

# DEPARTMENT OF ECONOMICS

## CHOICE BASED CREDIT SYSTEM (CBCS)

### Learning Outcome-based Curriculum Framework (LOCF) SYLLABUS

#### **B.A. Economics**

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2023 - 2024



#### **MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)**

College with Potential for Excellence

Affiliated to University of Madras

Tambaram

Chennai – 600 059

**MADRAS CHRISTIAN COLLEGE**

## VISION

Madras Christian College aspires to be an  
Institution of excellence transforming lives  
through education with a commitment to service.

## MISSION

Madras Christian College (MCC) with the inspiration of the love  
of God offers to people of all communities' education of the  
whole person, which is congruous with God's revelation in Christ  
of the true nature of humanity and is appropriate to the needs of  
India and of the world.

## Graduate Attributes

The Madras Christian College defines the philosophy underpinning its academic programmes and student life experience on campus through the Graduate Attributes (GA), that describe the knowledge, competencies, values and skills students imbibe for holistic development and contribution to society. These attributes encompass characteristics that are transferable beyond the domain of study into the national and international realm fostered through curricular, co-curricular and extra-curricular engagements.

### **GA 1: Intellectual Competencies**

- Graduates of MCC have a comprehensive and incisive understanding of their domain of study as well as the capability for cross-disciplinary learning.
- They have the ability to apply the knowledge acquired through the curriculum as well as self-directed learning to a broad spectrum ranging from analytical thinking to synthesise new knowledge through research.
- Forming independent individual opinions regarding academic cores and socially relevant issues

## **GA 2: Professional Ethics**

- Graduates of MCC develop ethical and professional behaviour, which will be demonstrated in their chosen careers and constructive citizenship roles.

- They imbibe intellectual integrity and ethics in scholarly engagement and develop a spirit of inclusiveness through interactions with people of special needs and diversity.

### **GA3: Leadership Qualities**

- Graduates of MCC inculcate leadership qualities & attitudes, and team behaviour along democratic lines through curricular, co-curricular and extra-curricular activities
- They develop managerial and entrepreneurial skills to ideate and create new opportunities along with career readiness and capacity to take up various competitive exams.

### **GA 4: Holistic Skill Development**

- Graduates of MCC develop critical thinking, problem-solving, effective communication, emotional and social skills
- They develop digital competency to live, learn and serve in society.

### **GA 5: Cross-Cultural Competencies**

- Graduates of MCC imbibe cross-cultural competencies through engaging with diverse linguistic, ethnic and religious communities providing scope to understand, accept and appreciate individuals at local, national and international levels.
- They develop a global perspective through contemporary curriculum, culture, language and international exchange programmes

### **GA 6: Service-Oriented Focus**

- Graduates of MCC have sensitivity to social concerns and a conviction toward social justice through a commitment to active social engagement.
- They are endowed with a strong sense of environmental awareness through the curriculum and campus eco-system.

### **GA 7: Value-Based Spiritual Development**

- Graduates of MCC are rooted in the principles of ethical responsibility and integrity permeated with Christian values leading to the building of character.
- They develop virtues such as love, courage, unity, brotherhood, industry and uprightness.

## Programme Outcomes

Programme Outcomes (POs) of Madras Christian College define the minimum level that students are expected to do, achieve and/or accomplish in order to graduate from a particular programme. These Outcomes are a framework to assess the nature of learning activity experienced within the programme.

### POs for Under Graduate Programmes

UG Programmes are designed to have the following outcomes:

On successful completion of the Undergraduate programme, the students will be able to

PO	PO	Description of PO	Mapped with GA
PO 1	Language Skills	<ul style="list-style-type: none"><li>• Demonstrate oral and written skills to effectively communicate in English and Languages of their choice</li><li>• Apply reading and listening skills to facilitate access to knowledge resources and understanding</li></ul>	GA1, GA4, GA5
PO 2	Domain Knowledge	<ul style="list-style-type: none"><li>• Acquire knowledge of basic concepts, theories and processes through study of core courses in respective programmes</li><li>• Apply and Analyze domain specific knowledge to emerging areas of academia and industry</li><li>• Assess, adapt and develop domain specific transferrable skills to new/unfamiliar context</li></ul>	GA1, GA3, GA4, GA5
PO 3	Interdisciplinary knowledge	<ul style="list-style-type: none"><li>• Identify and determine relationships across disciplines</li><li>• Acquire and apply interdisciplinary knowledge for</li></ul>	GA1, GA4

		holistic academic development	
PO 4	Digital Skills	<ul style="list-style-type: none"> <li>• Acquire computer skills and their application relevant to classroom and self-directed web-based learning</li> <li>• Familiarize with and use domain-related software resources, computational skills and digital tools for data analysis, visualization and interpretation</li> <li>• Ethically apply digital skills to creatively communicate a wide range of ideas and issues related to academic experiences</li> </ul>	GA1, GA2, GA3, GA4, GA6
PO 5	Analytical skills	<ul style="list-style-type: none"> <li>• Develop the ability to think critically and relate learning to academic, professional and real-life problem solving</li> <li>• Apply empirical knowledge and skills to identify and collect quantitative and qualitative data to analyze and formulate evidence-based suggestions and solutions</li> </ul>	GA1, GA2, GA4, GA6
PO 6	Academic writing & Presentation skills	<ul style="list-style-type: none"> <li>• Formulate and document results obtained in laboratory, case studies, project work, field work and internships</li> <li>• Effectively communicate through engaging presentations using methodologies</li> </ul>	GA1, GA4, GA5

		appropriate to the discipline	
PO 7	Innovation and Creativity	<ul style="list-style-type: none"> <li>• Demonstrate transferable capabilities and intrapreneurial skills that are relevant to the industry and other employment opportunities</li> <li>• Develop entrepreneurial skills and generate intellectual property</li> </ul>	GA1, GA2, GA3
PO 8	Social Engagement and Responsibility	<ul style="list-style-type: none"> <li>• Demonstrate the ability to link classroom learning with social concerns through service learning and outreach programmes.</li> <li>• Enhance positive personality traits to adapt to changing circumstances and demonstrate leadership qualities as an individual and a member of cross-cultural and multi-disciplinary teams.</li> <li>• Appreciate environmental consciousness and sustainability</li> <li>• Draw valuable insights from one's own spiritual tradition and that of others for peaceful coexistence and general wellbeing</li> </ul>	GA1, GA2, GA5, GA6, GA7

### PROGRAM SPECIFIC OUTCOMES (PSO's)\*

#### UG ECONOMICS

At the time of graduation they would be able to:

PSO #	Statement	Mapped with PO#
PSO 1	Gain an in-depth understanding and appreciation of the theoretical foundations of Economics and the historical evolution of economic ideas	PO1, PO2
PSO 2	Understand, compare and contrast the working of the Indian economy and the world economies and examine the interlinkages between them in today's globalized world.	PO1, PO2
PSO 3	Apply the knowledge of Economics and determine how individuals, groups and entities strategically interact with one another in optimizing their economic behaviour.	PO2, PO3
PSO 4	Extend the understanding of Economics to other social sciences and issues of sustainability (environment and social) and propose practical innovative solutions addressing societal needs	PO1, PO2, PO3, PO6, PO7, PO8
PSO 5	Develop and nurture critical analytical thinking and relevant digital skills to sort out issues of social and economic relevance.	PO1, PO3, PO4, PO5, PO7, PO8.

### Curriculum Template for (B.A. ECONOMICS)

(Effective from – 2023-2024)

este	Part	Cou rse code	Course title	Instruc tion hours per Cycle	Durat ion of exam	Marks			Credits
						ICA	ESE	Total	
	Part-I		Language -I	4	3	50	50	100	3
	Part-II		English -I	4	3	50	50	100	3
	Part-III. a Major-1		Micro Economic Theory - I	5	3	50	50	100	5
	Part-III. a Major-2		Linear Algebra for Economics	5	3	50	50	100	5
	Part- III. b Allied-I		Indian Economy : Structure	6	3	50	50	100	5
	Part IV. a		General Course :Principles of Economics / BT /AT	4	3	50	50	100	2
	Part-IV. d		Value Education: Social Ethics	2	3	50	50	100	1
	<b>Total</b>			<b>30</b>					<b>24</b>
	Part-I		Language -II	4	3	50	50	100	3
	Part-II		English -II	4	3	50	50	100	3
	Part-III. a Major-3		Micro Economic Theory - II	5	3	50	50	100	5



	Part-III. a Major-4		Calculus for Economics	5	3	50	50	100	5
	Part- III. b Allied-I		Introduction to Game Theory	6	3	50	50	100	5
	Part IV. a		General Course :Principles of Economics / BT /AT	4	3	50	50	100	2
	Part-IV. d		Value Education: Social Studies/ Gender studies /Christian Studies	2	3	50	50	100	1
	<b>Total</b>			<b>30</b>					<b>24</b>
	Part-I		Language -III	4	3	50	50	100	3
	Part-II		English -III	4	3	50	50	100	3
	Part-III. a Major-5		Macro Economic Theory - I	5	3	50	50	100	5
	Part-III. a Major-6		Development of Economic Ideas	5	3	50	50	100	5
	Part- III. b Allied-II		International Business	6	3	50	50	100	5
	Part IV. b		Personality development (Skill Based)	2	3	50	50	100	-
	Part-IV. c		Environmental Studies	4	3	50	50	100	2
	<b>Total</b>			<b>30</b>					<b>23</b>
	Part-I		Language -IV	4	3	50	50	100	3
	Part-II		English -IV	4	3	50	50	100	3
	Part-III .a Major-7		Macro Economic Theory - II	5	3	50	50	100	5
	Part-III .a Major-8		Statistics for Economics	5	3	50	50	100	5
	Part-III .b Allied-II		Agricultural Economics	6	3	50	50	100	5
	Part IV. b		Personality development (Skill Based)	2	3	50	50	100	3
	Part-IV. b		Interdisciplinary: Economics of Education And Health	4	3	50	50	100	3
	<b>Total</b>			<b>30</b>					<b>27</b>
	Part-III .a Major-9		Public Finance Theory & Practice	6	3	50	50	100	5
	Part-III .a Major-10		Economics of Industry	6	3	50	50	100	5
	Part-III .a Major-11		Econometrics	6	3	50	50	100	5
	Part-III .a Major-12		Economics of Entrepreneurship( With a mini Project)	6	3	50	50	100	5
	Part-IV. b		Computer Training (Skill Based)	2	3	50	50	100	3

	Part-IV . b		General elective: Economy, state and society	4	3	50	50	100	3
	<b>Total</b>			<b>30</b>					<b>26</b>
	Part-III .a Major-13		International Economics	6	3	50	50	100	5
	Part-III .a Major-14		Economics of Institutions	6	3	50	50	100	5
	Part-III .a Major-15		Indian Economy- Policy and Performance	6	3	50	50	100	5
	Part-III .a Major-16		Economics of Money & Banking	6	3	50	50	100	5
	Part-III .a Major-17		Environmental Economics(With a mini Project)	6	3	50	50	100	5
	Part-V Extension activities (Outside class Hours)		Physical Education/NSS/NC C/Sports/Scrub Society/Service Learning Programme/Depart ment Association activities		3	50	50	100	1
	<b>Total</b>			<b>30</b>					<b>26</b>

Sl No	Semester	Number of hours per cycle	Credit
1	Semester I	30	24
2	Semester II	30	24
3	Semester III	30	23
4	Semester IV	30	27
5	Semester V	30	26
6	Semester VI	30	26
	<b>Total</b>	<b>180</b>	<b>150</b>

[illegible]

Course Title		MICRO ECONOMIC THEORY I		
Credits				
Hours / Cycle				
Category		Part	Core	Theory
Semester		I		
Year of Implementation		From the academic year 2023-2024 onwards (this is required as some of the courses may not be revised during particular revision)		
Course Objectives		On completion of the course on Micro economic theory I students should be able to know the objective functions and equilibrium conditions for consumers and producers. Students will also be able to understand how equilibrium price and output are determined in goods as well as factor markets. Students should also know the functioning of markets with perfect and monopoly competition.		
CO #	Course Outcome(s)		PSO Addressed	Bloom's Taxonomy Levels (K1 to K5)
On completing the course successfully, the student will be able to				

<b>CO 1</b>	Recall the basic concepts in Economics and various approaches to study economics	PSO 1	<b>K1</b>
<b>CO 2</b>	Understand consumer behavior with various demand functions and theories such as Indifference Curve analysis, Revealed Preference Theory, Slutsky's theorem and Elasticity of Demand	PSO1 PSO 3	<b>K2</b>
<b>CO 3</b>	Interpret the concepts of production function and structure and supply function	PSO 1 PSO 3	<b>K3</b>
<b>CO 4</b>	Evaluate and understand Cost function and Revenue function, profit function	PSO1 PSO 4	<b>K5</b>
<b>CO 5</b>	Analyze the market structures such as perfect competition, monopoly and monopolistic competition that exist in the economy.	PSO1 PSO 5	<b>K4</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVELS</b>
<b>I</b>	Module– I Introduction to Micro Economics – Difference between Micro and Macro Economics – Difference between Partial and general equilibrium – Static, comparative static and dynamic equilibrium – Inductive and deductive approach – positive and normative approach – concepts – scarcity, choice and opportunity cost – allocation of Resources – Firm and industry.	<b>15</b>	<b>CO1</b>	<b>K1, K2</b>
<b>II</b>	Module– II  a. Demand analysis – Law of demand, factors determining demand – demand function –demand curve – shift and scope of demand curve – elasticity of demand – types – methods to measure elasticity – factors determining elasticity  b. Utility – utility in use, utility in exchange- cardinal utility, ordinal utility – Law of diminishing Marginal Utility.  Indifference curve analysis – consumers' equilibrium – Revealed preference theory – Inverse demand function – consumer surplus-Application of consumer surplus- Deadweight loss – Slutsky's decomposition of Price effect for Normal, Inferior and Giffen goods.	<b>15</b>	<b>CO2</b>	<b>K4,K2</b>
<b>III</b>	Module – III  Production analysis – Factors of Production – Law of variable proportions – Law of Returns to scale – Isoquants – Producer's equilibrium- Cobb- Douglas production function – Economies and Diseconomies of scale – Supply – Producer's supply – Inverse supply function – Supply factors and constraints.	<b>15</b>	<b>CO3</b>	<b>K2,K4,K5</b>

<b>IV</b>	Module – IV Cost function – Types of Costs – Accounting and Economic costs, fixed, variable and sunk cost, Imputed cost, implicit and explicit cost – short run and long run costs- relationship between cost function and production function. Revenue function- Relationship between Price, elasticity and Marginal Revenue.	<b>15</b>	<b>CO4</b>	<b>K3,K4</b>
<b>V</b>	Module – V Market structure a. Perfect competition – Features – Determination of output, Price and Profit under perfect competition. b. Monopoly – Features – Determination of price, output and Profits under monopoly- Impacts of taxes on Monopoly price – Monopoly price discrimination – Dumping - Bilateral monopoly C. Monopolistic competition – Chamberlin’s large group model – Price and non-price competition	<b>20</b>	<b>CO5</b>	<b>K4,K5,K6</b>

#### Prescribed Books/Textbooks

- 1) Pindyck. R. S. and D.L. Rubinfeld, Micro Economics fifth edition prentice Hall 2004.
- 2) Hal. R. Varian, Intermediate Micro Economics, A modern approach W.W. Norton and Company / Affiliated East – West Press (India) 8 th edition 2010

#### References

- 1) Gregory Mankiw.N , Principles of Microeconomics,south Western Cengage learning,5 th edn
- 2) Case & Fair ,Principles of Economics Myeconlab series 8 th Edn
- 3) Koutsoyiannis, Modern Microeconomics,Macmillan Education, 2 nd Edn

#### Suggested Reading

1. Dominick Salvatore, Micro economics Theory and Applications,Oxford University Press,5 th Edn
2. Cullis & Jones,Public finance and Public choice,Oxford University Press 3 rd Edn

#### Web Resources

- 1)[https://www.tutorialspoint.com/managerial\\_economics/theory\\_of\\_production](https://www.tutorialspoint.com/managerial_economics/theory_of_production).
- 2)<https://www.economicscafe.com.sg/economics-lecture-notes-chapter-6/>
- 3)<https://www.yourarticlelibrary.com/economics/demand-and-law-of-demand-useful-notes-on-demand-and-law-of-demand-economics/10626>
- 4)<https://www.economicdiscussion.net/consumer-behaviour/consumers-behaviour-cardinal-utility-analysis-explained-with-diagram/1111>

Correlation of POs/PSOs to each CO and make a corresponding mapping table.

**Course Articulation Matrix**

Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	-	3	-	-	-	-	-	-	3	-	-	-	-	K1
CO 2	-	3	-	-	-	-	-	-	3	-	2	-	-	K2
CO 3	-	3	2	2	-	-	-	-	3	-	2	-	-	K3
CO 4	-	3	2	2	-	-	-	-	3	-	-	2	-	K5
CO 5	-	3	2	2	-	-	-	-	3	-	-	-	2	K4
Wt. Avg.	-	3	2	2	-	-	-	-	3	-	2	2	2	
Overall Mapping of the Course												PO-2.3 PSO-2.25		

## LINEAR ALGEBRA FOR ECONOMICS

<b>Course Code</b>	Will be allotted by COE after the approval in Academic Council		
<b>Credits</b>	5		
<b>Hours / Cycle</b>	5		
<b>Category</b>	Part III (a)	Core	Theory
<b>Semester</b>	I		
<b>Year of Implementation</b>	From the academic year 2023-2024 onwards		
<b>Course Objectives</b>	In most economic analysis , variables are assumed to be related by sets of simultaneous linear equations. The objective of this paper is to make students understand the theory and applications of Linear Algebra in economic analysis.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
On completing the course successfully, the student will be able to			
CO 1	Understand the operations in Vector Spaces and Matrix Algebra	1	K1
CO 2	Explain and interpret economic problems relating to sectoral issues in the economy over time	4,5	K2
CO 3	Apply the concepts of Linear Algebra to Economics	3	K3
CO 4	Analyse the use of techniques of Linear Algebra to test the knowledge in Economics.	3,4	K4
CO 5	Formulate and Estimate Economic problems using techniques of Linear Algebra	4	K5

SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL



I	<p><b>VECTOR ALGEBRA:</b> Vectors – Field – Vector addition and multiplication by scalars - inner product of two vectors – Geometric interpretation – Vector Spaces - Linear dependence and Independence – Basis – Span – Orthogonality – Properties of Vector Space.</p>	15	CO1	K1
II	<p><b>MATRIX ALGEBRA:</b> Introduction to matrix, Types , Matrix operation- addition, subtraction, matrix multiplication, Elementary Transformation – row and column , Augmented matrix – Normal form of a matrix – Row Echelon - Properties of transpose, Determinants, Minors, cofactors, adjoint, inverse, Solving simultaneous linear equations in matrix form, Gaussian method , Inverse method and Cramer’s rule. Application in to Economics : IS – LM analysis – Market Equilibrium ( Two products and Three products markets only).</p>	20	CO1,CO3	K1, K3
III	<p><b>INPUT – OUTPUT ANALYSIS:</b> Rank of a matrix , Characteristic Equation , Eigen values , Cayley – Hamilton Theorem. Input – Output model – Technological Coefficient matrix, Open and Closed Input Output models – Hawkins – Simon Conditions – Solution to Open Input –Output model .</p>	15	CO2,CO5	K2,K5
IV	<p><b>LINEAR PROGRAMMING:</b> Mathematical Formulation , Graphic solutions , Extreme Point Theorem , Slack and Surplus variables , Simplex method ( Two and Three variables only ); The Dual – Transformation of primal to Dual – The Duality</p>	15	CO2, CO4 & CO5	K2, K4 & K5

	Theorem, Applications – Diet Problem.			
V	<p><b>TRANSPORTATION AND ASSIGNMENT PROBLEM:</b> Mathematical formulation of Transportation Problem, Balanced and Un balanced – Initial Basic Feasible Solution – North West Corner Method; Least Cost Method; Vogel’s Approximation Method. Optimum solution by MODI Method. Assignment Problem – structure – optimum solution - Hungarian Assignment Method.</p>	10	CO2, CO4 & CO5	K2, K4 & K5

#### Textbooks:

1. Seymour Lipschutz & Marc Lipson – “Linear Algebra” Schaums Outline Series, 2017.
2. Hadley, G. “Linear Algebra”, Addison-Wesley, Delhi, 1987.
3. Mehta .B.C. & G.M.K. Madnani – “Mathematics For Economists”. Sultan Chand and Sons, 2003.

#### Suggested Reading

1. Knut Sydstaeter & Peter J. Hammond, “Mathematics for Economic Analysis”, Pearson Edition, 2002.
2. S. H. Friedberg, A. L. Insel and L. E. Spence, “Linear Algebra”, Prentice Hall of India, New Delhi, 2004.

