analysis by Joseph Schumpeter 2.Handbook on the History of Economic Analysis (eds) G. Faccarello and Heinz D. Kurz.	

L	T	P	Credits
4	0	0	4

Course Code	ECN408							
Course Title	**Financial Economics**							
Course Outcomes	CO1: To familiarize the students with the basic concepts in financial economics CO2: To provide comprehensive knowledge on the role of finance and financial systems in operation CO3: The course intends to familiarize the students with the basic concepts in money market and capital market CO 4: To enable students to know the operation of the Indian Financial System and activities in the financial markets.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Financial system and Financial Markets							CO1
•	Financial system-Structure-Functions- Financial markets							CO1
•	Financial Instruments -Financial system and Economic development							CO1
•	Money market-Meaning-Functions							CO1
•	Instruments of money market-Call loans, Collateral loans, Promissory notes, Bills of Exchange, Treasury Bills, Gilt edged securities							CO1
•	RBI in Indian Money market							CO1
Unit 2	Capital Market							CO2
•	Capital market- Meaning – Functions-Structure-Primary and Secondary markets							CO2

•	Instruments of Capital market- Bonds and debentures, Government promissory notes, Public sector bonds	CO2
•	Initial Public Offer-Methods of floatation of shares	CO2
•	Secondary Market- Nature and functions of stock exchanges -Settlement and trading in stock exchange	CO2
•	Players in stock exchanges -Speculators-Bulls, Bears, Lame duck, Stag-Kerb trading, Insider trading- Listing of securities	CO2
Unit 3	Security Market Analysis	CO3
•	Risk-Return on risk-types of risk- Security Evaluation	CO3
•	Fundamental Analysis, Technical Analysis -Fundamental Analysis	CO3
•	Dow Theory, Dow-Jones Index, Elliot Wave Theory	CO3
•	Derivatives-Options, Futures/Forwards, Swaps Construction of Stock market indices	CO3
Unit 4	Indian Financial System	CO4
•	Structure of Indian Financial System-Organization and management of Indian Stock Exchanges	CO4
•	Depositories in India NSDL, CSDL	CO4
•	Development financial institutions	CO4
•	Pension and Provident Funds, National Pension system and PFRDA (Pension Funds Regulatory and Development Authority)	CO4
•	Mutual funds- Venture capital funds- NBFIS, Chit Funds	CO4
•	Credit rating agencies in India	CO4
Text Books	1. Bhole, L M (1999): Financial Institutions and Markets, TATA Mc Graw Hill Co Ltd, New Delhi • 2. Gupta, S B (2007): Monetary Economics Institutions Theory and Policy, Chand and Co Ltd 3.Khan, N Y (1996): Indian Financial system, TATA Mc Graw Hill Co Ltd, New Delhi 4.Bharathi V Pathak(2003):Indian Financial system, Pierson Education, New Delhi.	

L	T	P	Credits
4	0	0	4

Course Code	ECN452							
Course Title	Basic Econometrics							
Course Outcomes	CO1- To provide an understanding of Econometrics CO2- To equip students with knowledge required for the estimation of simple linear regression model and providing a basic idea about the multiple regression model. CO3- To enable them to understand the econometric modeling and multicollinearity. CO4- Students will understand the concepts of autocorrelation and heteroscedasticity.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Nature, Meaning and Scope of econometric							CO1
•	Difference between mathematical economics, statistics and econometrics							CO1
•	Methodology of Econometrics							CO1
•	Difference between correlation and regression							CO1
•	Simple linear regression model (Two variables)							CO1
•	Sources of disturbance terms, assumptions, least squares estimators and their properties							CO1
•	Gauss Markov's theorem							CO1
Unit 2	Multiple regression Model							CO2
•	Definition, assumptions, least–squares estimation							CO2
•	Testing significance of regression coefficients, concepts of R2 and R-2							CO2

•	Functional forms: Estimation of quadratic, semi–log and double log functions	CO2
•	simple and compound rates of growth (applications)	CO2
Unit 3	Econometric Modeling	CO3
•	Specification of regression model	CO3
•	Model selection criterion and Diagonistic testing	CO3
•	Multicollinearity: Problem consequences	CO3
•	test to detect Multicollinearity, remedies	CO3
Unit 4	Autocorrelation and Heteroscedasticity	CO4
•	Nature of autocorrelation and heteroscedasticity	CO4
•	Consequences tests	CO4
•	remedies (elementary treatment)	CO4
Text Books	1. Christopher Dougherty. Introductory Econometrics. Oxford University Press. 2012. 2. Gujarti, D. N. Basic Econometrics. Tata McGraw Hill. 2004. 3. Koutsoyiannis, A. Theory of Econometrics. Palgrave Macmillan.2005.	

