

**Maharaja's College, Ernakulam**  
**Undergraduate Programmes (MCE-UGP) Honours**

**Syllabus**  
(2024 admission onwards)

**Faculty:** Social Sciences  
**Board of Studies:** Economics  
**Programme:** B.A. Applied Economics  
**Specialisation:** Econometrics



**Maharaja's College, Ernakulam**  
(Government Autonomous College)  
Affiliated to Mahatma Gandhi University, Kottayam  
Park Avenue, Ernakulam, Kerala, India – 682011

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## Preface

It is with the approach of problem posing education (Freire, 1970. *Pedagogy of the Oppressed*), the learner attempts to critically engage with their own objective socio economic situation by drawing its connection with the larger social arrangements and economic structure prevailing in the society. The observation of Prof. Joan Robinson (1960) that the student engages in learning out of her humanitarian considerations and love for the nation reflects this aspect. In fact, such a process, where the learner critically and continuously interrogates the ever evolving economic relationships, is essential for reaching higher levels of theoretical understanding of empirical realities within the economy.

However, there is an uneasy consensus regarding the growing disconnect between what is learnt inside the classroom and what is taking place outside. The rift between grade or marks and the actual knowledge the learner assimilated reflects this crisis. The student might have learnt a sizable quantum of ideas often employing the method of rote learning but it has only little connection with the level of insight and understanding gained in the subject matter. This glaring disconnect needs to be addressed forthwith. It would be too naive to place the blame solely on the learner or the teacher for this educational shortcoming.

The dominant curriculum approach underlying undergraduate education in economics is the main cause of this issue. It initiates the discussion with narrating theoretical concepts and ideas in an abstract manner often with the introductory course on Microeconomics. Although, mainstream text books written by well-known economists may illustrate theoretical concepts by drawing connections to the real world phenomena, the focus remains on the passive transmission of syllabus content. The teacher often plays a detached role, merely acting as a medium for content transaction. Since the emphasis is on the transmission of content, there is no need to draw relationship between what is discussed in the classroom and what is taking place outside. Real life examples might be cited frequently, but they are often treated as mere illustrations or ‘manifestations’ of the abstract syllabus ideas.

However, what is required is turning upside down the learning trajectory; beginning by first appreciating the economic issues and problems encountered by the economy with the aim of explaining them rigorously leading to the formulation of theoretical concepts and ideas in an abstract language that can be *applied* to deal with the issues and problems from which the entire theorisation emanated. In fact, it is this curriculum perspective that primarily led to the design the programme in *Applied Economics*. Consequently, the programme offers specialisation in Econometrics by offering three courses is buttressed with two skill enhancement courses (SEC) one on spreadsheet applications and other on R programming with data visualisation. The specialisation courses, along with the two skill-based courses, will certainly strengthen the learner’s ability to succeed in an otherwise competitive job market.

In addition to that, given the quantitative nature of many of the variables in economics and the imperative to draw general statements keeping intact the ‘representativeness’ of the analytical findings, the curriculum extends due importance on the appropriate technical language required for a rigorous understanding of the economic phenomena.

Keeping this perspective in mind, the entire programme and its curricular details have been conceived. The various courses are designed to help the learners to navigate effortlessly through the rough waters of rigorous yet conscientious representation of economic phenomena, unavoidable in the highly demanding environment of an under graduate programme in Economics.

Santhosh T Varghese  
Head of the Department of Economics  
Maharajas College, Ernakulam



**Board of Studies in Economics**

<b>Sl. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Role</b>	<b>Constituency</b>
1	Shri Santhosh T. Varghese	Head of the Department	Chair Person	Head of the Dept of Economics
2	Smt. Mary Ushes James	Assistant Professor	Member	Internal Member
3	Dr. Pradeep Kumar B	Professor	Member	Internal Member
4	Dr. Nishanthi PU	Associate Professor	Member	Internal Member
5	Dr. Jayasree Paul	Associate Professor	Member	Internal Member
6	Dr. Anna Abraham Pachayil	Associate Professor	Member	Internal Member
7	Dr. Shiji K	Assistant Professor	Member	Internal Member
8	Dr Rekha V	Assistant Professor	Member	Internal Member
9	Shri Georgekutty Cherian	Assistant Professor	Member	Internal Member
10	Dr. Renuka S	Assistant Professor	Member	Internal Member
11	Prof. S. Muraleedharan	Visiting Professor, KN Raj Centre for Economics, Mahatma Gandhi University, Kottayam	External Member	External Member
12	Dr. Greeshma Manoj	Associate Professor, Dept of Economics, Christ University, Bengaluru	External Member	Alumni
13	Dr. KS Renjith	Senior Manager, Canara Bank Ltd	External Member	Industry
14	Prof. Vijayamohanan Pillai N	Honorary Fellow, Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram and Professor (Rtd), Centre for Development Studies, Thiruvananthapuram	External Member	Mahatma Gandhi University