#### References:

1. Edward T. Dowling, Theory and Problems of Mathematics for Economists, Schaum’s Outline Series, McGraw Hill, New York.
2. Alpha C Chiang & Kevin Walnwright, “Fundamental Methods of Mathematics For Economics”, McGraw Hill, New York. 4<sup>th</sup> Edition 2005
3. Gupta .P.K. & Manmohan, “Problems in Operations Research”, Sultan Chand and Sons , 1992

#### Web Resources

1. <https://joshua.smcvt.edu/linearalgebra/book.pdf>
2. [https://www.geneseo.edu/~aguilar/public/assets/courses/233/main\\_notes.pdf](https://www.geneseo.edu/~aguilar/public/assets/courses/233/main_notes.pdf)

3. <http://www.stat.uchicago.edu/~lekheng/courses/309f11/theil.pdf>

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2	2	-	-	-	-	-	-	-	2	-	-	-	-	K1
CO 2	3	3	3	3	3	3	3	3	3	-	-	-	3	3	K2
CO 3	-	3	3	-	-	-	-	-	-	-	-	3	-	-	K3
CO 4	3	3	3	-	-	-	3	3	3	-	-	3	3	-	K4
CO 5	3	3	3	-	-	-	3	3	3	-	-	-	3	-	K5
Wt. Avg.	2.75	2.8	3	3	3	3	3	3	3	2	-	3	3	3	-
Overall Mapping of the Course													2.8		

Course Code		INDIAN ECONOMY - STRUCTURE		
Credits		FIVE (5)		
Hours / Cycle		SIX (6)		
Category		Part - III	Allied - 1	Theory
Semester		ONE (1)		
Year of Implementation		From the academic year 2023 - 2024 onwards		
Course Objectives		To understand the various issues and components in the economy To enable the students to realize the problems facing the economic sectors To focus on few important legislations and course of action in Indian economy To analyze the implementation of the schemes and framework of the Indian economy		
CO #	Course Outcome(s)		PSO Addressed	Bloom's Taxonomy Levels (K1 to K5)
On completing the course successfully, the student will be able to				
CO 1	Know the outline of Indian economy during the colonial period and at the time of Independence.		PSO 1	K1
CO 2	Understand the student to the basic characteristics and structure of the Indian economy.		PSO 2	K2
CO 3	Familiarise the students about the five year plans undertaken in the Indian economy		PSO 4	K3
CO 4	Comprehend the New Economic Policy and its components liberalization, privatization and globalization policy.		PSO 4	K4
CO 5	Develop the arguments for and against on economic growth after liberalization		PSO 3	K5

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	Overview of Indian economic development in colonial period – industry – decline of handicrafts - agriculture – land tenure systems - effect of railways- drain of resources by Britain - Indian economy at the time of Independence.	<b>12</b>	<b>CO 1 &amp; CO 2</b>	<b>K1</b>
<b>II</b>	Characteristics of Indian Economy – Natural Resources – Land, Water and Forest Resources - Population – Size and Growth rates, Sex Composition – Rural Urban Migration – Occupational Distribution – Problems of Over population – Population Policy – Infrastructural Development - Unemployment and Mass Poverty. Structural change in Indian economy – Sectoral Composition of NI -Dimensions of Indian economy as an emerging economy.	<b>12</b>	<b>CO 2 &amp; CO 3</b>	<b>K2</b>

<b>III</b>	The arguments for planning in the Indian context - Five Year Plans – goals of Five Year Plans – growth – modernization – self-reliance – equity – role of state – the role of Planning Commission.	<b>12</b>	<b>CO 3 &amp; CO 4</b>	<b>K3</b>
<b>IV</b>	The crisis of 1991- response to crisis – New Economic Policy – Components of New Economic Policy – liberalization – privatization – globalization policy – replacement of Planning Commission with NITI Ayog.	<b>12</b>	<b>CO 4</b>	<b>K4</b>
<b>V</b>	Economic growth after liberalization – driving factors of high growth rates- agriculture- Public investment in agriculture – impact of trade liberalization on agriculture – agricultural production since 1991 – Industry – disinvestment and privatization – arguments for and against privatization - de-reservation for small scale industries – FDI – impact on Indian industrial development.	<b>12</b>	<b>CO 5</b>	<b>K5</b>

#### **Prescribed Books/Textbooks**

1. Uma Kapila (Ed.) Indian Economy Since Independence, 28<sup>th</sup> Edition, Academic Foundation, New Delhi, 2017.
2. Dutt. R. and Sundaram, K. P. M. Indian Economy, 62<sup>nd</sup> Edition, S. Chand & Sons, New Delhi. 2015

#### **References**

1. Agrawal. M.K. and Agrawal A.N.(2015). Indian Economy: Problems of Development and Planning, New Age International Publishers, New Delhi.
2. Ahluwalia, I. J. and IMD Little (Eds.) (1998), India's Economic Reforms and Development, Oxford University Press, New Delhi.
3. Byres, T.J. (Ed.) (1997), The State, Development Planning and Liberalization in India, Oxford University Press, New Delhi.
4. Jalan, B. (2016). The Indian Economy: Problems and Prospects. Viking. New Delhi.

#### **Suggested Reading**

1. Dhingra, I.C. (2006). The Indian Economy: Environment and Policy, S Chand & Sons, New Delhi.
2. Gupta, S.P., (1989). Planning and Development in India: A Critique. Allied Publishers Private Limited, New Delhi.

#### **Web Resources**

<http://planningcommission.gov.in>  
<http://civilaviation.nic.in> <http://mohfw.nic.in> <http://www.indianrailways.gov.in>  
<http://rural.nic.in> <http://morth.nic.in> <http://shipping.gov.in>  
<http://ssi.gov.in> <http://ssi.gov.in> <http://commin.nic.in>

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	1	2	3	-	1	2	2	2	2	2	3	3	3	K1
CO 2	1	2	2	-	2	2	1	2	2	3	3	2	2	K2
CO 3	1	2	3	-	3	2	2	2	2	3	2	2	3	K3
CO 4	1	2	2	-	3	2	2	2	2	2	2	2	2	K4
CO 5	1	2	2	-	2	3	2	3	2	2	2	3	2	K5
Wt. Avg.	1	2	2.4	-	2.2	2.2	1.8	2.2	2	2.4	2.4	2.4	2.4	
Overall Mapping of the Course													2.11	

**Course title: Introduction to Game Theory**

<b>Course Code</b>			
<b>Credits</b>	5		
<b>Hours / Cycle</b>	6		
<b>Category</b>	<b>Part III b</b>	<b>Allied</b>	<b>Theory</b>
<b>Semester</b>	II		
<b>Year of Implementation</b>	From the academic year .....2023-24..... onwards (this is required as some of the courses may not be revised during particular revision)		
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. To create knowledge about the nature of strategic interdependence in agent interactions in economic theory.</li> <li>2. To equip students with theoretical tools to make effective decisions in strategic environment.</li> <li>3. To apply the knowledge gained during the course in solving real world economic problems</li> </ol>		

<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
On completing the course successfully, the student will be able to			
CO 1	Appreciate the nature strategic of interactions among economic agents and challenges it causes for economic modelling.	PSO 1 & PSO 3	K1
CO 2	Gain knowledge about the formal theoretical tools to model strategic interdependence in economics.	PSO 3 & PSO 2	K2
CO 3	Analyse different types of game theoretic scenarios arising out of agent interactions.	PSO 3 & PSO 4	K3
CO 4	Apply game theoretical models to solve market outcomes	PSO 3 ,PSO 4 & PSO 5	K4
CO 5	Build a rigorous platform to learn advanced microeconomics and other fields of strategic interactions in economic theory.	PSO 3 & PSO 5	K5

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	Preliminary concepts-Decision making under strategic interdependence-Strategies and Payoff functions- types of games- Zero sum games and general sum games- two person and n person games- non-cooperative and cooperative game theory – rationality in game theory – Common knowledge rationality- Game theoretic revolution in economics.	<b>10</b>	<b>CO 1 &amp; CO 2</b>	<b>K 1 &amp; K 2</b>

<b>II</b>	Classical normal form games- Assumptions – Nash Equilibrium – Principle of dominance- Weak dominance and strong dominance-Best response functions- Finding Nash Equilibria using iterated elimination of dominated strategies and best response functions- Prisoner’s Dilemma- Battle of Sexes- Chicken Game- Stag Hunt –Cournot’s model of oligopoly-Bertrand’s model of Oligopoly.	<b>15</b>	<b>CO 2 &amp; CO3</b>	<b>K 2 &amp; K 3</b>
<b>III</b>	Randomization of strategies- von Neumann and Morgenstern (vNM) preferences –expected value of a payoff function – strategic game with vNM preferences – mixed strategy profile – Mixed strategy Nash Equilibrium – Finding mixed strategy Nash Equilibria – Zero sum games –minimax theorem – value of a zero sum game – Examples of mixed strategy Nash Equilibrium.	<b>20</b>	<b>CO 2, CO 3 &amp; CO 4</b>	<b>K 2, K3 &amp; K4</b>
<b>IV</b>	Games in extensive form with complete information (GEFCI) – structure of GEFCI – Backward induction – Common Knowledge Rationality – Credible threats and promises-Criticisms of backward induction – Ultimatum game and Centipede game - Sub game perfection – Rubenstein’s bargaining model – Repeated games – Iterated Prisoner’s Dilemma.	<b>15</b>	<b>CO 2, CO 3, CO 4</b>	<b>K2, K3 &amp; K4</b>
<b>V</b>	Random events and incomplete information – Bayesian Games – Bayesian normal form – Bayesian Nash Equilibrium and Rationalizability – Examples- Market for Lemons – Auctions – second price auctions.	<b>15</b>	<b>CO 4 &amp; CO 5</b>	<b>K 3 &amp; K 5</b>

#### Prescribed Books/Textbooks

1. Osborne, Martin J (2012) An Introduction to Game Theory, Oxford University Press, India
2. Watson, Joel (2013) Strategy: An Introduction to Game Theory, Third edition, W.W.Norton& Company
3. Dixit, A.K., Susan Skeath and David H Reiley (2015) Games of Strategy, Fourth Edition, W.W.Norton & Company.

#### References

1. Hargreaves,H.Shaun and Varoufakis,Yanis (2004) Game Theory: A Critical Text, Routledge
2. Gintis, H. and Schecter, S. (2016). Game Theory in Action: An Introduction to Classical and Evolutionary Models, Princeton University Press

#### Suggested Reading

1. Dixit, Avinash and Nalebuff, Barry (2008) The Art of Strategy: A Game Theorist’s Guide to Success in Business and Life, W.W.Norton & Company
2. Schelling, Thomas C (1980) The Strategy of Conflict, Harvard University Press.
3. Axelrod, Robert (1984) The Evolution of Cooperation, Basic Books

#### Web Resources

1. [https://cgi.csc.liv.ac.uk/~rahul/bimatrix\\_solver/](https://cgi.csc.liv.ac.uk/~rahul/bimatrix_solver/)
2. <https://mindyourdecisions.com/GameSolver.html>
3. <https://ocw.mit.edu/courses/14-12-economic-applications-of-game-theory-fall-2012/>



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## PRINCIPLES OF ECONOMICS (GC)

Course Code		191EC1G01 (PRINCIPLES OF ECONOMICS)		
Credits		2		
Hours / Cycle		4		
Category		Part	Elective	Theory
Semester		I and II		
Year of Implementation		From the academic year 2023-24 onwards		
Course Objectives		<ul style="list-style-type: none"><li>• To help students (whose major is not Economics) to understand the how the world around them works in an economic context.</li><li>• To help students understand the building blocks of basic economic theory.</li><li>• To enable the students to understand consumer behaviour, individual demand, utility, goals of the firm and provide a general understanding of how markets function.</li><li>• To enable students of this course understand how the economy in the aggregate works, based on the broad conditions of constraints it faces.</li></ul>		
CO #	Course Outcome(s)		PSO Addressed	Bloom's Taxonomy Levels (K1 to K5)
On completing the course successfully, the student will be able to				
CO 1	Gain a basic understanding of the subject matter of economics		PSO-1	K1
CO 2	Appreciate how the various markets function and how the economy arrives at a theoretical general equilibrium.		PSO-1, PSO-3	K1
CO 3	Gain a macro understanding or perspective of the economy and understand and interpret key terminologies related to macroeconomics.		PSO-1	K1
CO 4	Examine how individuals and groups make basic economic decisions based on the constraints they face.		PSO -1 PSO-3	K4
CO 5	Understand and examine how the real-world functions, by dealing with market imperfections and various market structures.		PSO-1, PSO-3	K4

SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
I	<b>MODULE I: INTRODUCTION TO ECONOMICS</b> The Scope and Method of Economics – The Economic Problem: Scarcity and Choice, Demand and Supply and Market Equilibrium – Demand and Supply Applications – Elasticity.	12	CO1, CO2, CO4	K1, K4

II	<b>MODULE II: THE MARKET SYSTEM: CHOICES MADE BY HOUSEHOLDS AND FIRMS</b> Household Behaviour and Consumer Choice – The Production Process: The Behaviour of Profit-Maximising firms – Short-run costs and Output Decisions, Long-run costs and Output Decisions – Input Demand: The Labour and Land Markets Input Demand: The Capital Market and the Investment Decision – General Equilibrium and the Efficiency of Perfect Competition.	12	CO2, CO4, CO5	K1, K4
III	<b>MODULE III: MARKET IMPERFECTIONS AND ROLE OF GOVERNMENT</b> Monopoly and Antitrust Policy – Oligopoly – Monopolistic Competition Externalities – Public Goods and Social Choice – Uncertainty and Asymmetric Information – Income Distribution and Poverty – Public Finance – The Economics of Taxation.	12	CO2, CO4, CO5	K1, K4
IV	<b>MODULE IV: CONCEPT AND PROBLEMS IN MACROECONOMICS</b> Introduction to Macroeconomics – Measuring National Output and National Income, Unemployment, Inflation and Long-Run Growth	12	CO1, CO3	K1
V	<b>MODULE V: THE CORE OF MACROECONOMIC THEORY</b> Aggregate Expenditure and Equilibrium Output – The Government and Fiscal Policy The Money Supply and the Federal Reserve System – Money Demand and the Equilibrium – Aggregate Demand in the Goods and Money Markets – Aggregate Supply and the Equilibrium Price Level – The Labour Market in the Macro Economy.	12	CO1, CO2, CO3	K1

**Prescribed Books/Textbooks:**

Gregory Mankiw (2013), “Principles of Economics”, 7<sup>th</sup> Edition Cengage Learners, Stanford.

Kooutsoyiannis (2012). Modern Micro Economics, Macmillan Publishers, New Delhi.

Stonier, Alfred W and Douglas C Hague, A Text Book of Economic Theory, Longman, London, 2000.

**References:**

Sowell, T. (2004). Basic economics: a citizen's guide to the economy. Rev. and expanded ed. New York, Basic Books.

Salvatore, Dominick (2003). Schaum's outline of theory and problems of principles of economics Mc-Graw Hill.

Mankiw, N. G. (2016). Principles of microeconomics (8th ed.). CENGAGE Learning Custom Publishing.

**Suggested Reading:**

Hazlitt, H. (1981). Economics in one lesson. Three Rivers Press.

Course Articulation Matrix
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Raworth K.(2017). Doughnut economics : Seven ways to think like a 21st-century economist. Randomhouse
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<b>Web Resources (3-5)</b>
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<a href="https://www.khanacademy.org/">https://www.khanacademy.org/</a> <a href="https://www.economicshelp.org/">https://www.economicshelp.org/</a> <a href="https://www.freeconhelp.com/">https://www.freeconhelp.com/</a>
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Correlation of POs/PSOs to each CO and make a corresponding mapping table.

Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2	3								3					K1
CO 2	2	3								2	3				K1
CO 3	2	3								3					K1
CO 4	2	3								2	3				K4
CO 5	2	3								2	3				K4
Wt. Avg.	2	3								2.4	3				
Overall Mapping of the Course													2.6		

# **SEMESTER -II**

## MICRO ECONOMIC THEORY II

<b>Course Code</b>			
<b>Credits</b>			
<b>Hours / Cycle</b>			
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	II		
<b>Year of Implementation</b>	From the academic year 2023-2024 onwards (this is required as some of the courses may not be revised during particular revision)		
<b>Course Objectives</b>	On completion of the course on Microeconomic theory II students should learn all the strategies of the players in oligopoly market structure and monopolistic market. Students should also get knowledge about consumer behavior when there is asymmetric information. They also get to know the microeconomic foundations for microeconomic systems through general equilibrium analysis.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand how the oligopoly market structure works and to trace the development of oligopoly models from the classical school to the modern school.	PSO 1 PSO 3	<b>K2</b>
<b>CO 2</b>	Apply the marginal productivity theory of factor pricing for all factors	PSO 3	<b>K3</b>
<b>CO 3</b>	Generalize the micro economic principles for macroeconomic general equilibrium models using optimality conditions and to identify the difficulties	PSO3 PSO 5	<b>K1</b>
<b>CO 4</b>	Explain theories of welfare from classical school to Arrow's Impossibility theorem and Value Judgement	PSO 3 PSO 4	<b>K5</b>
<b>CO 5</b>	Analyze markets with asymmetric information	PSO 3 PSO 5	<b>K4</b>

SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	Module – I Market Structure- Oligopoly a. Non-collusive oligopoly – Cournot, Bertrand, Chamberlin, Sweezy, Edgeworth and Stackelberg models. b. Collusive oligopoly – cartels – OPEC Cartel, Gold Cartel- Price Leaderships – Low Cost and Dominant Price Leadership	<b>20</b>	<b>CO1</b>	<b>K2,K3</b>
<b>II</b>	Module -II Factor pricing theories  Demand for and supply of factors – Characteristics of factors – a)Land- Pricing of land –Ricardo's theory of rent, Quasi rent- Economic rent –b)Labour-Factor markets with monopsony power-Factor market with monopoly market- Pricing of Labour – Marginalistic pricing principle for wages – c)Interest-Theories of Interest – Loanable funds theory – Abstinence theory –  Liquidity preference theory – NPV criteria for capital investment- d)Profits-Theories of Profit –Innovation theory – Risk bearing	<b>20</b>	<b>CO2</b>	<b>K3</b>

	theory – theory of uncertainty.			
<b>III</b>	Module -III General equilibrium Walrasian theory – 2x2x2 model – Edgeworth Box diagrams- Pareto optimality conditions for allocation of resources – Euler’s Product exhaustion theorem – Factor Prices and Income distribution.	<b>15</b>	<b>CO3</b>	<b>K2,K4</b>
<b>IV</b>	Module- IV Welfare criteria Classical -Neo Classical welfare criteria – Pigou’s welfare criteria-Pareto’s criteria – Kaldor Hicks compensation criteria – Bergson Samuelson’s social welfare function -Arrow’s Impossibility theorem –Second best solution- Value judgment.	<b>15</b>	<b>CO4</b>	<b>K2,K3</b>
<b>V</b>	Module V Markets with asymmetric information Market signaling-Adverse selection-Moral hazard-The principal- agent problem-Managerial incentives in integrated firm-Asymmetric information in labour	<b>10</b>	<b>CO 5</b>	<b>K2,K5</b>

#### **Prescribed Books/Textbooks**

1. Pindyck. R. S. and D.L. Rubinfeld, Micro Economics fifth edition prentice Hall 2004.
2. Hal. R. Varian, Intermediate Micro Economics, A modern approach W.W. Norton and Company / Affiliated East – West Press (India) 8 th edition 2010

#### **References**

1. Gregory Mankiw.N , Principles of Microeconomics,south Western Cengage learning,5 th edn
2. Case & Fair ,Principles of Economics Myeconlab series 8 th Edn
3. Koutsoyiannis, Modern Microeconomics,Macmillan Education, 2 nd Edn



<p><b>Suggested Reading</b></p> <ol style="list-style-type: none"> <li>1. Dominick Salvatore, Micro economics Theory and Applications,Oxford University Press,5 th Edn</li> <li>2. Cullis &amp; Jones,Public finance and Public choice,Oxford University Press 3 rd Edn</li> </ol>
<p><b>Web Resources</b></p> <ol style="list-style-type: none"> <li>1)<a href="https://www.yourarticlelibrary.com/economics/the-concept-of-social-welfare-propounded-by-a-bergson/37642">https://www.yourarticlelibrary.com/economics/the-concept-of-social-welfare-propounded-by-a-bergson/37642</a></li> <li>2)<a href="https://www.economicsdiscussion.net/firm/general-equilibrium-theory-with-diagram/6002">https://www.economicsdiscussion.net/firm/general-equilibrium-theory-with-diagram/6002</a></li> <li>3)<a href="https://www.economicsdiscussion.net/price/factor-pricing-concept-and-theories/3875">https://www.economicsdiscussion.net/price/factor-pricing-concept-and-theories/3875</a></li> </ol>

Correlation of POs/PSOs to each CO and make a corresponding mapping table.