L	T	P	Credits
4	0	0	4

Course Code	ECN455							
Course Title	**Operations Research**							
Course Outcomes	CO1: Identify the characteristics of linear programming problems. Understand various methods for solving linear programming problems CO2: Solve transportation problems using different methods. CO3: Students will learn to solve the problems related to assignment. CO4: Understand basic concept of game theory and learn the concepts of project management.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Introduction to OR							CO1
•	Operations research in India, nature, scope							CO1
•	limitation and techniques of OR							CO1
•	Duality-Concept of duality in LPP, Formulation of the dual problem							CO1
•	Rules for constructing the dual problem, Primal-Dual relationship							CO1
•	Interpreting the Primal-Dual relationship, -Dual of the Dual is Primal, Dual Simplex, Steps in Dual Simplex							CO1
•	Sensitivity Analysis: Sensitivity analysis, Limitations of Sensitivity analysis							CO1
Unit 2	Transportation Model							CO2
•	Introduction, Optimal solution of Transportation problem							CO2
•	Methods for initial basicfeasible solutions- NWCM, LCM, VAM							CO2

•	Optimality Tests- Stepping stone method, Modified distributionmethod	CO2
•	Degeneracy in Transportation problem	CO2
•	Profit maximization in Transportation problem,	CO2
•	Unbalanced Transportation problems, Trans shipment problem.	CO2
Unit 3	Assignment Model and	CO3
•	Introduction, Mathematical Formulation	CO3
•	Hungarian method [Minimization method, Maximization case in Assignment Problems	CO3
•	Travelling Salesman Problem, Un-balanced Assignment Problem, Air Crew assignment	CO3
•	Prohibited assignment/ Constrained assignment problem, LPP formulationof Assignment Problem	CO3
•	Inventory Control: Meaning, Inventory decisions, Types of Inventory, Factors affecting IC policy	CO3
•	Objectives of IC, Scope of IC, IC systems- P& Q	CO3
•	Inventory Models-Deterministic models (EOQ), Price break approach, Safety stocks- factors & methods, Approaches to IC- ABC, VED.	CO3
Unit 4	Game Theory	CO4
•	Introduction, Types of strategy, The Maximin-Minimax principle	CO4
•	Saddle point, Types of problems-Games with pure strategies	CO4
•	Games with mixed strategies (8 methods), limitations of game theory	CO4
•	Network Analysis- PERT and CPM- Introduction	CO4
•	Objectives of Network Analysis, Applications of Network Model	CO4
•	ActivityTimes & Critical Path Computation of Critical Path Slack & Float	CO4
•	PERT- Steps & computing variance, Merits & demerits of PERT, CPM- Time estimating & Limitations	CO4
•	Project Cost analysis- Direct & indirect costs, The lowest cost schedule, Crashing of jobs, Allocation & leveling of resources (through CPM)	CO4

Text Books	1. Kalavathy, S. *Operations Research*. Vikas Publishing House. New Delhi. 2. Kapoor, V.K. *Operations Research*. Sultan Chand & Sons. New Delhi. 3. Paneerselvam, R. *Operations Research*. Prentice Hall of India. New Delhi 4. Vohra, N.D. *Quantitative Techniques in Management*. Tata McGraw Hill Publishing Company Ltd.	

L	T	P	Credits
4	0	0	4

Course Code	ECN456							
Course Title	Data Analysis							
Course Outcomes	CO1: Students will learn to represent and analysis of data of real-world problems. CO2: Students will learn about statistical software's available for data analysis. CO3: understand visualization and representation using software's. CO4: To understand simple estimation techniques and test.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Introduction to the course							CO1
•	How can the representation and analysis of data help us study real-world problems							CO1
•	Publicly available data sets							CO1
Unit 2	Using Data: Available statistical software							CO2
•	steps in data storage							CO2
•	organization and cleaning							CO2
Unit 3	Visualization and Representation							CO3
•	Alternative forms of presenting data							CO3
•	Alternative forms of summarizing data							CO3
Unit 4	Simple estimation techniques							CO4
•	tests for statistical inference							CO4

Text Books	1. Levine, D., Stephan, D., Szabat, K. (2017). *Statistics for managers using Microsoft Excel, 8th ed*. Pearson. 2. Tattar, P., Ramaiah, S., Manjunath, B. (2018). *A course in statistics with R.* Wiley.	

L	T	P	Credits
4	0	0	4

Course Code	ECN454							
Course Title	Advanced Econometrics							
Course Outcomes	CO1: Students will understand the concept of dummy variables. CO2: This will help in understanding the Simultaneous Equation Models. CO3: Students will learn Distributed Lag Models. CO4: it will help in understanding basic characteristics of Time Series Data.							
Examination Mode	Theory							
	Continuous Assessment				MSE	MSP	ESE	ESP
Assessment Tools	Quiz	Assignment	ABL/PBL	Lab Performance				
Weightage	10	10	5	-	25	-	50	-
Syllabus								**CO Mapping**
Unit 1	Dummy Variables							CO1
•	Regression on qualitative and quantitative variables							CO1
•	dummy variable trap							CO1
•	structural stability of regression models							CO1
•	Chow test, piecewise linear regression model							CO1
Unit 2	Simultaneous Equation Models							CO2
•	Simultaneous bias, structural versus reduced form							CO2
•	Identification: rank versus order condition, exact and over identifications							CO2
•	triangular model, methods of estimation including indirect least squares							CO2
•	two-stage least squares and three-stage least squares model							CO2
Unit 3	Distributed Lag Models							CO3

•	Formation of expectations	CO3
•	naïve expectation versus adaptive expectations models	CO3
•	partial adjustment models, distributed lag models	CO3
•	Koyck's model, Almon lag, polynomial distributed lag models	CO3
Unit 4	Basic Characteristics of Time Series Data	CO4
•	Random Walk	CO4
•	Testing for Non stationarity and Stationarity	CO4
•	Unit Root Tests	CO4
Text Books	1. Gujarati, Damodar N. Basic Econometrics. New York: McGraw-Hill. 2007. Print. 2. Wooldridge, Jeffrey M. Introductory Econometrics: A Modern Approach. Peking: Cengage Learning. 2009. Print. 3. Brooks, C. Introductory Econometrics for Finance. Cambridge University Press. 2003. First edition	