## Curricular Structure

### (1) Three-year Undergraduate Degree – 6 Semesters

No.	Course Type	No. of Courses	Total Credits
1	Foundation: Ability Enhancement Courses (AEC)	4	12
2	Foundation: Multi-disciplinary Courses (MDC)	3	9
3	Foundation: Skill Enhancement Courses (SEC)	3	9
4	Foundation: Value Addition Courses (VAC)	3	9
5	Discipline Specific Courses: Major (DSC A/DSE)	17	68
6	Discipline Specific Courses: Minor (DSC B & C)	6	24
7	Internship		2
	<b>Total</b>	<b>36</b>	<b>133</b>

### (2) Four-year Undergraduate Degree (Honours) – 8 semesters and

### (3) Four-year Undergraduate Degree (Honours with Research) – 8 Semesters

No.	Course Type	No. of Courses	Total Credits
1	Foundation: Ability Enhancement Courses (AEC)	4	12
2	Foundation: Multi-disciplinary Courses (MDC)	3	9
3	Foundation: Skill Enhancement Courses (SEC)	3	9
4	Foundation: Value Addition Courses (VAC)	3	9
5	Discipline Specific Courses: Major (DSC A/DSE)	17	68
6	Discipline Specific Courses: Minor (DSC B & C)	6	24
7	Discipline Capstone Courses: Major (DCC/DCE)	8	32
8	Research Project		12/8
9	Internship		2
	<b>Total</b>	<b>44</b>	<b>177</b>



## MCE Programme Outcomes (POs)

PO1	Critical Thinking and Analytical Reasoning
PO2	Scientific Reasoning and Problem Solving
PO3	Multidisciplinary/Interdisciplinary/Trans disciplinary Approach
PO4	Communication Skills
PO5	Leadership Skills
PO6	Social Consciousness and Responsibility
PO7	Equity, Inclusiveness and Sustainability
PO8	Moral and Ethical Reasoning
PO9	Networking and Collaborating
PO10	Lifelong Learning



**Applied Economics - Programme Specific Outcome (PSOs)**

<b>No.</b>	<b>Programme Specific Outcome</b>
PSO 1	To theoretically understand and critically explain contemporary economic issues and the economic aspects of broader social problems evolving around us
PSO 2	To interpret and analyse the inter-connections and interdependence between various socio economic phenomena by unearthing the relevant economic relationships and institutional arrangements
PSO 3	To evaluate and report the social decision-making process, various government policies and programmes, and their developmental implications
PSO 4	To intervene in socio economic process with a mastery of disciplinary knowledge across competing theoretical strands, aiming to increase the welfare or expanding the freedoms enjoyed by humanity



## Evaluation Scheme

<b>Components</b>	<b>Marks (4 Credit)</b>	<b>Marks (3 Credit)</b>
Continuous Internal Assessment (CIA)	30	25
End Semester Examination	70	50
<b>Total</b>	<b>100</b>	<b>75</b>