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	-	3	-	-	-	-	-	3	3	-	2	-	-	K2
CO 2	-	3	-	-	-	2	-	-	-	-	2	-	-	K3
CO 3	-	3	1	-	2	2	1	2	-	-	3	-	1	K1
CO 4	-	3	1	-	2	2	1	2	-	-	2	1	-	K5
CO 5	-	2	-	-	2	2	1	3	-	-	2	-	1	K4
Wt. Avg.	-	2.8	1	-	2	2	3	2.5	3	-	2.2	1	1	
Overall Mapping of the Course												PO- 2.21 PSO- 1.8		

Course Code		CALCULUS FOR ECONOMICS		
Credits				
Hours / Cycle		06/ 15		
Category		Part	Core	Theory
Semester				
Year of Implementation		From the academic year 2023-24 onwards (this is required as some of the courses may not be revised during particular revision)		
Course Objectives		Calculus provides the language of economics and the means by which economists to solve the problems. Calculus is especially significant in illustrating key principles of economics. It focuses heavily on functions and derivative. Functions examine the relationship between two or more variables or entities that take in different values.		
CO #	Course Outcome(s)		PSO Addressed	Bloom's Taxonomy Levels (K1 to K5)
On completing the course successfully, the student will be able to				
CO 1	understand the mathematical operations used in economics		PSO 1	K1
CO 2	identify the nature of diagrams in economics with the help of mathematical economics		PSO 2	K2
CO 3	analyze the consumers' behaviour mathematically		PSO 3	K3
CO 4	build an economic model with the help of mathematical tools		PSO 4	K4
CO 5	estimate the Consumer's and producers' equilibrium mathematically		PSO 5	K5

SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
I	Definition of a set, Different types of a set, Operations on Set(Basic Idea Only), Concepts of range, domain, Mapping: The Plane, Cartesian Product: Concept of euclidean space, Points and lines in Euclidean space. Relations : Functions, one to one and onto function, the inverse function. Types of functions: Quadratic, Polynomial, Power, Exponential, Logarithmic: Graphs- Line, curves, Slope, Tangent, Graphs of linear functions, Non-Linear functions, Applications into Economics: Market Equilibrium, Break-Even Point.	15	CO1	K1& K2

II	Limits and continuity- Differentiability of a function, - Slope of a curve-Increasing and decreasing function- Simple rules of differentiation; Application of differentiation in economics-Calculation of marginal cost, average cost Marginal and average revenue from the respective total and cost and revenue functions- Elasticity: types- calculation of price- income elasticity of demand – Substitutes and complements- Relationships between AR & MR and Price elasticity of demand- Relationship between average and marginal cost. Second Order Derivatives- Convex and Concave functions- maximisation and Minimisation of a function – Economic Applications- output- Sales, revenue maximisation- profit Maximisation under perfect competition, Monopoly, Discriminating monopoly etc, Cost Minimisation- Effect of Taxation.	15	CO1 CO2	K1, K3 & K4
III	Partial Differentiation: Partial derivatives- Second order partial derivatives- total and partial Differential- Total derivatives-implicit functions rules-economic applications-marginal productivity- Partial Elasticities, Cross partial elasticities – Production function- Homogeneous and non-Homogeneous – Euler Theorem-Cobb-Douglas-CES production function.	15	CO2 & CO3	K2, K3 & K4
IV	Unconstrained – Constrained Optimisation: Optimisation with two variables: output, revenue, profit maximisation under perfect competition – profit maximisation under monopoly- oligopoly and duopoly markets. Constrained optimisation: Lagrangian Multiplier- The Hessian and Bordered Hessian method of optimisation- Numerical problems of utility, output, Sales, revenue and profit maximisation under different market conditions.	15	CO2 & CO5	K2, K3, K4, & K5
V	Integral calculus: Rules of Integration- Integration by substitution- Integration by parts- Define integrals- Properties of definite integrals - Area under a curve- Economic Applications- Derivation of total functions (Total Output, Revenue, cost, Utility etc) from the marginal function- Profit Maximisation- Profit Minimisation- Consumer's and Producer's Surplus.	15	CO1 , CO2 & CO4	K2, K4, K5 & K6

**Prescribed Books/Textbooks (1-5 books)**

1. Allen, R.G.D., "Mathematical Analysis for Economists", First Edition, Macmillan and

- |   |
|---|
| <p>Co. Ltd, 2008.</p> <ol style="list-style-type: none"> <li>2. Chiang, A. C., “Fundamental Methods of Mathematical Economics”, Fourth Edition, McGraw-Hill, 1984.</li> <li>3. Hadley, G., “Linear Algebra Addison”, First Edition, Wesley Publishing Company, 1977.</li> </ol> |
|---|

## References (3 – 5)

1. Carl P Simon & Lawrence E. Blume., “Mathematics for Economists”, First Edition, W. W. Norton & Company, 2010.
2. Edward T. Dowling., “Mathematical Methods for Business and Economics”, Schaum’s Outline Series, Third Edition, McGraw Hill, 2002.
3. Ian Jacques, “Mathematics for Economics and Business”, Ninth Edition, Pearson, New Delhi, 2018.
4. Mehta and Madnani., “Mathematics for Economists”, First Edition, Sultan Chand and Sons, New Delhi, 2019.
5. Renshaw Geoff., “Maths for Economics”, Third Edition, Oxford University Press, Oxford, 2005

**Suggested Reading (2 -5)**

- Mabbett. Alan J., “Workout for Mathematics for Economist”, First Edition, McMillan, 1986.
- Sydsaeter, K. and Hammond, P., “Mathematics for Economic Analysis”, First Edition, Pearson Educational Asia, New Delhi 2002.

### Web Resources (3-5)

1. <https://hummedia.manchester.ac.uk/school/soas/economics/pg/psmaths/pre-sessionmathbook.pdf>
2. <https://mitpress.mit.edu/9780262046626/mathematics-for-economics/>
3. <https://mitpress.mit.edu/9780262294805/mathematics-for-economics/>
- 4. <https://www.coursera.org/learn/mathematics-for-economists>**

Correlation of POs/PSOs to each CO and make a corresponding mapping table.

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	3	3	-	-	2	-	2	1	2	3	-	-	-	-	K1
CO 2	3	3		1	1	1	-	-	-	-	-	-	-	3	K2
CO 3	3	3	1	3	3	2	1	2	1	-	-	-	-	3	K3
CO 4	3	3	2	2	-	2	2	2	2	-	-	3	-	-	K4
CO 5	-	-	3	-	-	3	3	3	3	-	-	-	3	-	K5 & K6
Wt. Avg.	3	3	2	2	2	2	2	2	2	3	-	3	3	3	
Overall Mapping of the Course													2.66		

**Course title: Introduction to Game Theory**

<b>Course Code</b>			
<b>Credits</b>	5		
<b>Hours / Cycle</b>	6		
<b>Category</b>	Part III b	Allied	Theory
<b>Semester</b>	II		
<b>Year of Implementation</b>	From the academic year .....2023-24..... onwards (this is required as some of the courses may not be revised during particular revision)		
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>4. To create knowledge about the nature of strategic interdependence in agent interactions in economic theory.</li> <li>5. To equip students with theoretical tools to make effective decisions in strategic environment.</li> <li>6. To apply the knowledge gained during the course in solving real world economic problems</li> </ol>		

CO #	Course Outcome(s)	PSO Addressed	Bloom's Taxonomy Levels (K1 to K5)
On completing the course successfully, the student will be able to			
CO 1	Appreciate the nature strategic of interactions among economic agents and challenges it causes for economic modelling.	PSO 1 & PSO 3	K1
CO 2	Gain knowledge about the formal theoretical tools to model strategic interdependence in economics.	PSO 3 & PSO 2	K2
CO 3	Analyse different types of game theoretic scenarios arising out of agent interactions.	PSO 3 & PSO 4	K3
CO 4	Apply game theoretical models to solve market outcomes	PSO 3 ,PSO 4 & PSO 5	K4
CO 5	Build a rigorous platform to learn advanced microeconomics and other fields of strategic interactions in economic theory.	PSO 3 & PSO 5	K5

SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL

<b>I</b>	Preliminary concepts-Decision making under strategic interdependence-Strategies and Payoff functions- types of games- Zero sum games and general sum games- two person and n person games- non-cooperative and cooperative game theory – rationality in game theory – Common knowledge rationality- Game theoretic revolution in economics.	<b>10</b>	<b>CO 1 &amp; CO 2</b>	<b>K 1 &amp; K 2</b>
<b>II</b>	Classical normal form games- Assumptions – Nash Equilibrium – Principle of dominance- Weak dominance and strong dominance-Best response functions- Finding Nash Equilibria using iterated elimination of dominated strategies and best response functions- Prisoner’s Dilemma- Battle of Sexes- Chicken Game- Stag Hunt –Cournot’s model of oligopoly-Bertrand’s model of Oligopoly.	<b>15</b>	<b>CO 2 &amp; CO3</b>	<b>K 2 &amp; K 3</b>
<b>III</b>	Randomization of strategies- von Neumann and Morgenstern (vNM) preferences –expected value of a payoff function – strategic game with vNM preferences – mixed strategy profile – Mixed strategy Nash Equilibrium – Finding mixed strategy Nash Equilibria – Zero sum games –minimax theorem – value of a zero sum game – Examples of mixed strategy Nash Equilibrium.	<b>20</b>	<b>CO 2, CO 3 &amp; CO 4</b>	<b>K 2, K3 &amp; K4</b>
<b>IV</b>	Games in extensive form with complete information (GEFCI) – structure of GEFCI – Backward induction – Common Knowledge Rationality – Credible threats and promises-Criticisms of backward induction – Ultimatum game and Centipede game - Sub game perfection – Rubenstein’s bargaining model – Repeated games – Iterated Prisoner’s Dilemma.	<b>15</b>	<b>CO 2, CO 3, CO 4</b>	<b>K2, K3 &amp; K4</b>
<b>V</b>	Random events and incomplete information – Bayesian Games – Bayesian normal form – Bayesian Nash Equilibrium and Rationalizability – Examples- Market for Lemons – Auctions – second price auctions.	<b>15</b>	<b>CO 4 &amp; CO 5</b>	<b>K 3 &amp; K 5</b>

#### **Prescribed Books/Textbooks**

4. Osborne, Martin J (2012) An Introduction to Game Theory, Oxford University Press, India
5. Watson, Joel (2013) Strategy: An Introduction to Game Theory, Third edition, W.W.Norton& Company
6. Dixit, A.K., Susan Skeath and David H Reiley (2015) Games of Strategy, Fourth Edition, W.W.Norton & Company.

#### **References**

3. Hargreaves,H.Shaun and Varoufakis,Yanis (2004) Game Theory: A Critical Text, Routledge
4. Gintis, H. and Schecter, S. (2016). Game Theory in Action: An Introduction to Classical and Evolutionary Models, Princeton University Press

#### **Suggested Reading**

**Course Articulation Matrix**

Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO 5	
CO 1		3	2						3		3			K1
CO 2		3	2							2	3			K2
CO 3		3	2		2	2					3	3		K3
CO 4		3	2		2	2					3	3	3	K4
CO 5		3	2	2	2	2					3		3	K5
Wt. Avg.		3	2	2	2	2			3	2	3	3	3	
Overall Mapping of the Course													2.5	

4. Dixit, Avinash and Nalebuff, Barry (2008) The Art of Strategy: A Game Theorist's Guide to Success in Business and Life, W.W.Norton & Company
5. Schelling, Thomas C (1980) The Strategy of Conflict, Harvard University Press.
6. Axelrod, Robert (1984) The Evolution of Cooperation, Basic Books

**Web Resources**

4. [https://cgi.csc.liv.ac.uk/~rahul/bimatrix\\_solver/](https://cgi.csc.liv.ac.uk/~rahul/bimatrix_solver/)
5. <https://mindyourdecisions.com/GameSolver.html>
6. <https://ocw.mit.edu/courses/14-12-economic-applications-of-game-theory-fall-2012/>

## PRINCIPLES OF ECONOMICS (GC)

Course Code		19IEC1G01 (PRINCIPLES OF ECONOMICS)		
Credits		2		
Hours / Cycle		4		
Category		Part	Elective	Theory
Semester		I and II		
Year of Implementation		From the academic year 2023-24 onwards		
Course Objectives		<ul style="list-style-type: none"><li>• To help students (whose major is not Economics) to understand the how the world around them works in an economic context.</li><li>• To help students understand the building blocks of basic economic theory.</li><li>• To enable the students to understand consumer behaviour, individual demand, utility, goals of the firm and provide a general understanding of how markets function.</li><li>• To enable students of this course understand how the economy in the aggregate works, based on the broad conditions of constraints it faces.</li></ul>		
CO #	Course Outcome(s)		PSO Addressed	Bloom's Taxonomy Levels (K1 to K5)
On completing the course successfully, the student will be able to				
CO 1	Gain a basic understanding of the subject matter of economics		PSO-1	K1
CO 2	Appreciate how the various markets function and how the economy arrives at a theoretical general equilibrium.		PSO-1, PSO-3	K1
CO 3	Gain a macro understanding or perspective of the economy and understand and interpret key terminologies related to macroeconomics.		PSO-1	K1
CO 4	Examine how individuals and groups make basic economic decisions based on the constraints they face.		PSO -1 PSO-3	K4
CO 5	Understand and examine how the real-world functions, by dealing with market imperfections and various market structures.		PSO-1, PSO-3	K4



SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
I	<b>MODULE I: INTRODUCTION TO ECONOMICS</b> The Scope and Method of Economics – The Economic Problem: Scarcity and Choice, Demand and Supply and Market Equilibrium – Demand and Supply Applications – Elasticity.	12	CO1, CO2, CO4	K1, K4
II	<b>MODULE II: THE MARKET SYSTEM: CHOICES MADE BY HOUSEHOLDS AND FIRMS</b> Household Behaviour and Consumer Choice – The Production Process: The Behaviour of Profit-Maximising firms – Short-run costs and Output Decisions, Long-run costs and Output Decisions – Input Demand: The Labour and Land Markets Input Demand: The Capital Market and the Investment Decision – General Equilibrium and the Efficiency of Perfect Competition.	12	CO2, CO4, CO5	K1, K4
III	<b>MODULE III: MARKET IMPERFECTIONS AND ROLE OF GOVERNMENT</b> Monopoly and Antitrust Policy – Oligopoly – Monopolistic Competition Externalities – Public Goods and Social Choice – Uncertainty and Asymmetric Information – Income Distribution and Poverty – Public Finance – The Economics of Taxation.	12	CO2, CO4, CO5	K1, K4
IV	<b>MODULE IV: CONCEPT AND PROBLEMS IN MACROECONOMICS</b> Introduction to Macroeconomics – Measuring National Output and National Income, Unemployment, Inflation and Long-Run Growth	12	CO1, CO3	K1
V	<b>MODULE V: THE CORE OF MACROECONOMIC THEORY</b> Aggregate Expenditure and Equilibrium Output – The Government and Fiscal Policy The Money Supply and the Federal Reserve System – Money Demand and the Equilibrium – Aggregate Demand in the Goods and Money Markets – Aggregate Supply and the Equilibrium Price Level – The Labour Market in the Macro Economy.	12	CO1, CO2, CO3	K1

**Prescribed Books/Textbooks:**

Gregory Mankiw (2013), “Principles of Economics”, 7<sup>th</sup> Edition Cengage Learners, Stanford.

Kooutsoyiannis (2012). Modern Micro Economics, Macmillan Publishers, New Delhi.

Stonier, Alfred W and Douglas C Hague, A Text Book of Economic Theory, Longman, London, 2000.

**References:**

Sowell, T. (2004). Basic economics: a citizen's guide to the economy. Rev. and expanded ed. New York, Basic Books.

Salvatore, Dominick (2003). Schaum's outline of theory and problems of principles of economics  
Mc-Graw Hill.

Mankiw, N. G. (2016). Principles of microeconomics (8th ed.). CENGAGE Learning Custom Publishing.

**Suggested Reading:**

Hazlitt, H. (1981). Economics in one lesson. Three Rivers Press.

Raworth K.(2017). Doughnut economics : Seven ways to think like a 21st-century economist.  
Randomhouse

**Web Resources (3-5)**

<https://www.khanacademy.org/>

<https://www.economicshelp.org/>

<https://www.freeconhelp.com/>

Correlation of POs/PSOs to each CO and make a corresponding mapping table.

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2	3								3					K1
CO 2	2	3								2	3				K1
CO 3	2	3								3					K1
CO 4	2	3								2	3				K4
CO 5	2	3								2	3				K4
Wt. Avg.	2	3								2.4	3				
Overall Mapping of the Course													2.6		

# **SEMESTER –III**

**Course title: Macroeconomic Theory I**

<b>Course Code</b>			
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part III a</b>	<b>Major</b>	<b>Theory</b>
<b>Semester</b>	<b>III</b>		
<b>Year of Implementation</b>	<b>From the academic year .....2024-25 ..... onwards (this is required as some of the courses may not be revised during particular revision)</b>		
<b>Course Objectives</b>	<b>4. To create knowledge about the functioning of the economy at aggregate level.</b> <b>5. To equip students with theoretical tools to analyse the working of macroeconomy both at equilibrium and off equilibrium.</b> <b>6. To apply the knowledge gained during the course in explaining real world macroeconomic issues.</b>		

<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	<b>Appreciate the nature interactions among economic units at macro level and challenges it causes for economic modelling.</b>	<b>PSO 1 &amp; PSO 3</b>	<b>K1</b>
<b>CO 2</b>	<b>Gain knowledge about the formal theoretical tools to model macroeconomy.</b>	<b>PSO 3 &amp; PSO 2</b>	<b>K2</b>
<b>CO 3</b>	<b>Analyse different types of theoretical frameworks existing in macroeconomic literature.</b>	<b>PSO 1 &amp; PSO 2</b>	<b>K3</b>
<b>CO 4</b>	<b>Apply macroeconomic models to explain aggregate outcomes</b>	<b>PSO 2, PSO 3 ,PSO 4 &amp; PSO 5</b>	<b>K4</b>
<b>CO 5</b>	<b>Build a rigorous platform to learn advanced macroeconomics and its extensions in economic theory.</b>	<b>PSO 3 &amp; PSO 5</b>	<b>K5</b>

**SYLLABUS**

<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	Basics of national income accounting – Circular flow of income and spending – Macroeconomic models – Endogenous and Exogenous variables in a model – stock and flow variables – Ex ante and ex post variables – Statics, comparative statics and dynamic approaches to macroeconomic modelling – Behavioural equations, technical equations, equilibrium conditions and identities in a macroeconomic model- causal structure of macroeconomic models.	<b>10</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>

<b>II</b>	Classical approach to macro economy – Quantity theory of Money – Fisher’s equation of exchange and Cambridge approach to quantity theory – Say’s Law of markets – Wage-price flexibility – role of money in classical model – Classical dichotomy and neutrality of money- Keynes’ challenge to classical approach to macro economy – Keynes’ criticism of classical quantity theory – Keynes’ theory of demand for money – Motives for holding idle balances – Liquidity trap – Rigidities in Keynes’ model – Keynesian psychological law of consumption and consumption function – Concept of multiplier – multiplier in closed and open economies – Concept of effective demand – Keynesian aggregate supply curve under the assumption of excess capacity in the economy – Underemployment equilibrium in Keynes’ model.	<b>15</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>III</b>	Integration of real and monetary sectors – IS-LM as neoclassical synthesis – Derivation of IS and LM schedules – Theoretical reason for the slope of IS-LM schedules – Shifts in IS-LM schedules – equilibrium in the closed economy – Equilibrium in the open economy – Equilibrium in the foreign exchange market – exchange rates and balance of payments – IS-LM-FE model (Mundell-Fleming model) – Fiscal and monetary policies under Mundell- Fleming model – Comparative statics versus adjustment dynamics – exchange rate expectations – Exchange rate overshooting .	<b>20</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>IV</b>	Subjective and objective factors influencing consumption – Keynes’ absolute income hypothesis – results of short and cross section studies of Keynes’ consumption function – Kuznets’ study on the long run constancy of average propensity to consume – Attempts to reconcile short run and long run results of consumption function – Wealth as an explanatory variable in consumption function - Modigliani’s Life Cycle Hypothesis (LCH) – Friedman’s Permanent Income Hypothesis (PIH) - Policy implications of LCH and PIH - Duesenberry’s Relative Income Hypothesis .	<b>15</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>V</b>	Classical theory of investment and the role of rate of interest – Role of expectations in Keynesian model of investment – Role of Animal spirits – Marginal Efficiency of Capital (MEC) – Net Present Value	<b>15</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>

	(NPV) – Keynes’ idea of investment as a beauty contest game – Neo-classical model of investment – Accelerator model of investment.			
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#### Prescribed Books/Textbooks

4. Snowden, Brian and Howard R Vane (2005) Modern Macroeconomics: Its Origins, Development and Current State, Edward Elgar
5. Gartner, Manfred (2003) Macroeconomics, Prentice Hall
6. Branson, William H and James M Litvack (1981) Macroeconomics, Harper and Row

#### References

1. Levacic, Rosalind and Alexander Rebmman (1982 ) Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies, The Macmillan Press
2. Hansen, Alvin H (1953) A Guide to Keynes, McGraw Hill

#### Suggested Reading

4. Mankiw, Gregory N (2010) Macroeconomics, Worth Publishers
5. Akerlof, George A and Shiller, Robert (2009) Animal Spirits How Psychology Drives the Economy and Why it Matters for Global Capitalism, Princeton University Press
6. Carter, Zachary D (2020) The Price of Peace: Money, Democracy, and the Life of John Maynard Keynes, Penguin Random House
7. Skidelsky, Robert (2010) Keynes The Return of the Master, Public Affairs

#### Web Resources

1. <https://www.core-econ.org/new-edition-of-the-economy/>
2. <https://www.macrosan.org/>
3. <https://ocw.mit.edu/courses/14-02-principles-of-macroeconomics-spring-2014/>

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO 5	
CO 1	1	3	2						3		3			K1
CO 2		3	2						3	2	3			K2
CO 3	1	3	2		3	2			3	2	3	2		K3
CO 4	1	3	2		3	2			3	2	3	2	3	K4
CO 5		3	2	2	3	2			3		3		3	K5
Wt. Avg.	1	3	2	2	3	2			3	2	3	2	3	
Overall Mapping of the Course												P O 2.16/PSO 2.6		

<b>Course Code</b>	<b>DEVELOPMENT OF ECONOMIC IDEAS</b>		
<b>Credits</b>	<b>FIVE (5)</b>		
<b>Hours / Cycle</b>	<b>SIX (6)</b>		
<b>Category</b>	<b>Part - III a</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>III</b>		
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards</b>		
<b>Course Objectives</b>	Economic ideas originated from the philosophical thoughts of the people belonging to the Medieval times. In later times, economic ideas evolved in response to prevailing social and economic situations. This paper will aim at building such understanding among the undergraduate students of Economics.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand the main economic ideas of early, classical and neo-classical school of thought	<b>PSO 1</b>	<b>K1</b>
<b>CO 2</b>	Understand the theories developed by various economists who belonged to the different school of Institutions	<b>PSO 2</b>	<b>K2</b>
<b>CO 3</b>	Learn the concept of Keynesian and Marxian School of Thought.	<b>PSO 4</b>	<b>K3</b>
<b>CO 4</b>	Study the Indian economic ideas and thoughts by Great Indians	<b>PSO 4</b>	<b>K4</b>
<b>CO 5</b>	Learn the contribution made by Nobel Laureates in Economics.	<b>PSO 3</b>	<b>K5</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	Economic ideas of the Hebrews – Economic ideas of Greco-Romans – Economic thought of Plato and Aristotle – Medieval economic thought of St. Thomas Aquinas - Economic ideas of Adam Smith: Division of labour, Theory of value, Capital accumulation, Distribution, Views on trade - David Ricardo: Theory of distribution and rent, Ideas of international trade – Thomas R. Malthus: Theory of Population, Theory of Gluts – Economic ideas of J.B. Say and J.S. Mill. Economic ideas of Walras, Jevons and Menger – Marginalism, characteristics and	<b>12</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>



	economic ideas - Economic ideas of Alfred Marshall: Neo-Classicism - economic methods, elasticity, consumer surplus, costs and quasi-rent.			
<b>II</b>	School of Economics of Institutions: Main characteristics, Economic ideas of Veblen, Common and Mitchell – Economic thought of Gunnar Myrdal and Galbraith	<b>12</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>III</b>	Economic ideas of Karl Marx: Theory of value, Surplus value, Dynamics of social change. Economic ideas of Keynes: Aggregate economy, Liquidity Preference Theory, Liquidity Trap, Marginal Efficiency of Capital and Marginal Efficiency of Investment, Underemployment equilibrium, Wage rigidities, Role of fiscal policy. Multiplier principle, Cyclical behaviour of the economy	<b>12</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>IV</b>	Early economic ideas: Kautilya's Arthashastra, Valluvar's Thirukural – Modern economic ideas: Naoroji, Ranade, Gokale, R.C.Dutt, M.N.Roy and Ambedkar – Gandhian economic thought: Village, Swadeshi, Cottage industries, Trusteeship - and J.C. Kumarappa's idea - Nehru-Mahalanobis approach.	<b>12</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>V</b>	Ragnar Frisch – Jan Tinbergen - Paul Samuelson – Simon Kuznets – Kenneth Arrow – Wassily Leontief - Milton Friedman – Arthur Lewis – Franco Modigliani – Robert Solow - Amartya Sen – Paul Krugman – Elinor Ostrom – Abhijit Banerjee – Esther Duflo – Michael Kremer.	<b>12</b>	<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>

#### **Prescribed Books/Textbooks**

- William J. Barber., A History of Economic Thought, Wesleyan University Press, 2015.
- Ernesto Screpanti and Stefano Zamagni., An Outline of the History of Economic Thought, Oxford University Press, 2012.

#### **References**

- Alexander Grey & Thomson A.E., The Development of Economic Doctrine, Longman Group, London, 1980.
- Ganguli B.N., Indian Economic Thought, A 19<sup>th</sup> Century Perspective, McGraw Hill, New Delhi, 1977.
- Hajela T.N., History of Economic Thought, Ane's Student Edition Ane Books, New Delhi, 2010.

#### **Suggested Reading**

- Haney H.L., History of Economic Thought 4<sup>th</sup> Edition Oxford Press, 1990.

- Schumpeter J.A., A History of Economic Analysis, Oxford Press, New York, 196.

**b Resources**

[://planningcommission.gov.in](http://planningcommission.gov.in)  
[://civilaviation.nic.in](http://civilaviation.nic.in) <http://mohfw.nic.in> <http://www.indianrailways.gov.in>  
[://rural.nic.in](http://rural.nic.in) <http://morth.nic.in> <http://shipping.gov.in>  
[://ssi.gov.in](http://ssi.gov.in) <http://ssi.gov.in> <http://commin.nic.in>

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	1	2	3	-	1	2	2	2	2	2	3	3	3	K1
CO 2	1	2	2	-	2	2	1	2	2	3	3	2	2	K2
CO 3	1	2	3	-	3	2	2	2	2	3	2	2	3	K3
CO 4	1	2	2	-	3	2	2	2	2	2	2	2	2	K4
CO 5	1	2	2	-	2	3	2	3	2	2	2	3	2	K5
Wt. Avg.	1	2	2.4	-	2.2	2.2	1.8	2.2	2	2.4	2.4	2.4	2.4	
Overall Mapping of the Course												PO = 1.72 PSO = 2.32		

<b>Course Code</b>	<b>International Business</b>		
<b>Credits</b>			
<b>Hours / Cycle</b>			
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>			
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards (this is required as some of the courses may not be revised during particular revision)</b>		
<b>Course Objectives</b>	This course is designed to help student understand the most widely used international business terms and concepts. This course will provide students with the knowledge, skills and abilities to understand the global, economic, political, cultural and social environment within which firms operate.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand the basic concepts and theories in International Trade	PSO 1	<b>K1, K2</b>
<b>CO 2</b>	Understand the global capital market and the international business operations	PSO 1	<b>K1, K2</b>
<b>CO 3</b>	Understand the strategies that can be used to enter the international market.	PSO 1	<b>K2</b>
<b>CO 4</b>	Understand the different investment and export promotions available.	PSO 1	<b>K5</b>
<b>CO 5</b>	Understand the international organization's role, functions and its development.	PSO 4	<b>K4</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVELS</b>
<b>I</b>	UNIT I: INTRODUCTION  Globalization-National Differences in Political Economy-Political Economy and Economic Development - Differences in Culture-Ethics in International Business- Patterns of Trade – Trade theory And Government Policy - Product Life Cycle Theory - New Trade Theory - National Competitive Advantage - Porter's Diamond.		<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>

<b>II</b>	<b>UNIT II: THE GLOBAL CAPITAL MARKET</b> Growth of Global Capital Market -The Euro market: Genesis and Growth - Attractions and Drawback of Euro market - Global Bond Market and Global Equity Market - Global Production, Outsourcing and Logistics - Global Marketing and R&D-Market Segmentation - Distribution Strategy- Communication Strategy - New Product Development		<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>III</b>	<b>UNIT III: STRATEGY AND STRUCTURE OF INTERNATIONAL BUSINESS</b> Entry Strategies and Strategic Alliance – Exporting - Turnkey Projects – Licensing – Franchising - Joint Ventures - Wholly Owned Subsidiaries - Greenfield Ventures - Advantages and Disadvantages of Strategic Alliance - Types of Countertrade- Pros and Cons of Countertrade - Pricing Strategies - Dumping		<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>IV</b>	<b>UNIT IV: INTERNATIONAL INVESTMENTS AND EXPORT PROMOTION</b> Foreign Investments Types - Factor Affecting International Investment - Foreign Direct Trends in FDI - Direction o FDI - Source of FDI-Theories of Foreign Direct Investment - India's Position- Export oriented Units and Export Processing Zones- Export Houses and Trading Houses.		<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>
<b>V</b>	<b>UNIT V: INTERNATIONAL ORGANISATIONS</b> Development of World Trading System - General Agreement on Tariffs and Trade (GATT) - Uruguay Round -World Trade Organisation - Unresolved Issues in Doha Round - International Monetary Fund - Role of Special Drawing Rights (SDR) - Bretton Woods System - Role of International Monetary Fund(IMF) - Role of World Bank		<b>CO 1- CO 5</b>	<b>K 1 – K 5</b>

**Prescribed Books/Textbooks (1-5 books)**

- 1)Francis Cherunilam – International Business (5<sup>th</sup> Ed.)-Wheeler publishing Company (2016)
- 2)Charles W.L. Hill. – International business-Competing in the global marketplace (9<sup>th</sup> Ed.)- McGraw-Hill, Irwin (2013).

**References (3 – 5)**

1. S. Tamer Cavusgil, Gary Knight, John Riesenberger.- International Business-The New Realities (4<sup>th</sup> Ed.) Pearson Education Limited (2017).
2. Philip Cateora – International Marketing- -Toppan Company Ltd
3. Subba Rao P -International Business Himalayan Publishing House

**Suggested Reading (2 -5)**

International Business Environments and Operations by Daniels and Sullivan – 17<sup>th</sup> edition

K. Aswathappa, International Business, 2009, Tata McGraw Hill, New Delhi.

### Web Resources (3-5)

- 1) <https://www.economicdiscussion.net/essays/international-trade-essays/essay-on-theories-of-international-trade/17910>
- 2) <https://www.yourarticlelibrary.com/economics/dumping-meaning-types-price-determination-and-effects-of-dumping/28863>
- 3) <https://www.indeed.com/career-advice/career-development/market-entry-strategies>
- 4) <https://www.coursesidekick.com/economics/36139>
- 5) <https://pressbooks.pub/internationalbusiness/chapter/chapter-13-global-production-outsourcing-and-logistics/>

Correlation of POs/PSOs to each CO and make a corresponding mapping table.

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1															
CO 2															
CO 3															
CO 4															
CO 5															
Wt. Avg.															
Overall Mapping of the Course															

# **SEMESTER –IV**

**Course title: Macroeconomic Theory II**

<b>Course Code</b>			
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part III a</b>	<b>Major</b>	<b>Theory</b>
<b>Semester</b>	<b>IV</b>		
<b>Year of Implementation</b>	<b>From the academic year .....2024-25.....onwards (this is required as some of the courses may not be revised during particular revision)</b>		
<b>Course Objectives</b>	<b>7. To create knowledge about nature and causes of macroeconomic problems</b> <b>8. To equip students with theoretical tools to analyse macroeconomic fluctuations and understand the corrective measures to restore the equilibrium</b> <b>9. To apply the knowledge gained during the course in understanding the complexities of real-world economic problems and its potential solutions.</b>		

<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	<b>Appreciate the nature economic problems at macro level and challenges it causes for economic modelling.</b>	<b>PSO 1 &amp; PSO 3</b>	<b>K1</b>
<b>CO 2</b>	<b>Gain knowledge about the formal theoretical tools to model macroeconomic issues like inflation, growth and economic fluctuations.</b>	<b>PSO 3 &amp; PSO 2</b>	<b>K2</b>
<b>CO 3</b>	<b>Evaluate the effectiveness of policy frameworks in modern macroeconomic literature.</b>	<b>PSO 2 ,PSO 3 &amp; PSO 4</b>	<b>K3</b>
<b>CO 4</b>	<b>Apply latest macroeconomic theoretical models to understand and analyse complex macroeconomic issues</b>	<b>PSO 2, PSO 3 ,PSO 4 &amp; PSO 5</b>	<b>K4</b>
<b>CO 5</b>	<b>Build a rigorous platform to learn advanced macroeconomics and its extensions to related fields</b>	<b>PSO 3 &amp; PSO 5</b>	<b>K5</b>

**SYLLABUS**

UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	Wage setting and Price setting equations – Natural rate of unemployment – Derivation of Aggregate Supply curve with price expectations – Equilibrium between Aggregate Supply and Aggregate Demand in short run and Medium run – Dynamics of aggregate demand shocks and aggregate supply shocks in short run and medium run – Impact on price and output – Demand pull inflation and cost push inflation – Trade-off between inflation and unemployment (Phillips' curve) – Natural Rate Hypothesis and Expectation Augmented Phillips' Curve.	<b>15</b>	<b>CO 1 - CO 5</b>	<b>K 1 -K 5</b>
<b>II</b>	<p>a) Economic growth – stylized facts – Harrod – Domar Model –Neoclassical Challenges to central results of Harrod – Domar model – Solow model with and without technical progress - Growth Accounting in Solow model- – nature of technical progress – Solow model with human capital – Endogenous Growth models – Romer Model – Alternative theories of endogenous growth –AK Model</p> <p>b) Cambridge challenges to neoclassical paradigm – Joan Robinson's model of economic growth – Kaldor's differential saving approach.</p>	<b>15</b>	<b>CO 1 - CO 5</b>	<b>K 1 -K 5</b>
<b>III</b>	Business cycles – phases of business cycles – Schumpeter's innovations approach – Hayek's Theory – Keynes's approach to trade cycles – Hicks-Samuelson Accelerator- Multiplier Interactions model – Kaldor's model with Non-linear saving and investment functions – Real Business Cycles.	<b>15</b>	<b>CO 1 - CO 5</b>	<b>K 1 -K 5</b>
<b>IV</b>	Core features of New Classical macroeconomic models – Rational Expectation Hypothesis - Continuous Market Clearing – The Aggregate Supply Hypothesis of Robert Lucas –Focus on the Micro-foundations of Macroeconomics – Policy implications of New Classical Approach – The policy ineffectiveness theorem – Lucas Critique of	<b>15</b>	<b>CO 1 - CO 5</b>	<b>K 1 -K 5</b>



	Structural Macroeconomic models – Rule Vs Discretion debate under new classical model –Time consistency problem of monetary policy –Central bank independence and reduction of inflation bias.			
<b>V</b>	Resurgence of Keynesian economics – Core features of New Keynesian Macroeconomics –Imperfections in real market – Nominal rigidities – Incorporation of Rational Expectation Hypothesis – Fisher and Taylor model with nominal rigidities – Real rigidities –New Keynesian Business Cycle Theory – Policy implications of New Keynesian macroeconomics – Inflation targeting regime – New Keynesian approach to monetary policy – Keynesian Economics without the LM curve.	<b>15</b>	<b>CO 1 - CO 5</b>	<b>K 1 -K 5</b>
<b>Prescribed Books/Textbooks</b> <ol style="list-style-type: none"> <li>7. Snowden, Brian and Howard R Vane (2005) <b>Modern Macroeconomics: Its Origins, Development and Current State</b>, Edward Elgar</li> <li>8. Blanchard, Olivier and David R Johnson (2013) <b>Macroeconomics</b>, Pearson</li> <li>9. Jones, Charles I (2013) <b>Introduction to Economic Growth</b>, Viva-Norton Books</li> </ol>				
<b>References</b> <ol style="list-style-type: none"> <li>3. Jones, G Hywel (1976) <b>An Introduction to Modern Theories of Economic Growth</b>, McGraw-Hill</li> <li>4. Gartner, Manfred (2003) <b>Macroeconomics</b>, Prentice Hall</li> <li>5. Feiwel, George (Ed) (1985) <b>Issues in Contemporary Macroeconomics and Distribution</b>, Palgrave Macmillan</li> <li>6. Mankiw, Gregory N and Romer, David (Eds) (1991) <b>New Keynesian Economics</b>, Vol.1, MIT Press</li> </ol>				
<b>Suggested Reading</b> <ol style="list-style-type: none"> <li>8. Solow, Robert M (1956) “A Contribution to the Theory of Economic Growth”, <b>The Quarterly Journal of Economics</b>, Vol. 70, N0.1, pp.65-94</li> <li>9. Solow, Robert M (1957) “Technical Change and the Aggregate Production Function”, <b>The Review of Economics</b>, Vol.39, No.3, pp.312-330</li> <li>10. Friedman, Milton (1968) “The Role of Monetary Policy”, <b>The American Economic Review</b>, March, vol 1.</li> <li>11. Phillips, A W (1958) “The Relation Between Unemployment and Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957, <b>Economica</b>, vo.25, pp.283-299</li> </ol>				
<b>Web Resources</b> <ol style="list-style-type: none"> <li>4. <a href="https://www.core-econ.org/new-edition-of-the-economy/">https://www.core-econ.org/new-edition-of-the-economy/</a></li> <li>5. <a href="https://www.macrosan.org/">https://www.macrosan.org/</a></li> <li>6. <a href="https://ocw.mit.edu/courses/14-452-macroeconomic-theory-ii-spring-2007/">https://ocw.mit.edu/courses/14-452-macroeconomic-theory-ii-spring-2007/</a></li> </ol>				

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO 5	
CO 1	1	3	2						3		2			K1
CO 2		3	2							3	2			K2
CO 3		3	2	3	2	2				3	2	2		K3
CO 4	1	3	2	3	2	2			3		2	2	3	K4
CO 5	1	3	2	3	2	2			3	3	2		3	K5
Wt. Avg.	1	3	2	3	2	2			3	3	2	2	3	
Overall Mapping of the Course												PO 2.16/ PSO 2.6		

<b>Course Code</b>	<b>STATISTICS FOR ECONOMICS</b>		
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>IV</b>		
<b>Year of Implementation</b>	<b>2024-25</b>		
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>To provide essential knowledge of the theory and key properties of probability and random variables, and the application of these concepts in practical situations.</li> <li>To facilitate an understanding of the main branches of basic statistical inference, and to develop the ability to use statistical techniques to analyze data and assess the accuracy of the resulting estimates and conclusions</li> <li>Manipulate the probability models that are most widely used in economics, and apply them correctly and carry out the appropriate statistical analysis</li> </ul>		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand the basic probability rules and understand theoretical distributions.	PSO 1	<b>K1</b>
<b>CO 2</b>	Make use of various sampling methods and testing of hypotheses	PSO 2	<b>K2</b>
<b>CO 3</b>	Analyse the real time data using t test and chi square for analysis	PSO 6	<b>K3</b>
<b>CO 4</b>	Examine the importance of analysis of variance in Economics	PSO 3	<b>K4</b>
<b>CO 5</b>	Improvise the various decision-making processes with the tools available.	PSO 4	<b>K5</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	<b>Module I: Probability Theory</b>  Basic concepts - Random experiment — Outcomes — Events - Sample space - Mutually exclusive events collectively exhaustive and complement - Classical probability - Relative	<b>18</b>	<b>CO1 - CO5</b>	<b>K1- K5</b>

	Frequency - Subjective probability - Addition and multiplication rules - Conditional probability - Bayes Theorem: Random variables - Discrete and continuous variables - Probability distributions for discrete variables - Properties of discrete random variables - Theorems on expectation variables: Definition and Statement of the Theorem (no derivation)- Expected value of discrete random variable - Variance of a discrete random variable - Mean and variance of linear functions of a random variable.			
<b>II</b>	<b>Module II: Theoretical Distribution</b>  Binomial Distribution :mean and variance of binomial probability distribution - Poisson Distribution: Mean and Variance - Its properties uses and applications - Poisson approximation to Binomial distribution — Jointly Distributed Discrete Random variables - Conditional probability function - Covariance and Correlation - Continuous Random variables and Probability distributions - Normal distribution - Properties and uses – Problems using area under Standard Normal Curve - Normal Distribution Approximation for Binomial Distribution.	<b>18</b>	<b>CO1 - CO5</b>	<b>K1- K5</b>
<b>III</b>	<b>Module III: Sampling and Estimation</b>  Sampling — Types - Random and non-random sampling - Sampling distribution and Standard Error - Sampling distribution of sample mean - The Central Limit Theorem - Sampling distribution of sample proportion - Sampling distribution of sample variances.  Criteria of a Good Estimator - Types of Estimates: Point and Interval Estimates - Difference between Point estimator and Point Estimate - Point estimate of the Population Variance and Standard Deviation - Point Estimate of Population Proportion.  Interval Estimates and Confidence Intervals; Relationship Between Confidence level and confidence interval - Interval Estimates of mean from large samples - Population standard variance known - Population standard variance unknown	<b>18</b>	<b>CO1 - CO5</b>	<b>K1- K5</b>

<b>IV</b>	<p><b>Module IV: Hypothesis Testing</b></p> <p>Formulation of statistical hypotheses - Null and alternative; Goodness of fit - Confidence intervals - one tailed and two tailed tests and level of significance - Type I and Type II errors - Power of the test and decision making.</p> <p>Hypothesis testing - t test — Cases - Population standard deviation is unknown - Independent samples, Paired samples - Chi-square test-contingency table and F-tests — Anova - One way classification - Properties — Uses and application - Degrees of freedom.</p>	<b>18</b>	<b>CO1 - CO5</b>	<b>K1- K5</b>
<b>V</b>	<p><b>Module V: Correlation and Regression and Association of Attributes</b></p> <p>Correlation Analysis - Correlation: types of correlation - Scatter diagram, Sample correlation coefficient - Karl Pearson's correlation coefficient and its properties - Probable error of correlation coefficient - Spearman's rank correlation coefficient.</p>	<b>18</b>	<b>CO1 - CO5</b>	<b>K1- K5</b>
	<p>Regression Analysis Two variable linear regression analysis - Estimation of regression lines (Least square method) and regression coefficients - Their interpretation and properties. Methods of estimation — Least square method and method of maximum likelihood - Difference between correlation and regression analysis - Association of attributes - Terminologies and notations - Consistency of data - Coefficient of attributes.</p>			

**Prescribed Books/Textbooks (1-5 books)**

4. Sancheti, D.C. and Kapoor, V.K., "Statistics – Theory, Methods and Applications", Seventh Edition, Sultan Chand and Sons, New Delhi, 2010.
5. Shukla, M.C. and Gulshan, S. S., "Statistics", Sultan Chand and Sons, New Delhi, 2005.
6. Veerarajan, T., "Probability, Statistics Random Processes", Tata McGraw Hill Education Pvt. Ltd., New Delhi, 2009.
7. Vittal, P.R., "Mathematical Statistics", Margham Publications, 2020.