## Applied Economics – Syllabus Index

Semester	Course Code	Course Title	Course Type	Credit	Hours per week	Lecture	Practicum
Semester 1	MCE1DSCECA100	Contemporary Issues of the Economy	DSC	4	5	3	2
	MCE1MDCECA100	Economics for Decision Making	MDC	3	4	2	2
Semester 2	MCE2DSCECA100	Applied Microeconomics I	DSC	4	5	3	2
	MCE2MDCECA100	Development Economics	MDC	3	4	2	2
Semester 3	MCE3DSCECA200	Applied Microeconomics II	DSC	4	5	3	2
	MCE3DSCECA201	Applied Macroeconomics I	DSC	4	4	4	
	MCE3DSCECA202	Econometric Analysis of Cross Section Data	DSC	4	5	3	2
	MCE3MDCECA200	Indian Economy	MDC	3	3	3	
	MCE3VACECA200	Sustainable Development	VAC	3	3	3	
	MCE3DSCECA203	Public Finance and Budget Analysis	DSC B	4	5	3	2
Semester 4	MCE4DSCECA200	Applied Macroeconomics II	DSC	4	5	3	2
	MCE4DSEECA200	Applied International Economics	DSE	4	5	3	2
	MCE4DSEECA201	Kerala Economy: Analytical Issues	DSE	4	4	4	
	MCE4SECECA200	Econometric Methods for Research	SEC	3	3	3	
	MCE4VACECA200	Political Economy of Development	VAC	3	3	3	
	MCE4DSCECA201	Kerala Economy: Economic History & Development Initiatives	DSC B	4	5	3	2
	MCE4INTECA200	Internship (Summer)	INT	2			
Semester 5	MCE5DSCECA300	Environmental and Ecological Economics	DSC	4	4	4	
	MCE5DSCECA301	Economics of Growth and Development	DSC	4	5	3	2
	MCE5DSCECA302	Public Finance and Public Choice	DSC	4	4	4	
	MCE5DSEECA300	Advanced Econometric Analysis	DSE	4	5	3	2
	MCE5DSEECA301	Game Theory	DSE	4	4	4	
	MCE5SECECA300	Data Analytics with Spreadsheet Applications	SEC	3	3	3	



Semester 6	MCE6DSCECA300	Indian Economy: Analytical Issues	DSC	4	5	3	2
	MCE6DSEECA300	Behavioural Economics and Social Preferences	DSE	4	5	3	2
	MCE6DSEECA301	General Equilibrium and Welfare Economics	DSE	4	4	4	
	MCE6DSEECA302	Research Methodology in Applied Economics	DSE	4	5	3	2
	MCE6SECECA300	R Programming for Economic Analysis	SEC	3	3	3	
	MCE6VACECA300	Heterodox Approach to Economic Theory	VAC	3	3	3	
Semester 7	MCE7DCCECA400	Advanced Microeconomics	DCC	4	5	3	2
	MCE7DCCECA401	Advanced Macroeconomics	DCC	4	4	4	
	MCE7DCCECA402	Time Series and Panel Data Econometrics	DCC	4	4	4	
	MCE7DCEECA400	Money and Banking	DCE	4	4	4	
	MCE7DCEECA401	Health Economics	DCE	4	4	4	
	MCE7DCEECA402	Indian Financial System and Financial Markets	DCE	4	4	4	
Semester 8	MCE8DCCECA400	International Macroeconomics	DCC	4	5	3	2
	MCE8DCCECA401	Indian Economy: Major Debates	DCC	4	5	3	2
	MCE8DCEECA400	Economics of Agriculture and Food Security	DCE	4	5	3	2
	MCE8DCEECA401	Industrial Economics: Theory and Applications	DCE	4	5	3	2
	MCE8DCEECA402	Introduction to Labour Economics	DCE	4	5	3	2
	MCE8PRJECA400	Project (Honours) / (Research)	PRJ	8 / 12			



**Syllabus - Semester I**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE1DSCECA100	Contemporary Issues of the Economy	DSC
MCE1MDCECA100	Economics for Decision Making	MDC