**References (3 – 5)**

1. Agarwal, B.L., “Basic Statistics”, Fifth Edition, New Age International (P) Ltd., New Delhi, 2012.
2. Anderson, Sweeney and Williams., “Statistics for Business and Economics”, Cengage, 2014.
3. Arora, P. N., Sumeet Arora and Amit Arora, “Elements of Statistical Methods”, S. Chand & Company Ltd., New Delhi, 2009.
4. Gupta, S.C., “Fundamentals of Statistics”, Seventh Edition, Himalaya Publishing House, Mumbai, 2018.
5. Gupta, S.P., “Elementary Statistical Methods”, Eighteenth Edition, Sultan Chand and Sons, New Delhi, 2014.

**Suggested Reading (2 -5)**

- Gupta, S.P., “Statistical Methods”, Sultan Chand and Sons, New Delhi, 2017.
- Monga, G. S., “Mathematics and Statistics for Economics”, Third Edition, Vikas Publishing House Pvt. Ltd., New Delhi, 2017.
- Pillai R.S.N., and Bagavathi, V., “Statistics – Theory and Practice”, Seventh Edition, S.Chand & Co., New Delhi, 2017.

**Web Resources (3-5)**

1. <https://www.statista.com>.
2. <https://techjury.net>
3. [https://dss.princeton.edu/online\\_help/analysis/interpreting\\_regression.html](https://dss.princeton.edu/online_help/analysis/interpreting_regression.html)

**Course Articulation Matrix**

Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1		3	3	-	2	3	2	1	2	3	-	-	-	-	K1
CO 2		2	1	1	1	3	-	-	-	-	-	-	-	3	K2
CO 3		3	2	1	3	3	1	2	1	-	-	-	-	3	K4
CO 4		1	3	2	-	3	2	2	2	-	2	3	-	-	K3
CO 5		-	-	3	1	3	3	3	3	-	3	-	3	3	K5 & K6
Wt. Avg.		2.25	2.25	1.75	1.75	3	2	2	2	3	2.5	3	3	3	32
Overall Mapping of the Course													PO-2.15 PSO- 2.53		

### ALLIED – II – AGRICULTURAL ECONOMICS

<b>Course Code</b>			
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part III – b</b>	<b>Allied – II</b>	<b>Theory</b>
<b>Semester</b>	<b>IV</b>		
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards</b>		
<b>Course Objectives</b>	Upon completion of this course, students will gain a comprehensive understanding of agricultural productivity factors, rural financial systems, and marketing strategies. They will analyze the impact of globalization on Indian agriculture, assessing challenges and opportunities within the context of international agreements and economic integration.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	List out the factors influencing agricultural productivity, various land classifications, cropping patterns, and modernization techniques, while understanding the significance of agriculture in the Indian economy and recall the role of NABARD.	PSO 1, PSO 2	<b>K1</b>
<b>CO 2</b>	Explain the causes of low productivity, fragmentation of land holdings and the problem of rural indebtedness.	PSO 3, PSO 4	<b>K2</b>
<b>CO 3</b>	Identify the various problems of agricultural marketing and factors which result in a debt trap.	PSO 2, PSO 4	<b>K3</b>
<b>CO 4</b>	Analyze agricultural pricing mechanism, marketing strategy, PDS and MSP's in India.	PSO 3, PSO 4	<b>K4</b>
<b>CO 5</b>	Evaluate the role of international agreements such as the Agreement on Agriculture (AoA) in shaping agricultural policies in India and opportunities presented by global economic integration.	PSO 3, PSO 4 & PSO 5	<b>K5</b>

<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	<b>AGRICULTURAL PRODUCTIVITY</b> Land resource - Classification of land - Cropping pattern in India - Factors affecting cropping pattern. - Occupational structure of the people - Importance of agriculture in Indian economy - Agriculture productivity in India - Causes for low productivity – labour productivity in agriculture. - Modernization of agriculture. – Share of agriculture and allied activities in GDP and employment in India	12	<b>CO1 to CO5</b>	<b>K1 to K5</b>

<b>II</b>	<b>AGRICULTURAL HOLDINGS AND IRRIGATION</b> Agricultural Holdings – meaning and Types - Pattern of land holdings in India – Fragmentation/Sub-division of holdings - Marginal/small: holdings – characteristics advantages and disadvantages. Irrigation management-need - role - types - benefits - causes for inadequate utilization of irrigation potential - measures for effectively increasing irrigation potential. Subsidies/Schemes - MNREGA/Free electricity. Protective Agriculture Zone (PAZ) and its impact on agriculture	18	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>III</b>	<b>RURAL INDEBTEDNESS AND RURAL CREDIT</b> Rural indebtedness - source of rural debt - causes and consequences –debt trap- Farmer suicides. -Role of State in relation to debt relief measures - role of public investment in agriculture. Rural credit: - need – classification. Sources of Rural Credit. Institutional and Non-Institutional financing: NABARD - Co-operative Credit Societies: merits & demerits - rural money lenders	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>IV</b>	<b>AGRICULTURAL PRICING AND MARKETING</b> Fluctuation in agricultural prices: Causes and impact. Price Stabilization - its meaning - need for stabilization - Agricultural Price Policy: Minimum Support Price (MSP) – Fair and Remunerative Price – Procurement Price - Multi-Commodity Exchange (MCX). Role of Commission for Agricultural Costs and Prices (CACP). Warehousing: Role of Food Corporation of India (FCI). Agricultural Marketing: types - defects. Marketing Agencies – Public Distribution System (PDS) and its impact – e-Nam..	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>



V	<p><b>IMPACT OF GLOBALISATION ON INDIAN AGRICULTURE</b></p> <p>Problems and Prospects of Indian Agriculture with specific focus on Globalization of Indian Economy. Agriculture-Industry linkages. Council for Advancement for People's Action and Rural Technology (CAPART). Export possibilities in agriculture: World Trade Organisation (WTO) and Agreement on Agriculture (AoA) – Review of Agricultural Policies in India.</p>	15	CO1 to CO5	K1 to K5
<p><b>Prescribed Books/Textbooks</b></p> <ol style="list-style-type: none"> <li>1. Bhalla, G.S (2007), Indian Agriculture since Independence, National Book Trust, India. (Chapters: 6, 7, 8, 9, 10 and 11)</li> <li>2. C.B. Singh and R.K. Singh (2011), A Textbook of Agricultural Economics, Laxmi Publications, New Delhi (Chapters: 1, 2, 4, 7, 8, 12, 13, 15, 16, and 19)</li> <li>3. Bhaduri, A. (1983), The Economic Structure of Backward Agriculture, Macmillan, Delhi. (Chapters: 4, 5, 6, 9, 11)</li> </ol>				
<p><b>References</b></p> <ol style="list-style-type: none"> <li>1. Bilgrami, S. A. R (2017), Agricultural Economics, Himalaya Publishing House, Delhi. (Chapters: 3, 4, 5, 6, 7, 8 and 9)</li> <li>2. Danwala, M.L. et.al. (1991) Indian Agriculture Development Since Independence, Oxford &amp; IBH, New Delhi (Chapters: Chapter: 4, 6, 7, 8, 11, 12 and 16)</li> <li>3. NIRD, (2009) “WTO and its implications on Indian Agriculture (Chapters :1, 2, 3, 5, 6, 7, and 8)</li> </ol>				
<p><b>Suggested Readings</b></p> <ol style="list-style-type: none"> <li>1. Kahlon, A.S. and Tyagi D.S. (1983), Agriculture Price Policy in India, Allied Publishers, New Delhi</li> <li>2. Rudra, A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.</li> </ol>				
<p><b>Web Resources</b></p> <ol style="list-style-type: none"> <li>1. <a href="https://agcensus.nic.in/">https://agcensus.nic.in/</a></li> <li>2. <a href="https://eands.dacnet.nic.in/publications.htm">https://eands.dacnet.nic.in/publications.htm</a></li> <li>3. <a href="https://prsindia.org/policy/analytical-reports/state-agricultureindia#:~:text=Despite%20high%20levels%20of%20production,%2Fhectare%20in%202014%2D15.">https://prsindia.org/policy/analytical-reports/state-agricultureindia#:~:text=Despite%20high%20levels%20of%20production,%2Fhectare%20in%202014%2D15.</a></li> </ol>				

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8		PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	3	3								3	2.5				K1
CO 2		2	2			2	2	2				2.5	2		K2
CO 3	3	3	2.5			2	2	2			3		2.5		K3
CO 4		2	2			2	2	2				2	2		K4
CO 5		2	2	2	2	2	1	3				2	2.5	2	K5
Wt. Avg.	3	2.4	2.12 5	2	2	2	1.75	2.25		3	2.75	2.167	2.25	2	
													Po - 2.172/PS O – 2.433		

## ECONOMICS OF EDUCATION AND HEALTH

<b>Course Code</b>			
<b>Credits</b>		<b>4</b>	
<b>Hours / Cycle</b>		<b>4</b>	
<b>Category</b>	<b>Part</b>	<b>ID Economics of Education and Health</b>	<b>Theory / Practical</b>
<b>Semester</b>		<b>IV</b>	
<b>Year of Implementation</b>		<b>From the academic year 2024-2025 onwards (this is required as some of the courses may not be revised during particular revisions)</b>	
<b>Course Objectives</b>			
		Economics of Health and Education highlights the demand and supply of health care and studies how scarce healthcare resources are allocated among competing interventions and groups in society. This course introduces the basic concepts of Education and health and practical issues faced by decision-makers at all levels in the health system. It also studies the allocation of scarce resources so that the choices they make maximize health benefits to the population.	
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Identify and understand the health indicators such as morbidity, mortality, and life expectancy rate.	<b>PSO 1 PSO 3 PSO 4</b>	<b>K2</b>
<b>CO 2</b>	Acquire knowledge and analyse the theoretical issues in health demand and health supply systems in India	<b>PSO 2 PSO 4</b>	<b>K3</b>
<b>CO 3</b>	Analyze and understand the availability of health and education infrastructure in India including public and private expenditure on health and education in India.	<b>PSO 1 PSO 3 PSO 4</b>	<b>K4</b>
<b>CO 4</b>	Elaborate on and learn in detail about nutrition and measures of poverty in India.	<b>PSO 1 PSO 2 PSO 3 PSO 5</b>	<b>K5</b>
<b>CO 5</b>	Perceive, Appraise and examine the principles of health insurance with reference to problems of the ageing population. Understand the educational bodies in India and major education reforms in India so far.	<b>PSO 2 PSO 4 PSO 5</b>	<b>K6</b>

SYLLABUS				
UNIT	CONTENT	HOURS	Cos	BLOOM'S TAXONOMY LEVEL
<b>I</b>	<b>INTRODUCTION TO ECONOMICS OF HEALTH</b> Determinants of health - Demand and supply of health- Shifts in the demand and supply curves - Opportunity cost - Health care services - Preventative, Curative, Promotional and Rehabilitative health care – Public, Private and Public Private Partnership in health care service - Role of health in Human development – Growth and Development - Importance - Relationship with macroeconomic performance – Health sector and pandemics.	<b>10</b>	<b>CO 1 CO 4</b>	<b>K1, K2,</b>
<b>II</b>	<b>KEY HEALTH INDICES</b> Health indicators (BMI-BR-DR-IMR-MMR-Fertility Rate)-Morbidity- Physical Quality of Life Index (PQLI) and Human Development Index (HDI) – Disability Adjusted Life Year (DALY) - Quality of Adjusted Life Year (QALY) - Epidemics-its Eradication-Tropical diseases - Food and nutrition	<b>20</b>	<b>CO 1 CO 2 CO 3</b>	<b>K3, K3, K4</b>
<b>III</b>	<b>HEALTH SECTOR IN INDIA</b> Resource allocation – Budget and GDP – Government Policies: National Health Policies – Schemes and Programmes – Status of current health care sector in India.Health Insurance – Types – Individual Insurance Plan – Group Insurance Plan-Floater Insurance Plan – Asymmetric Information-	<b>20</b>	<b>CO 3 CO 4</b>	<b>K4, K5</b>

	Market Failure- Adverse Selection and Moral Hazard.			
<b>IV</b>	<b>EDUCATIONAL INDICATORS</b> Education – Formal and Informal education – Levels of formal education – Educational indicators – Literacy Rate (LR) – Adult Literacy Rate (ALR) – Literacy Gender Parity Index (LGPI) – Admission rate (AR) Gross Enrolment Ratio (GER) – Attendance Rate – Absenteeism – Marks obtained – Grades – Dropout Rate (DR) – Child Labour – Educational expenditure on Government and Parents – Skill Development – Public-Private Partnership (PPP) model on education.	<b>15</b>	<b>CO 3 CO 4</b>	<b>K4, K5</b>
<b>V</b>	<b>EDUCATIONAL BODIES IN INDIA AND EDUCATIONAL REFORMS</b> Educational bodies in India – The Ministry of Education – Central Board of Secondary Education (CBSE), National Council of Educational Research and Training (NCERT) - The University Grants Commission (UGC) – All India Council for Technical Education (AICTE) the Distance Education Council (DEC) – The Indian Council for Agriculture Research (ICAR) –The Bar Council of India (BCI) – The Central Council of Indian Medicine (CCIM), National Council for Teacher Education (NCTE) – Enhancing the quality of the Indian Education system – Contribution of Kamaraj on Education in Tamil Nadu – Educational Reforms in India – New Education Policy (NEP) 2020.	<b>10</b>	<b>CO 2 CO 5</b>	<b>K4, K5, K6</b>

**Prescribed Books/Textbooks**

- Pushpalata Patnaik, (2013), Health Economics. Black Prints India Inc. (Chapters: 2, 3, 4, 5, 7, and 8)
- David Wonderling et.al (2011), Introduction to Health Economics. McGraw Hill Education (Chapters: 1, 2, 3, and 4)
- Jayapalan. N (2005), History of Education in India. Atlantic publisher (Chapters: 3, 4, 5, 6, and 8)

## References

Hollis Chenary and T.N.Srinivasan (1988), Handbook of Development Economics Vol-I (Chapters: 13 and 14

Website:

1. [www.unicef.org](http://www.unicef.org)
2. [www.india.gov.in/health-family-welfare](http://www.india.gov.in/health-family-welfare)
3. [www.fpai.org](http://www.fpai.org)
4. [www.ihpi.mohfw.gov.in](http://www.ihpi.mohfw.gov.in)

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	-	2	-	-	-	-	-	-		2		2	2		K 2
CO 2		2	2				2	2	2		2		2		K 3
CO 3		2	2				2	2	2	2		2	2		K4
CO 4		2	3	2	2	2		2	2	2	2	2		2	K 5
CO 5		2	3	2			2	2	2		2		2	2	K 6
Wt. Avg.		2	2	2	2	2	2	2		2	2	2	2	2	
Overall Mapping of the Course													PO-2 / PSO-2		

# **SEMESTER - V**

**Course title: PUBLIC FINANCE THEORY AND PRACTICE**

<b>Course Code</b>	<b>191EC05M01</b>		
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>V</b>		
<b>Year of Implementation</b>	<b>From the academic year .....2024-25.....onwards</b>		
<b>Course Objectives</b>	<p>Students will learn the building blocks of public finance theory and how governments function.</p> <p>It will help students to understand public revenue, budgetary allocations, deficits, etc and the more practical aspects of public finance like how governments (at the Centre and at the States) share power, resources and responsibilities amongst themselves.</p>		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand the difference between public goods and private goods, the understand and remember the key functions of public policy, analyse and the concept of Pigouvian taxes and subsidies.	<b>PSO – 1, PSO – 3, PSO – 4</b>	<b>K1</b>
<b>CO 2</b>	Understand the various approaches to equity principle in taxation, understand tax incidence and analyse the impact of various kinds of taxes and evaluate the impact of tax reforms followed in India.	<b>PSO – 1, PSO – 3</b>	<b>K2</b>
<b>CO 3</b>	Understand the concept of public expenditure, its structure, growth and reforms; apply its application in the study of cost-benefit analysis and evaluate public expenditure benefit incidence analysis	<b>PSO – 1, PSO – 3, PSO – 4</b>	<b>K3</b>
<b>CO 4</b>	Remember and understand the various sources of public debt; analyse the burden of public debt and deficit; evaluate the reforms in public debt management in India.	<b>PSO – 1, PSO – 3</b>	<b>K4</b>
<b>CO 5</b>	Understand, analyse and evaluate the system of fiscal federalism and the emerging imbalances thereof; understand the role of Finance Commission in devolution of power and resources between the different units of the government.	<b>PSO – 2. PSO – 5</b>	<b>K5/K6</b>

**SYLLABUS**



<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	<b>INTRODUCTION TO PUBLIC FINANCE</b> Public Finance – Need for the public sector in the Economy – Fiscal functions – Allocation, Distribution, Stabilization and Coordination of the Budget Function. Social goods – Pure public goods – Congestible public goods – Price-excludable public goods – Merit goods – Social goods and Market Failure – Public goods and externalities – Pigouvian taxes and subsidies – Theory of Public Choice – Political equilibrium under simple majority – Arrow's Impossibility Theorem.	<b>15</b>	<b>CO1 TO CO5</b>	<b>K1 TO K5</b>
<b>II</b>	<b>PUBLIC REVENUE</b> Sources of public revenue – Tax and Non-tax revenues – Canons of Taxation – Approaches to equity in taxation – Ability to Pay Principle – Benefit Principle – Horizontal and Vertical Equity – Taxable capacity and factors influencing taxable capacity - Tax rate structure. Tax Incidence – Rules of Tax Incidence – Elasticities and Tax Incidence – Tax incidence under different market conditions – Excess burden of taxation.	<b>15</b>	<b>CO1 TO CO5</b>	<b>K1 TO K5</b>
<b>III</b>	<b>PUBLIC EXPENDITURE</b> Public Expenditure – Canons of Public Expenditure – Causes of growth of Public Expenditure – Wagner's Law of Increasing State Expenditure – Peacock Wiseman Hypothesis - Evaluation of Public Expenditure – Types of Benefits and Costs in Public Expenditure – Cost Benefit Analysis – Social and Private Cost Benefit Analysis – Efficiency versus Equity in Public Expenditure – Principle of Maximum Social Advantage – Public Expenditure Benefit Incidence Analysis – Concentration Curves. Structure and Growth of Public Expenditure in India – Economic Reforms and controls of Public Expenditure in India.	<b>15</b>	<b>CO1 TO CO5</b>	<b>K1 TO K5</b>
<b>IV</b>	<b>PUBLIC DEBT</b> Objectives of Public Debt – Types of Public Debt – Sources of Public Debt – Burden of Public	<b>15</b>	<b>CO1 TO CO5</b>	<b>K1 TO K5</b>

	Debt – Interest cost as a burden on future generations – Public Debt Servicing Techniques – Deficit – Types of Deficits – Deficits, Debt and Economic Growth – Debt-GDP Ratio. Structure and Growth of Public Debt in India – Burden of Debt Servicing in India – Public Debt Management in India – Issues in Public Debt Management in India - Fiscal Responsibility and Budget Management Act, 2003.			
<b>V</b>	<b>FISCAL FEDERALISM IN INDIA</b> Decentralization – Welfare Gains From Multiple Fiscal Units - The Decentralization Theorem (Oates) - Fiscal Federalism – Seventh Schedule of the Constitution of India – Fiscal Imbalance – Vertical and Horizontal Fiscal Imbalance – Intergovernmental Grants - Finance Commission - Scope of the Finance Commission – Report of the latest Finance Commissions – Taxation Reforms in India – GST – The GST Council and its functions – Recent Experiences with GST implementation and revenue collection in India.	<b>15</b>	<b>CO1 TO CO5</b>	<b>K1 TO K5</b>

#### **Prescribed Books/Textbooks**

1. Public Finance and Public Choice. John Cullis and Philip Jones (2015), Oxford University Press Inc., New York.
2. Public Finance in Theory and Practice (5th Ed.) – Richard A. Musgrave and Peggy B. Musgrave (1989). Mc-Graw Hill Book Company. Singapore.
3. Public Economics in India - Theory and Practice (2nd Ed.) - Janak Raj Gupta (2011). Atlantic Publishers and Distributors P Ltd, New Delhi.