<b>Programme</b>	<b>BA Applied Economics</b>						
<b>Course Name</b>	<b>Contemporary Issues of the Economy</b>						
<b>Type of Course</b>	<b>DSC</b>						
<b>Course Code</b>	<b>MCE1DSCECA100</b>						
<b>Course Level</b>	<b>100-199</b>						
<b>Course Summary</b>	<p>As economic theories are constructed for the purpose of rigorously explaining the real world economic phenomena, the learner should first have a clear understanding about such economic issues. Keeping this objective, the course exposes the learner to the issues and problems faced by the economy with a view to generating curiosity to further explore the various topics in a theoretical manner.</p> <p>The economy is described in terms of various indicators and measures to appreciate its contours in an overall manner. The past and current state of economic growth and the distributional consequences of economic development with respect to gender, caste and space have been discussed to obtain a comprehensive picture of the problems of the economy.</p> <p>Such an understanding will certainly help the learner to construct an intuitive meaning out of the theoretical analysis to be attempted over the succeeding semesters of the programme as economic theories are nothing but rigorous explanations of empirical regularities.</p>						
<b>Semester</b>	<b>1</b>		<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>		<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Problem based Learning		<b>3</b>		<b>1</b>		<b>75</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	To understand the meaning of economy and economic interaction with society and environment		R & U	1 & 2
2	To apply and analyse the various indicators of economy to appraise the economic process taking in the real world		A & An	2 & 3
3	To evaluate and interpret the economic growth and its narratives in a historical perspective		E & C	3 & 4
4	To analyse and argue about the problems of development and debate about suggestions for formulating appropriate directions for its resolution		An, E & C	3 & 4
5	To analyse and evaluate the problems of distribution of fruits of economic growth and development over gender, caste and space with a view to develop perceptive insight.		An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>		<b>Economy and its Indicators</b>		

	1.1	Economy and Economic Interaction—Monetary and Non-Monetary Transactions—Circular Flow of Economic Activities—Economy-Environment Interaction—Economic Growth & Development: Amartya Sen and Development as Freedom	3	1, 4 & 5
	1.2	Leading Indicators at Global Level: Aggregate GDP, GDP of Different Countries (Dollar and PPP terms), HDI & Happiness Index and Population Sector wise Employment, Unemployment Rates, Inflation (CPI and GDP Deflator), Inequality—Gini Coefficient	4	2
	1.3	India: National Accounts Statistics—Components of GDP & its Trend (PFCE, GFCE, GFCF, CIS, Exports, Imports, Discrepancies)—GVA by Industry of Origin, Gross Domestic Saving and NSDP—Real versus Nominal Values—GDP Deflator—Indian Economy in Perspective—GDP in PPP terms	3	1, 4 & 5
	1.4	Kerala: Macro Economic Aggregates—GSDP and Growth Rates across Districts and Sectors—Demographic Profile—Indicators of Poverty—State Finances—Transfers through Finance Commission	4	2
	Practicum	(1) Compare the various indicators of development and macroeconomic aggregates from the databases of IBRD, Economic Survey and Economic Review (2) Compute the trend of components of Macroeconomic aggregates (3) Prepare and discuss the Economy-Environment Interaction model with the help of examples from your own locality (4) Prepare a report that narrates the significance of Amartya Sen's conception of development citing instances and references from own experience. (5) Compute GDP deflator	8	2
2	<b>Economic Growth: Past and Present</b>			
	2.1	Economic Growth: Across Countries and Regions—Growth Dispersion—Conquest and Settlement—International Trade and Capital Movements—Technological and Institutional Arrangements & Innovation—Role of Productivity	4	3
	2.2	GDP Per capita in the first Millennium—European Decline up to AD 1000—Western Development between AD 1000–1950—Recovery between AD 1000-1500—British Expansion and its Impact upon India	3	3
	2.3	India and the Growth Narratives—Break Points and Explanations—Competing Growth Estimations—Growth Rates across States	3	3, 4
	Practicum	(1) Discuss and interpret of various growth estimations and indicators of development across world regions and in India. (2) Debate on early capitalist development in Venice & Portugal	6	3
3	<b>Problems of Development: Unemployment, Poverty and Inequality</b>			
	3.1	Employment & Unemployment—Structural Composition—Types of Unemployment and Different Measures—Work and Labour Force Participation Rates—Estimation and Trend—Determinants and Causes of Employment & Unemployment	4	4, 5
	3.2	Poverty: Various Definitions and Estimations—Multidimensional Poverty Index—Poverty Alleviation Programmes	4	4, 5
	3.3	Inequality by Income and Wealth—Various Estimations and Explanations	3	4, 5
	Practicum	(1) Prepare the estimates of various variables of employment, unemployment from PLFS (2) Conduct a debate on the findings of household consumption expenditure survey of 2023 with respect to poverty and inequality (3) Debate on the aspects of inequality in various nations on the basis of country sheets of World Inequality Report 2022	8	4, 5



Problems of Distribution Over Gender, Caste and Space				
4	4.1	Gender Discrimination in India: Gender Development and Inequality Indices (UNDP) and Labour Market Outcomes—Gender Gaps in Labour Market—Goldin's U-Shaped Female Labour Supply Curve—Evolution of Gender Gaps: Explanation, Cross-Country Evidence—Grand Gender Convergence	4	4, 5
	4.2	Caste and Labour Market Outcomes—Social Statistics—Caste & Economic Discrimination:	3	4, 5
		Concept, Consequences, and Remedies—Reservation, Efficiency & Meritocracy—Hidden Language of Caste		
4.3	Spatial Inequality—NSDP Growth Rates across States & across districts in Kerala —Regional Inequality in Kerala; Developmental Expenditure and Regional Disparities	3	4, 5	
	<b>Practicum</b>	Discussion of Gender Development and Inequality Indices on the basis of UNDP report. Collate, compare and contrast the various inequality measures with respect to NSDP	8	4, 5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

Components of CIA
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

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<b>Programme</b>	<b>BA Applied Economics</b>						
<b>Course Name</b>	<b>Economics for Decision Making</b>						
<b>Type of Course</b>	<b>MDC</b>						
<b>Course Code</b>	<b>MCE1MDCECA100</b>						
<b>Course Level</b>	<b>100-199</b>						
<b>Course Summary</b>	The course attempts to explain the economic factors and its influences upon the decision making process in which individuals engage as a part of their daily activities. The course draws relevant ideas and concepts from theory of individual choice, consumer equilibrium, market structure and game theory.						
<b>Semester</b>	<b>1</b>		<b>Credits</b>			<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>		
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>2</b>	<b>0</b>	<b>1</b>			<b>60</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	To understand and apply the core economic principles and ideas of individual choice and economy wide interaction		R & U	1 & 2
2	To apply and analyse economic models and its underlying assumptions		A & An	2 & 3
3	To evaluate and interpret consumer's choice and equilibrium		E & C	3 & 4
4	To analyse, argue and formulate behavioural and game theoretic foundations of decision making		An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

**Content for Classroom Transactions (Units)**

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Principles of Individual Choice and Interaction</b>			
	<b>1.1</b>	Core Principles of Individual Choice: Scarcity & Choice, Opportunity Cost, Trade Off at the Margin and Response to Incentives—Critique: Scarcity of Resources or Materials	2	1 & 2
	<b>1.2</b>	Core Ideas of Interaction of Individual Choices: Gains from Trade, Movement towards Market Equilibrium, Efficient Utilisation of Resources, Competitive Markets and Efficiency—Market Failure and Govt Intervention	2	1 & 2
	<b>1.3</b>	Economy Wide Interaction: The Basic Ideas: Spending and Income, Mismatch Between Spending and Productive Capacity, Government Policies and Spending	2	1 & 2
	<b>1.4</b>	Economic Models and Assumptions: Production Possibility Frontier, Principle of Comparative Advantage and Circular-Flow Diagram—Positive Versus Normative Economics—Policy Prescriptions and Conflicting Conclusions	3	1 & 2
	<b>Practicum</b>	1) Prepare and discuss reports on core principles that can be observed in the economic interactions that involve individual choice 2) Identify and discuss the various assumptions that underlie various economic policy prescriptions	10	1, 2



<b>Consumer Equilibrium and Market Structures</b>				
2	2.1	Taste and Preferences of Consumer—Cardinal and Ordinal Utility—Indifference Curves—Assumptions—Rationality: Transitivity and Completeness—Maximization—Budget Constraint—Consumer's Choice and Equilibrium	2	1, 2 & 3
	2.2	Separation of the Substitution and Income Effects—Change in Quantity Demanded and Supplied—Elasticity—Inferior and Giffen Goods	2	1, 2 & 3
	2.3	Changes in Quantity Supplied and Supply—Equilibrium Price and Quantity in Competitive Markets—Limitations of Supply/Demand Analysis	2	1, 2 & 3
	2.4	Imperfect Competition—Monopoly, Equilibrium and Implications—Monopolistic Competition, Equilibrium and Implications	5	1, 2 & 3
	<b>Practicum</b>	(1) Prepare and discuss reports which narrate and explain the separation of price effect for different types of goods	10	
<b>Behavioural and Game Theoretic Foundations</b>				
3	3.1	Rational Choice Model and Behavioural Anomalies—Bounded Rationality—Heuristics—Behavioural and Procedurally Rational Model	2	1, 2 & 4
	3.2	Strategic Interaction—Game Theoretic Representation—Rules of the Game—Static and Dynamic Games—Cooperative and Non Cooperative Games—Prisoners Dilemma—Dominant Strategies—Nash Equilibrium and Implications	4	1, 2 & 4
	3.3	Multiple Nash Equilibria—Coordination Games—and Focal Point Equilibrium—Framing—Evolutionary Game Theory	4	1, 2 & 4
	<b>Practicum</b>	(1) Represent at least three cases of interactions that involve two players by using the game theoretic framework	10	1, 2 & 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50, Time: 1½ hour**