#### **References**

1. Public Finance – A Contemporary Application of Theory to Policy. David Hyman (2015), South-Western Cengage Learning.
2. Economics of the Public Sector (4th Ed.) – Joseph. E. Stiglitz and Jay K. Rosengard (2015), W.W. Norton & Company.
3. Readings in Public Finance – Amaresh Bagchi (2006), Oxford University Press, New Delhi.
4. Indian Economy. 72nd Ed. – Gaurav Datt and Ashwani Mahajan (2016), S Chand Publishing; Seventy Second edition.

#### **Suggested Reading**

1. Indian Economy. Madhur M. Mahajan (2020), Pearson India Educational Services Pvt. Ltd.
2. The Indian Economy: Policies, Practices and Heresies. Jayanta Sarkar (2007), Pearson Longman.
3. Hyman, D. (2014). Public Finance: A Contemporary Application of Theory to Policy (11th ed.). Cengage Learning (2014).

#### **Web Resources**

1. <https://www.youtube.com/watch?reload=9&v=AhVR7gFMKNg>

2. <https://www.elibrary.imf.org/view/IMF069/22254-9781498330664/22254-9781498330664/ch02.xml?language=es&redirect=true>
3. <https://www.indianeconomy.net/splclassroom/what-is-deficit-financing-what-are-the-different-types-of-deficits-in-the-budget/>

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	3	3	3	3	3	3	2	2	3	-	3	3	-	K1, K2, K4
CO 2	3	3	2	3	3	3	2	2	3	-	3	-	-	K2, K4, K5
CO 3	3	3	2	3	3	3	2	2	3	-	3	3	-	K2, K3, K5
CO 4	3	3	2	3	2	3	2	2	3	-	3	-	-	K1, K2, KO, K5
CO 5	3	3	2	3	2	3	2	2	-	3	-	-	3	K2, K4, K5
Wt. Avg.	3	3	2.2	3	2.6	3	2	2	3	3	3	3	3	
Overall Mapping of the Course												2.6	3.0	

## ECONOMICS OF INDUSTRY

<b>Course Code</b>			
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part III - a</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>V</b>		
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards</b>		
<b>Course Objectives</b>	This course aims to deepen students' understanding of industrial dynamics in India, spanning from sectoral linkages and market behaviour to productivity metrics and the impact of economic policies, fostering critical insights into the complexities of industrial development and economic reforms.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Recall and recognize the fundamental aspects of industry and the economy, market structures, investment planning methods, productivity concepts, pricing mechanisms, financing modes and economic reforms in industrial sector.	PSO 1, PSO 3	<b>K1</b>
<b>CO 2</b>	Develop a comprehensive understanding of the structure, behaviour, and performance of industries, a the historical context and evolution of industrial policies and economic reforms shaping the industrial development trajectory.	PSO 1, PSO 2	<b>K2</b>
<b>CO 3</b>	Apply knowledge of industry and the economy to analyse problems related to ownership structures, market conduct, productivity issues and the industrial structure at the time of independence.	PSO 2, PSO 3, PSO 4	<b>K3</b>
<b>CO 4</b>	Examine market structures, industrial conduct, firm behaviour, productivity metrics, pricing strategies, financing mechanisms, considering factors such as location theories, growth patterns, and proliferation issues.	PSO 2, PSO 4	<b>K4</b>
<b>CO 5</b>	Assess the impact of sectoral linkages, ownership structures, market dynamics, productivity levels, pricing policies, financing modes, industrial policies, and economic reforms on industrial development.	PSO 3, PS	<b>K5</b>

UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	<b>INDUSTRY AND THE ECONOMY</b> <ul style="list-style-type: none"> <li>Industry and Sectoral linkages – Balanced Unbalanced growth – Ownership structure – Public Private and Co-operative sector – Global markets – Multinational corporations – Role and importance, impact and survival.</li> <li>Significance of size – Large scale, Small Scale, Cottage and village industries – Industrial Competition and Markets</li> <li>Integration - Monopoly control – Mergers and acquisition.</li> </ul>	12	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>II</b>	<b>STRUCTURE-CONDUCT –PERFORMANCE</b> <ul style="list-style-type: none"> <li>Market Structure - Seller's concentration; entry conditions - Economies of scale, Market Structure and profitability, Innovation; Theories of Industrial location – Weber and Sargent Florence; Factors affecting location</li> <li>Market Conduct – Product Pricing - predatory pricing – Investment planning- methods of evaluating investment planning – Mergers and Acquisitions and diversification</li> <li>Market Performance - Growth of a firm; Behaviour of firm- strategies – theories on firm behaviour and strategies Cournot's model and Bertrand's model</li> </ul>	18	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>III</b>	<b>PRODUCTIVITY</b> Concept and measurement of productivity – Productivity in Indian Industries -Industrial sickness. Under-utilisation of capacity- factors accounting for under-utilisation of capacity and consequences – Structure of Industrial Labour - Wages and problems of bonus.	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>IV</b>	<b>PRICING AND FINANCING OF INDUSTRY</b> Pricing in India – Mode of Financing- Equity debt – Bank Finance – Financial Institutions.	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>

V	<b>INDUSTRIAL DEVELOPMENT IN INDIA</b> Industrial Structure at the time of Independence – Industrial Policies – Role of State – Issues of Industrialisation during planning regime – Economic Reforms – Liberalisation, Privatisation, Globalisation-Impact. Industrial growth and pattern. Issues of industrial proliferation.	15	CO1 to CO5	K1 to K5
<b>Prescribed Books/Textbooks</b> <ol style="list-style-type: none"> <li>4. R.R. Barathwal, Industrial Economics New Age International (P) Ltd. Publishers</li> <li>5. Stephen Martin: Advanced Industrial Economics, Blackwell.</li> <li>6. Kapila, Raj and Kapila, Uma (2002), India's Economy in the 21st Century. New Delhi: Academic Foundation.</li> <li>7. S.C.Kuchhal, The Industrial Economy of India, Chaitanya Publishing House (Publisher).</li> </ol>				
<b>References</b> <ol style="list-style-type: none"> <li>1. Mookherjee, D. (1997). Indian Industry: Policies and Performance. Oxford University Press, Edited.</li> <li>2. Jean Tirole: The Theory of Industrial Organization, (MIT Press) Prentice Hall India. Oz Shy: Industrial Organization, MIT Press</li> <li>3. Kaushik Basu: Lectures in Industrial Organization Theory, Blackwell.</li> <li>4. Richard Schmalensee and Robert D. Willig (Ed:), Hand Book of Industrial Organization, Volume I and II, North Holland.</li> </ol>				
<b>Suggested Readings</b> <ol style="list-style-type: none"> <li>3. Donald A. Hay and Derek J. Morris: Industrial economics and organization; theory and evidence, Oxford University Press</li> <li>4. Paramita Roy Biswas and Arpita Ghose (2012), Growth, Efficiency &amp; Productivity of Indian Manufacturing Industries Paperback.</li> <li>5. Ahluwalia I. J. (1995), Industrial Growth in India. Oxford University Press, New Delhi.</li> </ol>				
<b>Web Resources</b> <ol style="list-style-type: none"> <li>1. <a href="https://www.tcd.ie/Economics/assets/pdf/SER/1999/Hambrock_Hauptman.pdf">https://www.tcd.ie/Economics/assets/pdf/SER/1999/Hambrock_Hauptman.pdf</a></li> <li>2. <a href="https://www.egyankosh.ac.in/bitstream/123456789/37977/1/Unit-9.pdf">https://www.egyankosh.ac.in/bitstream/123456789/37977/1/Unit-9.pdf</a></li> <li>3. <a href="https://mospi.gov.in/sites/default/files/Statistical_year_book_india_chapters/ch14.pdf">https://mospi.gov.in/sites/default/files/Statistical_year_book_india_chapters/ch14.pdf</a></li> </ol>				

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8		PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2	2.25	2.25							2		2.25			K1
CO 2	2.25	2.25								2.25	2				K2
CO 3	2.25	2.25	2			2	2	2			2.25	2	2		K3
CO 4	2	2	2.25			2.25	2.25	2.25			2		2.25		K4
CO 5	2.25	2	2.12 5	2	2		2.25	2.25				2		2.25	K5
Wt. Avg.	2.15	2.15	2.15 6	2	2	2.12 5	2.167	2.167		2.125	2.083	2.083	2.125	2.25	
													PO – 2.114 /PSO – 2.133		

<b>Course Code</b>	<b>ECONOMETRICS</b>		
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>V</b>		
<b>Year of Implementation</b>	<b>2024-2025</b>		
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Teach students how to model relationships between economic variables to recover estimates of population parameters of interest</li> <li>• Assist the students to differentiate between correlation and causality, and how this matters for how we interpret and use statistical analysis</li> <li>• Provide a platform for the study and application of simultaneous equation models for macroeconomic theories using real-time data sets.</li> </ul>		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand the concepts in the econometric methods	PSO 1	<b>K1</b>
<b>CO2 :</b>	Apply the economic concepts in formulating an econometric model	PSO 2	<b>K2</b>
<b>CO3 :</b>	Examine the problems of ignoring OLS assumptions	PSO 6	<b>K3</b>
<b>CO4 :</b>	Elaborate the various forms regressions model	PSO 3	<b>K4</b>
<b>CO5 :</b>	Evaluate the simultaneous equation models	PSO 4	<b>K5</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	<b>INTRODUCTION TO ECONOMETRICS</b>  Econometrics: Definitions, Scope of Econometrics and Divisions in Econometrics Mathematical Economics and Econometrics Statistics and Econometrics, Methodology of Econometrics- Population regression function Stochastic specification of population	<b>18</b>	<b>CO1 - CO5</b>	<b>K1 – K5</b>



	regression function- Significance of the error term Sample regression function, variable - Mean and variance of linear functions of a random variable.			
<b>II</b>	<b>ESTIMATION :</b> The method of ordinary least square method- Principle- Assumption-Properties of ordinary least square estimator- Gauss-Markov theorem- Coefficient of Determination- R Square- Adjusted R Square- Confidence Interval- 't' statistic / p value- Residual diagnostics: Stability and Normality tests- Interpretations of (ANOVA) table , Chi Square and F statistic-Estimation of three variable model( only Basic Ideas).	<b>18</b>	<b>CO1 - CO5</b>	<b>K1 – K5</b>
<b>III</b>	<b>VIOLATIONS OF CLASSICAL LINEAR REGRESSION ASSUMPTIONS</b>  Multicollinearity- Heteroscedasticity-Autocorrelation: nature, detection, practical consequences and remedial measures.	<b>18</b>	<b>CO1 - CO5</b>	<b>K1 – K5</b>
<b>IV</b>	<b>FUNCTIONAL FORMS AND DUMMY VARIABLE REGRESSION MODELS</b>  Double log, Semi log model and reciprocal transformation- Regression on one quantitative variable and one qualitative variable with two categories- Uses of dummy variable analysis.	<b>18</b>	<b>CO1 - CO5</b>	<b>K1 – K5</b>
<b>V</b>	<b>DISTRIBUTED LAG MODEL AND SIMULTANEOUS EQUATION</b>  Role of lags in economics- Reasons for lag Adhoc and Koyck estimation of distributed lag models-Nature of simultaneous equation-Simultaneous equation bias-Structure and Reduced form equations- Identification- Rank order conditions Indirect least square estimation.	<b>18</b>  –	<b>CO1 - CO5</b>	<b>K1 – K5</b>

**Prescribed Books/Textbooks (1-5 books)**

1. Damodar N Gujarati, Dawn C Porter & Manoranjan Pal Sangeetha (2021), Basic Econometrics, Sixth edition(Special Indian Edition), Tata McGraw Hill.
2. Wooldridge J (2012): Introductory Econometrics: A Modern Approach, 5/E South Western.

Green,

3. William H.(2018), Econometric Analysis, Eighth Revised Edition. Pearson P.Ltd.

## Text Books:

4. Damodar N Gujarati, Dawn C Porter & Manoranjan Pal Sangeetha (2021), Basic Econometrics, Sixth edition(Special Indian Edition), Tata McGraw Hill.
5. Wooldridge J (2012): Introductory Econometrics: A Modern Approach, 5/E South Western. Green,
6. William H.(2018), Econometric Analysis, Eighth Revised Edition. Pearson P.Ltd.

## References:

1. Christopher Dougherty (2011), Introduction to Econometrics, 4th edition, OUP, Indian edition.
2. H.Studenmund , A Practical Guide to Using Econometrics,Pearson P.Ltd 7<sup>th</sup> Edition,2017.
3. Jeffrey M. Wooldridge (2014), Introduction to Econometrics: A Modern Approach, 7th Edition, Cengage Learning.
4. Johnston J (2006): Econometrics Methods ,3rd Edition, McGraw Hill.

### Web Resources (3-5)

1. <https://www.youtube.com/@thomachankt8235>
2. <https://learneconometricsfast.com>.
3. <https://www.youtube.com/@sayedhossain23>

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1		3	3	-	2	3	2	1	2	3	-	-	-	-	K1
CO 2		2	1	1	1	3	-	-	-	-	-	-	-	3	K2
CO 3		3	2	1	3	3	1	2	1	-	-	-	-	3	K4
CO 4		1	3	2	-	3	2	2	2	-		3	-	-	K3
CO 5		-	-	3	1	3	3	3	3	-	1	-	3	3	K5 & K6
Wt. Avg.		2.25	2.25	1.75	1.75	3	2	2	2	3	1	3	3	3	31
Overall Mapping of the Course													PO-2.15 PSO- 2.66		

	<b>ECONOMICS OF ENTREPRENEURSHIP</b>		
<b>Course Code</b>			
<b>Credits</b>	<b>5</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part III – a</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>V</b>		
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards</b>		
<b>Course Objectives</b>	This course endeavours to equip students with a comprehensive understanding of entrepreneurship, covering essential aspects such as theories, functional areas, financial and non-financial institutional support, feasibility studies, and project report preparation. Students will gain insights into the role of entrepreneurship in economic development and its significance in fostering innovation and growth.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Recall fundamental entrepreneurship concepts and theories, including types of entrepreneurship, motivational theories, and roles of financial and non-financial institutions	PSO 1, PSO 2	<b>K1</b>
<b>CO 2</b>	Explain the significance of entrepreneurship in economic development, analysing entrepreneurial functions, managerial distinctions, and institutional support.	PSO 2, PSO3	<b>K2</b>
<b>CO 3</b>	Apply entrepreneurship knowledge to real-world scenarios, demonstrating skills in opportunity identification, technology selection, market analysis, strategy formulation, and project report preparation.	PSO 3, PSO 4	<b>K3</b>
<b>CO 4</b>	Analyse entrepreneurship complexities, considering management decisions, economic influences, and institutional roles, utilizing SWOT analyses, project management techniques, and program evaluations.	PSO 3, PSO 4	<b>K4</b>
<b>CO 5</b>	Evaluate entrepreneurship impacts, including contributions to economic development, effectiveness of institutional support, and viability of feasibility studies.	PSO 4. PSO 5	<b>K5</b>

UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
I	<b>INTRODUCTION</b> <ul style="list-style-type: none"> <li>Entrepreneurship: Meaning – Definition – Women entrepreneurs - Types – Characteristics - Role and functions of Entrepreneurship in economic development – Difference between an entrepreneur and a manager.</li> <li>Theories of Entrepreneurship: Maslow's need Hierarchy theory – McClelland's theory of needs and motivation - Kirzner's view, Baumol's and Peter Drucker's view on entrepreneurship - Mark Casson theory of Entrepreneurship.</li> </ul>	12	CO1 to CO5	K1 to K5
II	<b>FUNCTIONAL ASPECTS OF ENTREPRENEURIAL AREAS</b> Planning – Organizing – Staffing – Leading and Control – Management Decisions and Economic environment – Identification of opportunities – Choice of Technology – Identification of opportunities – Choice of technology - Product selection and Development – Costing: Types – Importance-Market Survey –Market Strategy – Sales Promotion and Advertising.	18	CO1 to CO5	K1 to K5
III	<b>FINANCIAL INSTITUTIONS SUPPORT TO ENTREPRENEURS</b> <ul style="list-style-type: none"> <li><i>Role and functions of financial Institutions:</i> Industrial Financial Corporation of India(IFCI), The Small Industries Development Bank of India (SIDBI), The Small Industries Development Bank of India (SIDBI), The Industrial Investment Bank of India (IIBI), All-India Development Banks (AIDBs)</li> <li><i>Specialised Financial Institutions:</i> IFCI Venture Capital Ltd (IVCF) –Tourism Finance Corporation of India Ltd (TFCI) – Unit Trust of India (UTI), General Insurance Corporation of India (GIC) – State Financial Corporation (SFC).</li> </ul>	15	CO1 to CO5	K1 to K5
IV	<b>NON-FINANCIAL INSTITUTIONS SUPPORT TO ENTREPRENEURS</b> <i>Role and functions of non- financial Institution :</i> National Small Industries Corporation (NSIC) – Small Industries Development Organization (SIDO) - Small Scale Industries Board (SSIB) –State Small Industries	15	CO1 to CO5	K1 to K5

	Development Corporation (SSID) Small Industries Service Institute (SISI) – District Industries Centre (DICs) – Industrial Estates – Specialized Institutions – Technical Consultancy Organisations (TCOs) – SIPCOT – Entrepreneurship Development Institute of India (EDII).			
<b>V</b>	<b>FEASIBILITY STUDY AND PROJECT REPORT</b> Feasibility Study: Input –Technical/Technology - Marketing – Environment - Economic Viability role need and importance: SWOT Analysis – PERT – CPM – Entrepreneurship Development Programmes (EDPs) - Course Contents of EDP- Format of a Project report - Preparation of a Project Report <b>(Students may choose any one area in the syllabus for Mini Project Work)</b>	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>Prescribed Books/Textbooks</b> <ol style="list-style-type: none"> <li>S.S.Khanka (2020): ‘Entrepreneurial Development’ S Chand and Company Ltd Revised Edition, New Delhi</li> <li>P.T. VijayaShree and M. Alagammai (2020): ‘Entrepreneurial Development and Small Business management’ Margham Publications Revised Edition Chennai.</li> <li>Nuzhath Khatoon (2013): “Entrepreneurial Development” Himalaya Publishing House, New Delhi.</li> </ol>				
<b>References</b> <ol style="list-style-type: none"> <li>N.P.Srinivasan and C.B.Gupta (2015): ‘Entrepreneurial Development’ Sultan and Chand &amp; Sons Edition, New Delhi.</li> <li>Donald F Kuratko (2010): ‘Entrepreneurship: Theory, Process, Practice’ 2nd AsiaPacific Edition</li> <li>Parker SC. <i>The Economics of Entrepreneurship</i>. 2nd ed. Cambridge University Press; 2018.</li> </ol>				
<b>Suggested Readings</b> <ol style="list-style-type: none"> <li>Drucker, P. F. (1985). Innovation and entrepreneurship: practice and principles (1st ed.). Harper &amp; Row.</li> <li>Jean Dreze and Amartya Sen, 2013. An Uncertain Glory: India and its Contradictions, Princeton University Press. • Reetika Khera, 2011, — India’s Public Distribution System: Utilisation and Impact Journal of Development Studies.</li> <li>Moore, G. A. (1991). Crossing the chasm: marketing and selling technology products to mainstream customers. HarperBusiness. University Press.</li> </ol>				
<b>Web Resources</b> <ol style="list-style-type: none"> <li><a href="https://wcu.edu.et/FirstYearModule/ENTREPRENEURSHIP%20module.pdf">https://wcu.edu.et/FirstYearModule/ENTREPRENEURSHIP%20module.pdf</a></li> <li><a href="https://mrecacademics.com/DepartmentStudyMaterials/20220106-Entrepreneurship.pdf">https://mrecacademics.com/DepartmentStudyMaterials/20220106-Entrepreneurship.pdf</a></li> <li><a href="https://oasis.col.org/server/api/core/bitstreams/24fc6ce7-028e-48b7-8b48-15670a5a5223/content">https://oasis.col.org/server/api/core/bitstreams/24fc6ce7-028e-48b7-8b48-15670a5a5223/content</a></li> </ol>				

Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8		PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2.25	2.25								2.25	2.25				K1
CO 2	2.25	2.25	2								2.25	2			K2
CO 3	2	2	2			2	2	2				2	2		K3
CO 4	2.25	2.25	2.25			2.25	2.25	2.25				2.25	2.25		K4
CO 5	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25					2.25	2.25	K5
Wt. Avg.	2.20	2.20	2.125	2.25	2.25	2.167	2.167	2.167		2.25	2.25	2.083	2.167	2.25	
													PO - 2.19/PSO – 2.2		

### GENERAL ELECTIVE – ECONOMY, STATE & SOCIETY

<b>Course Code</b>			
<b>Credits</b>	<b>3</b>		
<b>Hours / Cycle</b>	<b>4</b>		
<b>Category</b>	<b>Part IV – b</b>	<b>General Elective</b>	<b>Theory</b>
<b>Semester</b>	<b>V</b>		
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards</b>		
<b>Course Objectives</b>	This course aims to equip students with a deep understanding of the historical, social, political, and economic dimensions of modern India. Students will develop analytical skills to critically assess the evolution of Indian society, the functioning of its political system, and the dynamics of its economic development, both pre and post-liberalization. Through this, they will gain insights into the complexities of India's journey as a nation and its role in the global landscape.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Recall and identify key historical events and periods in modern India, including colonial rule, nationalist movements, the Indian Constitution, and economic reforms.	PSO 1, PSO 4	<b>K1</b>
<b>CO 2</b>	Understand the significance and implications of nationalism in India, the functioning of the Indian political system, socioeconomic dynamics, and the impact of globalization on Indian society and economy.	PSO 2, PSO3, PSO 4	<b>K2</b>
<b>CO 3</b>	Apply knowledge of historical and contemporary contexts to analyze and evaluate political, social, and economic issues in India, utilizing concepts such as federalism, caste dynamics, and economic reforms.	PSO 3, PSO 4	<b>K3</b>
<b>CO 4</b>	Analyze and interpret data related to socioeconomic changes, political structures, and policy initiatives in India, evaluating trends in economic growth, poverty, employment, and political governance.	PSO 4, PSO 5	<b>K4</b>
<b>CO 5</b>	Evaluate the effectiveness and consequences of historical events, political systems, socioeconomic policies, and economic reforms in India, considering their impact on national development, social cohesion, and global integration.	PSO 2, PSO 4 & PSO 5	<b>K5</b>

UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	<b>MODERN INDIAN NATION: A HISTORICAL PERSPECTIVE</b> <ul style="list-style-type: none"> <li>India on the eve of British Rule – Colonial Rule under the East India Company from 1757 to the Great Revolt of 1857 – Crown Rule 1857-1947 – Social Conditions of the Indian People under Colonial Rule</li> <li>Nationalism in India – Rise and growth – Indian National Congress – Moderates and Extremists- Gandhi and the emergence of a mass movement for freedom from colonial rule – Role of the Working Class and Peasant movements - Modern Indian Nation State as the product of an anti-colonial struggle uniting people across sentiments of religion, caste, language and region</li> </ul>	12	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>II</b>	<b>CONTEMPORARY INDIAN SOCIETY</b> <ul style="list-style-type: none"> <li>Main features: Large and diverse territory and population - Language, ethnicity, religion and geography as markers of diversity and plurality – Uniqueness of India as a unified Nation state with the highest degree of diversity</li> <li>The Indian Caste System -Hierarchies – Relations of Dominance and Dependence – Untouchability and other forms of caste discrimination/oppression - Caste as a marker of identity in a changing India - Role of affirmative action/positive discrimination</li> <li>Classes and Class Relations - Dynamics of Caste and Class Relations linked to socioeconomic changes such as economic modernization and urbanization</li> <li>Globalization and contemporary Indian Society – Implications for Family and Social Values.</li> </ul>	12	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>III</b>	<b>INDIAN POLITICAL SYSTEM</b> <ul style="list-style-type: none"> <li>The Constitution of India: Evolution, Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy</li> <li>Union Government: Parliament – Powers and functions of key functionaries: President, Vice President, Prime Minister, Council of Ministers and</li> </ul>	12	<b>CO1 to CO5</b>	<b>K1 to K5</b>



	<p>Speaker – Supreme Court of India: independence of Judiciary</p> <ul style="list-style-type: none"> <li>• Federalism and Centre-State Relations – Coalitions at Centre and in the States</li> <li>• Centre-State Financial Relations - Finance Commission -NITI Aayog</li> <li>• State Government: Legislative Assembly – Powers and functions of key functionaries: Governor, Chief Minister, Council of Ministers and Speaker – High Court</li> <li>• Local Government: PRIs &amp; Urban Local Government Institutions</li> </ul>			
<b>IV</b>	<p><b>ECONOMIC DEVELOPMENT IN INDIA, 1950 TO 1990</b></p> <ul style="list-style-type: none"> <li>• Indian Economy at Independence: Population, Education, Health, Agriculture, Industry, Physical and Industrial Infrastructure</li> <li>• Economic Growth Patterns: Overall, Agriculture, Industry, Services</li> <li>• Human Development Trends</li> <li>• Trends in extent of Poverty over time in India and major States</li> <li>• Employment and Unemployment – Trends in terms of quality and quantity</li> <li>• An introduction to Environment, Development and Displacement Issues in India.</li> </ul>	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>V</b>	<p><b>INDIAN ECONOMY SINCE 1990</b></p> <p>Economic reforms of liberalization, privatization and globalization - Growth, poverty, employment and unemployment and food security.</p>	9	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<p><b>Prescribed Books/Textbooks</b></p> <ol style="list-style-type: none"> <li>11. Bipan Chandra, (2009) History of Modern India. New Delhi: Orient Blackswan</li> <li>12. Bidyut Chakrabarty, Rajendra Kumar Pandey(2008) Indian Government and Politics , Sage Publications, New Delhi</li> <li>13. Kapila, Raj and Kapila, Uma (2002), India’s Economy in the 21st Century. New Delhi: Academic Foundation.</li> </ol>				
<p><b>References</b></p> <ol style="list-style-type: none"> <li>8. Kurien C.T (1992) The Economy: An Interpretative Introduction Sage Publications</li> <li>9. Kurien C.T. (1994), Global Capitalism and Indian Economy Orient Longman</li> <li>10. Dutt and K.P.M.Sundaram (2006) Indian Economy, New Delhi, Sultan and Chand Company.</li> </ol>				
<b>Suggested Readings</b>				

9. Kashyap, Subash. (2005), Our Constitution, National Book Trust, New Delhi.
10. Johari, JC. (1995). The Constitution of India – A Politico-Legal Study, Sterling Publishers Pvt. Limited, New Delhi.

#### Web Resources

7. <https://hdr.undp.org/>
8. <https://www.niti.gov.in/sites/default/files/2023-08/India-National-Multidimensional-Poverty-Index-2023.pdf>
9. <https://www.niti.gov.in/>

#### Course Articulation Matrix

Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8		PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2.5	2.75	2.5			2.5	1.5	1.5		1.5			3		K1
CO 2	2	2.25	2			2	1.75	2			2	2.5	2.5		K2
CO 3	2	3	2.5			2	1.75	2				2.25	2.75		K3
CO 4	2	2	2	2.25	2.25	2	2	2					2.25	1.75	K4
CO 5	1.5	2	2	2	2	2	1.5	3			2.25		2.5	2.25	K5
Wt. Avg.	2	2.4	2.2	2.12 5	2.12 5	2.1	1.7	2.1		1.5	2.125	2.375	2.6	2	
													Po - 2.093/PS O – 2.12		

# **SEMESTER - VI**

**Course title: INTERNATIONAL ECONOMICS**

<b>Course Code</b>	<b>191EC6M01</b>		
<b>Credits</b>	<b>6</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>	<b>VI</b>		
<b>Year of Implementation</b>	<b>From the academic year .....2024-25.....onwards (this is required as some of the courses may not be revised during particular revision)</b>		
<b>Course Objectives</b>	The course is designed to provide students gain an in-depth knowledge about the theories associated with international trade and understand the impact of free trade. The course also introduces students to the various tariff and non-tariff barriers to international trade. The students will also learn about the financial dynamics that supports the international trade in goods and services and India's response to international trade at a policy level.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Understand the meaning and importance of international trade and analyse why countries engage in international trade from a theoretical perspective.	<b>PSO-1 PSO-2</b>	<b>K1</b>
<b>CO 2</b>	Understand gains from trade using various theoretical reasoning provided by economists and analyse how international trade serves as an engine of economic growth.	<b>PSO-1 PSO-2</b>	<b>K2</b>
<b>CO 3</b>	Remember and understand the various components of trade policy. Understand and evaluate the need for and impact of regional trade agreements and cooperative arrangements.	<b>PSO-2 PSO-3</b>	<b>K3</b>
<b>CO 4</b>	Understand the financial dynamics behind facilitating international trade. Understand the working of the Balance of Payment accounts, the reasons for disequilibrium, and the way in which the foreign exchange market functions.	<b>PSO-1 PSO-2 PSO-3</b>	<b>K4</b>
<b>CO 5</b>	Understand the significance of Emerging Economies in the global economic order and India's foreign trade policy over the years.	<b>PSO-2 PSO-4 PSO-5</b>	<b>K5/K6</b>

**SYLLABUS**

UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	<b>INTRODUCTION TO INTERNATIONAL ECONOMICS</b> The subject matter and importance of International Economics – Inter-regional and International trade – Theoretical Perspectives in International Economics: Autarky – Mercantilists' School of Thought – Adam Smith's Theory of Absolute Advantage – David Ricardo's Theory of Comparative Advantage – Comparative Advantage and Opportunity Costs – Introduction of opportunity Cost and increasing costs to the traditional trade theories.	<b>15</b>	<b>CO1, TO CO5</b>	<b>K1 TO K5</b>
<b>II</b>	<b>GAINS FROM TRADE AND TRADE THEORIES</b> Gains from Trade: Equilibrium with and without International Trade – The Trade Triangle – Terms of Trade – Demand and Supply in International Trade – Trading Equilibrium using the Offer Curves – Elasticity and the Offer Curves – J.S. Mill's Theory of Reciprocal Demand – Mill's Paradox – The Heckscher-Ohlin Theory of International Trade – The Leontief's Paradox – The Gravity Model of International Trade – Foreign Trade as an Engine of Growth.	<b>15</b>	<b>CO1, TO CO5</b>	<b>K1 TO K5</b>
<b>III</b>	<b>TRADE POLICY</b> Arguments For and Against Free Trade – Barriers to Free Trade: Tariffs – Types – Measurement of Tariffs (Unweighted, Weighted, Prohibitive Tariff) – Quotas – Preferential Duties – Generalized System of Preferences – Most Favoured Nation – Offshore Assembly Provisions - Non-tariff Measures (NTMs) as Barriers to Free Trade – Reasons for implementing NTMs – Types of NTMs. Impact of Trade Restrictions: Welfare implications of Tariff Protection in the Small Country and the Large Country in the case of both partial equilibrium and general equilibrium setting. Tariff Wars – Optimum Tariff – Metzler's Paradox. Regional and International Cooperation: Spread of RTAs and their implications. EU,	<b>15</b>	<b>CO1, TO CO5</b>	<b>K1 TO K5</b>

	NAFTA, SAARC, ASEAN, BRICS and OPEC – The Trans-Pacific Partnership (TPP) - The Regional Comprehensive Economic Partnership (RCEP) – Forums for international economic cooperation: The G7 and G20.			
<b>IV</b>	<b>BALANCE OF PAYMENTS</b> Balance of Trade and Balance of Payments: Concepts and Components – Equilibrium and Disequilibrium in the Balance of Payments: Causes and Consequences – Measures to Correct the Deficit in the Balance of Payments – The Forex Market and The Foreign Exchange Rate – Causes of Fluctuations in the rate of exchange – Devaluation – Merits and Limitations of the Devaluation Approach – The Marshall-Lerner Condition – Foreign Trade Multiplier: Concept and Importance.	<b>15</b>	<b>CO1, TO CO5</b>	<b>K1 TO K5</b>
<b>V</b>	<b>TRADE REFORMS IN INDIA</b> The significance of Emerging Economies in the global economic order – Issues in ‘job export’ from the Global North to the Global South and implications on emerging economies - Foreign Trade in India during the plan period and afterward – Instruments of Export Promotion – SEZs, Multinational Corporations, Foreign Exchange Management Act (FEMA) – Recent changes in the composition and direction of Foreign Trade – Need for and Rationale of Trade Reforms in India – Partial and Full Convertibility of Rupee – Foreign Trade Policy in India since 2015.	<b>15</b>	<b>CO1, TO CO5</b>	<b>K1 TO K5</b>

#### **Prescribed Books/Textbooks**

1. Dennis R. Appleyard and Alfred J. Field, Jr. International Economics (8<sup>th</sup> Edition) (2014). Mc-Graw Hill, Irwin.
2. Dominic Salvatore. International Economics (11<sup>th</sup> Edition) (2013). Wiley.
3. Paul R. Krugman, Maurice Obstfeld, Marc J. Melitz. International Economics – Theory and Policy (9<sup>th</sup> Edition). Pearson. (2012).

#### **References**

1. Robert J. Carbaugh. International Economics (10<sup>th</sup> Edition) (2005). Thomson South-Western.
2. Dominic Salvatore. Theory and Problems of International Economics (3<sup>rd</sup> Edition). Mc-Graw Hill Inc. (2013).
3. International Economics. Author, H. G. Mannur. Publisher, Vikas, (1995)

#### **Suggested Reading**

1. Indian Economy. 72<sup>nd</sup> Ed. – Gaurav Datt and Ashwani Mahajan. S Chand Publishing; Seventy Second edition (2016).
2. Indian Economy. Madhur M. Mahajan. Pearson India Educational Services Pvt. Ltd. (2020).
3. The Indian Economy: Policies, Practices and Heresies. Jayanta Sarkar. Pearson Longman (2007)

**Web Resources**

<https://pressbooks.bccampus.ca/uvicecon103/chapter/4-7-tariffs/>

[https://en.wikipedia.org/wiki/Global\\_North\\_and\\_Global\\_South](https://en.wikipedia.org/wiki/Global_North_and_Global_South)

<https://milnepublishing.geneseo.edu/genderedlives/chapter/chapter-15-the-global-north-introducing-the-region/>

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	3	3			3	3		3	3					K1, K2, K4
CO 2	3	3			3	3			3					K1, K2, K4
CO 3	3	3	3	2	3	3		3	3	3	3			K1, K2
CO 4	3	3	3		3	3	3		3	3	3			K1, K2, K3
CO 5	3	3	3	2	3	3	3	3	3	3	3	3	3	K2, K5, K6
Wt. Avg.	3	3	3	2	3	3.2	3	3	3	3	3	3	3	
Overall Mapping of the Course											2.9 3.0			

Correlation of POs/PSOs to each CO and make a corresponding mapping table.



<b>Course Code</b>		<b>ECONOMICS OF INSTITUTIONS</b>		
<b>Credits</b>		<b>FIVE (5)</b>		
<b>Hours / Cycle</b>		<b>SIX (6)</b>		
<b>Category</b>		<b>Part - III a</b>	<b>Core</b>	<b>Theory</b>
<b>Semester</b>		<b>VI</b>		
<b>Year of Implementation</b>		<b>From the academic year 2024 - 2025 onwards</b>		
<b>Course Objectives</b>		The main aim of this course is to make students aware of the importance of economic institutions.  It is essential to have a good deal of understanding about the role of economic institutions.		
<b>CO #</b>	<b>Course Outcome(s)</b>		<b>PSO Addressed</b>	<b>Bloom’s Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>				
<b>CO 1</b>	Understand the main characteristics of economic institutions and how economic institutions evolved in response to economic systems – Capitalism, Socialism and both.		<b>PSO 1</b>	<b>K1</b>
<b>CO 2</b>	Understand the dualistic economic theories developed by various economists who belonged to the different school of Institutions		<b>PSO 2</b>	<b>K2</b>
<b>CO 3</b>	Learn the concept of development - pattern of growth and development – stages of growth – unlimited supply of labour – balanced and unbalanced growth theory		<b>PSO 4</b>	<b>K3</b>
<b>CO 4</b>	Study the cooperative movement such as cooperation, cooperative societies, role of cooperation in an economy.		<b>PSO 4</b>	<b>K4</b>
<b>CO 5</b>	Learn the organizational structures of foreign sector, composition of imports and exports and trading houses		<b>PSO 3</b>	<b>K5</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>COs</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	Meaning and Definitions of Economic Institutions - School of Economics of Institutions: Main characteristics - Social, Economical and Political Institutions: Nature and Significance of Institutional Approach in Economics - Veblen's, Commons' and Mitchell's contribution to the theory of economic institutions: Economic system – Capitalism – Socialism	<b>12</b>	<b>CO 1 &amp; CO 2</b>	<b>K1</b>
<b>II</b>	New Institutional Economics - Oliver Williamson's Four levels of social analysis – Contribution made by New Institutional Economists – Ronald Coase – North Douglass – Elinor Ostrom – Herbert Simon - A convergence of researchers resulted in founding the Society for Institutional & Organizational Economics.	<b>12</b>	<b>CO 2 &amp; CO 3</b>	<b>K2</b>
<b>III</b>	Concept of Dualism – Social, Economical and Political dualism: Boeke's Social Dualism – Myint's Financial Dualism – Higgin's Technological Dualism – Prebisch's International Dualism – Inter-Regional and International Dualism – Seer's contribution to international dualism – Gunnar Myrdal's Theory of Cumulative Causation.	<b>12</b>	<b>CO 3 &amp; CO 4</b>	<b>K3</b>
<b>IV</b>	The Concept of Development - Core Values of Development – Development Gap – Absolute development gap – Relative development gap – The New International Economic Order: Pattern of Growth and Development – Chenery's & Syrquin's Pattern of Development – Marx's Theory of Development - Rostow's Stages of Economic Growth Arthur Lewis Unlimited Supply of Labour – Balanced and Unbalanced Growth Theory	<b>12</b>	<b>CO 4</b>	<b>K4</b>
<b>V</b>	Meaning and Significance of Cooperation -Definition - Importance of Cooperation– Principle of Cooperation - Cooperative Doctrines - Ancient and Modern Form of Cooperation – Cooperative Societies - Cooperative	<b>12</b>	<b>CO 5</b>	<b>K5</b>

	Credits: Place of Cooperatives in a Planned Economy - Role of Cooperation in a Dynamic Competitive Economy - Cooperation and Economic Development – Cooperative Movement in India - National Level Cooperative Institutions in India - Cooperative Banking in India			
<b>Prescribed Books/Textbooks</b> <ol style="list-style-type: none"> <li>1. Thirlwall A. P., Growth and Development (2017), 9<sup>th</sup> Edition, English Language Book Society (ELBS) Macmillan Press London.</li> <li>2. Lekhi R.K. and Sing J. (2014), The Economics of Development and Planning, Kalyani Publishers, Ludhiana.</li> </ol>				
<b>References</b> <ol style="list-style-type: none"> <li>5. Michael P. Todaro and Stephen C. Smith. (2017), Economic Development, A 12th Edition, Pearson India Education Services Pvt. Ltd., Noida.</li> <li>6. Alexander Grey &amp; Thomson A.E. (1980), The Development of Economic Doctrine, Longman Group, London,.</li> <li>7. Taneja M.L. &amp; Myer R.M. (2012), Economics of Development &amp; Planning, Vishal Publishing Co, Jalandhar.</li> <li>8. Hajela T.N. (2010), History of Economic Thought, Ane's Student Edition Ane Books, New Delhi.</li> </ol>				
<b>Suggested Reading</b> <ul style="list-style-type: none"> <li>• Hajela T.N (2010), Cooperation: Principles, Problems and Practice, Konark Publishers, New Delhi.</li> <li>• Schumpeter J.A., A History of Economic Analysis, Oxford Press,</li> </ul>				
<b>Web Resources</b> <p> <a href="http://planningcommission.gov.in">http://planningcommission.gov.in</a>  <a href="http://civilaviation.nic.in">http://civilaviation.nic.in</a> <a href="http://mohfw.nic.in">http://mohfw.nic.in</a> <a href="http://www.indianrailways.gov.in">http://www.indianrailways.gov.in</a>  <a href="http://rural.nic.in">http://rural.nic.in</a> <a href="http://morth.nic.in">http://morth.nic.in</a> <a href="http://shipping.gov.in">http://shipping.gov.in</a>  <a href="http://ssi.gov.in">http://ssi.gov.in</a> <a href="http://ssi.gov.in">http://ssi.gov.in</a> <a href="http://commin.nic.in">http://commin.nic.in</a> </p>				

Course Articulation Matrix														
Course Outcomes	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	P O1	P O2	P O3	P O4	P O5	PO 6	PO 7	PO 8	PS O1	PS O2	PS O3	PS O4	PS O5	
CO 1	1	2	3	-	1	2	2	2	2	2	3	3	3	K1
CO 2	1	2	2	-	2	2	1	2	2	3	3	2	2	K2
CO 3	1	2	3	-	3	2	2	2	2	3	2	2	3	K3
CO 4	1	2	2	-	3	2	2	2	2	2	2	2	2	K4
CO 5	1	2	2	-	2	3	2	3	2	2	2	3	2	K5
Wt. Avg.	1	2	2.4	-	2.2	2.2	1.8	2.2	2	2.4	2.4	2.4	2.4	
Overall Mapping of the Course												PO = 2.02 PSO = 2.12		

INDIAN ECONOMY – POLICY & PERFORMANCE			
<b>Course Code</b>			
<b>Credits</b>	5		
<b>Hours / Cycle</b>	6		
<b>Category</b>	Part III – a	Core	Theory
<b>Semester</b>	VI		
<b>Year of Implementation</b>	From the academic year 2024-2025 onwards		
<b>Course Objectives</b>	This course provides students a thorough overview of India's economic journey post-independence, examining policies and performance across agriculture, industry, services, and social sectors. Students will analyze key economic phases, sectoral trends, and contemporary challenges, including the impact of government policies on national development amidst global crises like Covid-19 and demonetization.		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Recall and identify key economic policies, reforms, and crises in India since independence, encompassing the Planning Commission's five-year plans, sectoral reforms, and significant events such as economic crises and policy changes like those during the late 1980s.	PSO 1, PSO 4	<b>K1</b>
<b>CO 2</b>	Understand the policies and performances in agriculture, industry, services, and social sectors, including major cropping patterns, industrial policies, service sector trends, and social welfare measures like the Right to Education Act, 2009.	PSO 2, PSO3, PSO 4	<b>K2</b>
<b>CO 3</b>	Apply their knowledge of economic policies and sectoral performances to analyze issues such as agrarian structure, industrial growth disparities and the impact of government initiatives like Make in India and the Right to Education Act.	PSO 3, PSO 4	<b>K3</b>
<b>CO 4</b>	Dissect trends and performance indicators across agriculture, industry, services, and social sectors, scrutinizing factors such as output, employment, regional variations, and the impact of economic reforms on each sector, while conducting thorough assessments of aspects like industrial sickness and the functioning of the Public Distribution System.	PSO 4, PSO 5	<b>K4</b>
<b>CO 5</b>	Evaluate the effectiveness and consequences of economic policies, reforms, and sectoral performances, considering their implications for national development,	PSO 2, PSO 4 & PSO 5	<b>K5</b>

	social welfare, and addressing contemporary challenges like farm indebtedness, demographic shifts, and the impact of global events such as the Covid-19 pandemic.		
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UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	<b>ECONOMIC DEVELOPMENT SINCE INDEPENDENCE</b> Growth of the Indian economy during 1950-1990 - Planning Commission- five Year Plans - Objectives, achievements and failures of Planning - Economic crisis during the late 1980s - Economic Reforms – Banking sector reforms - Reforms in tax policy - Reforms in the external sector -Reforms in Labour market.	12	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>II</b>	<b>POLICIES AND PERFORMANCE IN AGRICULTURE</b> Major cropping patterns in different parts of the country, different types of irrigation - Growth; productivity; agrarian structure and technology, capital formation - Agricultural marketing - transport and marketing of agricultural produce and issues and associated constraints - Food security and food policy - Pricing and procurement - WTO and Indian agriculture- Direct and indirect farm subsidies and minimum support prices.	18	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>III</b>	<b>POLICY AND PERFORMANCE IN INDUSTRY</b> Industry – industrial policies (1948, 1956, 1991), small scale industries, key industries, industrial sickness, the different committees, disinvestment, PSU policy, industrial finance- Output, employment and productivity growth - Regional variation of industrial growth - Public sector; competition policy - Foreign direct investment in industry - Economic reforms and industry – Make in India.	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>IV</b>	<b>TRENDS AND PERFORMANCE IN SERVICE</b> Formal and informal sectors - Banking and insurance- trade in services - education – health – transport and communication- roadways- railways- waterways - airways – power – information technology enabled services – trends and directions- PDS- objectives, functioning, limitations; issues of buffer stocks, food security.	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>
<b>V</b>	<b>POLICIES AND PERFORMANCES IN SOCIAL SECTOR</b> Education and health: Basic problems and Government measures, Education for all: Right to Education (RTE) Act 2009- Skill Development- Aftereffects of demonetisation-	15	<b>CO1 to CO5</b>	<b>K1 to K5</b>

	Impact of Covid-19-Demographic Dividend- Universal Basic Income- Farm indebtedness and Agriculture policy.			
<b>Prescribed Books/Textbooks</b>				
14. Dutt R. and Sundharam K. P. M. Indian Economy. S. Chand & Company Ltd., New Delhi. 15. Indian Economy Datt and Sundharam, Gaurav Datt and Ashwani Mahajan, S Chand Publications, 7th Revised Edition 16. Indian Economy Since Independence, ed by Uma Kapila (2008-09), Academic Foundation, Revised Nineteenth Edition.				
<b>References</b>				
11. Kurien C.T (1992) The Economy: An Interpretative Introduction Sage Publications 12. Misra, S. K. and Puri V. K. Indian Economy — Its Development Experience. Himalaya Publishing House, Mumbai Reference Books. 13. Government of India (Current Year): Economic Survey, Ministry of Finance, New Delhi (Various Issues) 14. Uma Kapila (2018), Indian Economy: Performance and Policies, 2018-19 19th edition				
<b>Suggested Readings</b>				
11. Uma Kapila (editor) (2018), Indian Economy Since Independence: A Comprehensive and Critical Analysis of India's Economy, 1947-2018, Academic Foundation. 12. Jean Dreze and Amartya Sen, 2013. An Uncertain Glory: India and its Contradictions, Princeton University Press. • Reetika Khera, 2011, —India's Public Distribution System: Utilisation and Impact Journal of Development Studies. 13. Kaushik Basu and A. Maertens, eds, 2013, The New Oxford Companion to Economics, Oxford University Press.				
<b>Web Resources</b>				
10. <a href="https://hdr.undp.org/">https://hdr.undp.org/</a> 11. <a href="https://www.niti.gov.in/sites/default/files/2023-08/India-National-Multidimensional-Poverty-Index-2023.pdf">https://www.niti.gov.in/sites/default/files/2023-08/India-National-Multidimensional-Poverty-Index-2023.pdf</a> 12. <a href="https://www.niti.gov.in/">https://www.niti.gov.in/</a>				

### Course Articulation Matrix

Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8		PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	2.5	2.25								2.5	2				K1
CO 2	1.5	2.25	2.5								1.5	2.5			K2
CO 3	2	2	2			2	1.5	1.5			2.5	2	2.25		K3
CO 4	2	2	2.25	2	2.25		2	2			2.25	2		2	K4
CO 5	2	2	2	2	2.25	2	2.25	2.5			2.25		2.25	2	K5
Wt. Avg.	2	2.1	2.125	2	2.25	2	1.916	2		2.5	2.1	2.16	2.25	2	
													PO - 2.048/PS O – 2.202		



### Economics of Money and Banking

<b>Course Code</b>			
<b>Credits</b>		<b>5</b>	
<b>Hours / Cycle</b>		<b>6</b>	
<b>Category</b>		<b>Part</b>	<b>Core</b> <b>Theory</b>
<b>Semester</b>		<b>IV</b>	
<b>Year of Implementation</b>		<b>2024-2025</b>	
<b>Course Objectives</b>		Monetary and Financial Institution play a very crucial role in the working of an economy. A student is required to know the theory and working of money and financial markets. This paper is designed to provide the undergraduate students a basic knowledge in the operations of money and financial system in general and in India in particular.	
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Outline the evolution of money and the various exchange standards and helps in understanding the nature and role financial intermediaries in the market.	<b>PSO 1</b>	<b>K1</b>
<b>CO 2</b>	Through theoretical exploration students will be able to analyse and interpret the factors influencing people's decisions to hold money from the demand side, as well as identify and evaluate the determinants impacting money supply from the supply side thus help in developing analytical skills necessary to comprehend the complexities of monetary dynamics and its implications for economic stability and policy-making.	<b>PSO 3</b> <b>PSO 5</b>	<b>K2</b>
<b>CO 3</b>	Analyse the process of credit creation and the role played by RBI through various bank reforms in maintaining the banking structure in India.	<b>PSO 3</b>	<b>K3</b>
<b>CO 4</b>	Assess the Indian money and capital market and compare with the global institutions to review its progress.	<b>PSO 2</b>	<b>K4</b>
<b>CO 5</b>	Examine the objective, indicators and targets of the monetary policy in India and compare it with the world economies and devise effective measures to control money supply in India.	<b>PSO 2</b> <b>PSO 4</b>	<b>K5</b>

SYLLABUS				
UNIT	CONTENT	HOURS	COs	BLOOM'S TAXONOMY LEVEL
<b>I</b>	<p><b>Module I: Money and Exchange</b></p> <p>Money in Economic system: Evolution of money, Functions of money-Classification of money-Monetary System Criterion: Actual Money and Money of account, Commodity money and Representative money-Metallic and Paper money: Standard money and Token money, Representative Paper Money, Convertible Paper Money, Inconvertible paper money, Fiat Money, Credit Money-Acceptability Criterion: Legal Tender Money: Limited and unlimited Legal Tender Money-Non legal Tender or Optional Money: Money of Account and Money Proper- Types of Monetary Standards: The Gold Standard-Gold Currency Standard, Gold Bullion Standard, Gold Exchange Standard, Gold Reserve Standard, Gold Parity Standard –Bimetallic Standard-Gresham's Law – Paper Currency Standard-Digital money: Cryptocurrencies.</p> <p>Money and Financial System-Properties of financial assets-Selection Criteria-Role of Financial markets-Functions of financial intermediaries- Financial intermediation and capital accumulation.</p>	<b>10</b>	<b>CO 1 to CO 5</b>	<b>K1 to K5</b>
<b>II</b>	<p><b>Module II: Theories on Money.</b></p> <p><b>Demand for Money</b></p> <p>Classical and Keynesian View, Tobin's Portfolio Approach to Demand for money, Baumol's Inventory Approach to demand for money, Friedman's Quantity</p>	<b>20</b>	<b>CO 1 to CO 5</b>	<b>K1 to K5</b>

	<p>Theory of Money-A restatement-Patinkin's Real Balance effect</p> <p><b>Money Supply</b></p> <p>Standard System of Note Issue: Simple deposit system, Fixed Fiduciary System, Maximum Fiduciary System, Proportion Reserve System, Minimum Reserve System-Determinants of money supply-Money Multiplier-Measures of Money Supply in India.</p>			
<b>III</b>	<p><b>Module III: Banking System</b></p> <p><b>Commercial Banks-</b> Types of Scheduled Commercial Banks: Scheduled Public Sector Banks, Scheduled Private Sector Banks, Scheduled Small Finance Banks, Scheduled Payments Banks, Scheduled Regional Rural Banks, Scheduled Foreign Banks in India- Non- scheduled banks-Commercial banks: Functions and Operations, Credit creation, Structure of Balance sheet, Bank nationalisation in India, Reforms in the Indian System.</p> <p><b>Central Bank:</b> Role and functions-Reserve Bank of India: Functions and working- Development in Indian Banking.</p> <p>Cooperative Banks –Development Banks - Merchant Banking-Universal Banking-Payment Banks (Unified Payment Interface and Wallets)-Banking and Insurance.</p> <p>Banking reforms: Narasimham Committee-1991 and 1997.</p>	<b>15</b>	<b>CO 1 to CO 5</b>	<b>K1 to K5</b>
<b>IV</b>	<p><b>Module IV: MONEY AND CAPITAL MARKETS</b></p> <p>Money Market: Structure and Functions, Features of Indian Money market- Role of unorganised Money Markets in India.</p>	<b>15</b>	<b>CO 1 to CO 5</b>	<b>K1 to K5</b>

	<p>Capital Market: Primary and secondary markets-SEBI: functions.</p> <p>Foreign exchange Market-Types of exchange rate: Fixed, Flexible and managed floating exchange rate-Hedging Operations-Convertibility in Current and Capital Account-Tarapore Committee 1997.</p>			
<b>V</b>	<p><b>Module V: MONETARY POLICY IN INDIA</b></p> <p>Monetary policy: Objectives, Targets and Indicators, Instruments of credit control in India-Operating framework of monetary policy of India: Monetary Policy Committee, Inflation Targeting in India, Liquidity Adjustment Facility, Market Stabilisation Scheme- Transmission Mechanism- Monetary policy in closed and open economies.</p>	<b>15</b>	<b>CO 1 to CO 5</b>	<b>K1 to K5</b>

**Textbooks:**

- Goldfield and Chandler- The Economics of Money and Banking , Harper and Row, Chapters 1,2,3,4,5,6,7,8,13,17,18,20,21.
- K.P.M. Sundaram-Money, Banking, Trade and Finance, Sultan Chand, part-I, chapter 1,2,3,4,5,6,7
- M.C Vaish – Money, Banking , Trade and Finance, Wiley Eastern , Chapter 3,5,7,8,10, 22,23,27, 28,29.
- Michael Parkins-Modern Macro Economics Philip Allen Publishing Limited, Chapter 14,16.
- Handa, Jagdish- Monetary economics. Routledge, 2002.

**References:**

List of scheduled commercial banks

[https://m.rbi.org.in/scripts/bs\\_viewcontent.aspx?Id=3657](https://m.rbi.org.in/scripts/bs_viewcontent.aspx?Id=3657)

**Suggested Reading**

- Singh, R. (2017). *INDIAN ECONOMY EBOOK*. McGraw-Hill Education.

**Web Resources**

**Channels of monetary transmission:**

[https://www.nber.org/system/files/working\\_papers/w5464/w5464.pdf](https://www.nber.org/system/files/working_papers/w5464/w5464.pdf)

<https://mpira.ub.uni-muenchen.de/51136/>

## Effectiveness of monetary signals in India

<https://www.sciencedirect.com/science/article/abs/pii/S0161893807000890>

Course Articulation Matrix														
Course Outcome	Programme Outcomes								Programme Specific Outcomes					Cognitive Level
	PO 1	PO 2	PO3	PO4	PO 5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO5	
CO 1	3	2	-	-	-	-	-	-	3	-	-	-	-	K1
CO 2	-	3	3	3	3	-	3	3	-	-	3	-	3	K2
CO 3	-	2	3	-	-	-	-	-	-	-	3	-	-	K3
CO 4	3	3	-	-	-	-	-	-	-	2	-	-	-	K4
CO 5	3	3	2	-	-	2	2	2	-	2	-	3	-	K5
Wt. Avg.	3	2.6	2.7	3	3	2	2.5	2.5	3	2	3	3	3	
Overall Mapping of the Course												PO – 2.66/ PSO – 2.8		

## ENVIRONMENTAL ECONOMICS

<b>Course Code</b>			
<b>Credits</b>	<b>4</b>		
<b>Hours / Cycle</b>	<b>6</b>		
<b>Category</b>	<b>Part</b>	<b>Core</b>	<b>Theory / Practical</b>
<b>Semester</b>	<b>VI</b>		
<b>Year of Implementation</b>	<b>From the academic year 2024-2025 onwards (this is required as some of the courses may not be revised during particular revisions)</b>		
<b>Course Objectives</b>	<p><b>To be Listed in bullet points /Describe in 100 words</b></p> <p>The paper aims at introducing the subject at an undergraduate level. The objective is to help students address environmental issues using economic tools and envision sustainable development ideas, environmental quality degradation, and negative externalities owing to rapid industrialization and issues in hand. Climate change, deforestation, and unsustainable use of resources are issues that have been drawing attention to the development agenda. An understanding of the interactions between the environment and economics is essential to formulate strategies for sustainable development, and framing suitable policies to tackle environmental issues.</p> <p>A minor study on prevalent environmental issues and the application of economic principles to resolve the issues is a mandatory requirement for course completion.</p>		
<b>CO #</b>	<b>Course Outcome(s)</b>	<b>PSO Addressed</b>	<b>Bloom's Taxonomy Levels (K1 to K5)</b>
<b>On completing the course successfully, the student will be able to</b>			
<b>CO 1</b>	Identify basic concepts in environmental economics and environmental issues, interlinkages, and material principle. Envision sustainable development ideas environmental quality degradation and negative externalities owing to rapid industrialization, and appreciate the interlinkages of the environment and economy	<b>PSO 1 PSO 3 PSO 4</b>	<b>K2</b>
<b>CO 2</b>	Acquire knowledge of the concept of sustainable development goals and the various approaches to the same concept and its application in India.	<b>PSO 2 PSO 4</b>	<b>K3</b>
<b>CO 3</b>	Analyze various theories underlying the judicious use of natural resources and sustainable economic development.	<b>PSO 1 PSO 3 PSO 4</b>	<b>K4</b>
<b>CO 4</b>	Elaborate on the concept, and Resource Economics Theories and Ecological Economics. Understand the	<b>PSO 1 PSO 2</b>	<b>K5</b>

	Global environmental issues and policies and discuss methods to solve issues	<b>PSO 3</b> <b>PSO 5</b>	
<b>CO 5</b>	Perceive, Appraise, and establish the linkages between the various dimensions related to health and the Global Environment in the Development Process	<b>PSO 2</b> <b>PSO 4</b> <b>PSO 5</b>	<b>K6</b>

<b>SYLLABUS</b>				
<b>UNIT</b>	<b>CONTENT</b>	<b>HOURS</b>	<b>Cos</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>I</b>	<b>Environmental Economics: Environmental economics and environmental policy -</b> Environmental economics and ecological economics – Environmental Economics and resource economics – Important issues in environmental economics Environmental Problems and Policy solutions -The quality of the environment – environmental pollution – The cost of environmental protection-Remaining problems Social Choice: Environmental protection -Three examples – Individual preference regarding environmental protection – Social choice from individual values – Criticism of the utilitarian perspective – Three problems revisited – conclusions	<b>10</b>	<b>CO 1</b> <b>CO 4</b>	<b>KI, K2,</b>
<b>II</b>	<b>Efficiency and Markets -</b> What is efficiency – Efficiency and competitive markets – Supply , demand and efficiency – Social Cost – Benefit Analysis Market Failure: Public Bads and Externalities Public goods and bads – Optimal provision of public goods and bads – Pricing public goods and bad – Externalities Property Rights -Introduction – The pollution and the victim: Who should have rights – The Coase theorem – Problems of public bads and bargaining - Bargaining within groups – The policy significance of Coase theorem	<b>20</b>	<b>CO 1</b> <b>CO 2</b> <b>CO 3</b>	<b>K3, K3, K4</b>
<b>III</b>	<b>Pigovian Fees -</b> Pigovian fees: Single Polluter – Multiple polluters: The equi-marginal		<b>CO 3</b> <b>CO 4</b>	<b>K4, K5</b>

	principles – Fees versus subsidies – Imperfect competition Regulating Pollution Fees -Regulating Pollution – Basic issues in environmental regulations Emission fees and Marketable permits	20		
<b>IV</b>	<b>Environmental quality a public type good</b> – Valuing the environment in the absence of markets. Audits, Enforcements -Monitoring the environment. Open access resources- incentives in environmental regulations Risk and Uncertainty -What is risk? – Making choices about risk – Regulating risk	15	<b>CO 3</b> <b>CO 4</b>	<b>K4, K5</b>
<b>V</b>	<b>International and interregional issues</b> -Income effect and demand for environmental quality – zone of environmental pollution – Transboundary pollution – issues – green house effect- acid rain- climatic changes Environmental Regulations economy wide - Green national accounting Environmental summits – Rio de Jeniro – Doha round	10	<b>CO 2</b> <b>CO 5</b>	<b>K4, K5, K6</b>

#### **Prescribed Books/Textbooks**

1. Charles Kolstad , Environmental Economics, New York Oxford University press (2000)
2. Natural Resource and Environmental Economics , Roger Pearman , Yue Ma , David Pearce
3. M. Karpagam, Environmental Economics: A Textbook, Sterling Publishers Pvt. Ltd, (2019)
4. Nick Hanley , Jason F. Shogren , Ben White , Environmental Economics: In Theory and Practice Paperback – 10 November 2006
5. [www.unicef.org](http://www.unicef.org)
6. [www.env-econ.net](http://www.env-econ.net)
7. [www.coursera.org](http://www.coursera.org)

#### **References**

1. R. N. Bhattacharya (2006), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
2. Ulaganathan, Sankar (2006), Environmental Economics, Oxford University Press, New Delhi.
3. Hanley, Shogren and White (2004), Environmental Economics in Theory and Practice, McMillan India Limited, Delhi.
4. Singh & Shishodia (2010), Environmental Economics: Theory and Applications, Sage Publications, New Delhi



Course Articulation Matrix															
Course Outcomes	Programme Outcomes									Programme Specific Outcomes					Cognitive Level
	PO1	PO2	PO3	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	
CO 1	-	2	-	-	-	-	-	-		2		2	2		K 2
CO 2		2	2				2	2	2		2		2		K 3
CO 3		2	2				2	2	2	2		2	2		K4
CO 4		2	3	2	2	2		2	2	2	2	2		2	K 5
CO 5		2	3	2			2	2	2		2		2	2	K 6
Wt. Avg.		2	2	2	2	2	2	2		2	2	2	2	2	
Overall Mapping of the Course													PO-2 /PSO-2		