<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

- 1) Just, D. R. (2014). *Introduction to Behavioral Economics: Noneconomic Factors that Shape Economic Decisions*. Wiley.
- 2) Koutsoyiannis, A. (1996). *Modern Microeconomics* (2. ed.). MacMillan.
- 3) Krugman, P. R., & Wells, R. (2020). *Essentials of Economics* (Fifth edition). Worth Publishers.
- 4) Mankiw, N. G. (2022). *Principles of Economics*. Cengage Learning India Pvt. Ltd.
- 5) Salvatore, D. (2009). *Principles of Microeconomics* (5th ed., international version). Oxford University Press.



- 6) Samuelson, P. A., Nordhaus, W. D., Chaudhuri, S., & Sen, A. (2022). *Economics* (Twentieth Edition, special Indian edition). McGraw-Hill Education (India) Private Limited.
- 7) Webster, T. J. (2009). *Introduction to Game Theory in Business and Economics*. M.E. Sharpe.

**Additional References**

- 1) Cartwright, E. (2018). *Behavioral Economics* (3rd Edition). Routledge.
- 2) Osborne, M. J. (2017). *An Introduction to Game Theory* (South Asia edition). Oxford



**Syllabus - Semester II**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE2DSCECA100	Applied Microeconomics I	DSC
MCE2MDCECA100	Development Economics	MDC



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Applied Microeconomics I</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE2DSCECA100</b>					
<b>Course Level</b>	<b>100-199</b>					
<b>Course Summary</b>	This course intends to provide a critical understanding of introductory topics of microeconomics with an applied orientation. It will help the learner explore key concepts through the derivative language, developing numerical skills resulting in an insightful understanding of topics under discussion.					
<b>Semester</b>	<b>2</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
		<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>						

### COURSE OUTCOMES (CO)

CO No	Expected Course Outcome <i>Upon completion of this course, the students will be able to:</i>	Learning Domains *	PO No
1	explain utility functions and consumer preferences and analyse consumer equilibrium with numerical applications	U	1 & 2
2	apply indifference curve in various situations and analyse consumer behavior from ordinal approach	A & An	2, 3, 4
3	understand revealed preference theory and compare it with indifference curve analysis	A & An	2, 3, 4
4	examine the slope and elasticity of supply and demand functions and summarise various methods of measuring elasticity of demand.	U & An	1 & 2
5	appreciate theory of production, cost functions & theory of costs	U, E	2, 3, 4

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

Unit	Sub-Units	Details of the Units	Hours	CO Number
<b>Utility, Preferences &amp; Consumer Behaviour</b>				
<b>1</b>	<b>1.1</b>	Economic Models—Classification of Markets—Concept of an Industry—Criteria for the Classification of Firms into Industries	<b>3</b>	<b>1</b>
	<b>1.2</b>	Theory of Consumer Behaviour—Cardinal and Ordinal Approach: Assumptions, Equilibrium of the consumer and critique	<b>5</b>	<b>1 &amp; 2</b>
	<b>1.3</b>	Derivation of the demand curve using the indifference-curves approach— Price effect- Income effect and substitution effect— Hicks and Slutsky—Giffen Good and Inferior Good	<b>5</b>	<b>1 &amp; 2</b>
	<b>Practicum</b>	Discussion of utility, demand & supply functions and derivation of consumer equilibrium through substitution and Lagrangian methods	<b>10</b>	<b>1 &amp; 2</b>
<b>Consumer Behaviour and Applications</b>				
<b>2</b>	<b>2.1</b>	Revealed Preference Hypothesis: Assumptions, Strong versus weak Ordering, Derivation of the indifference curves and Critique	<b>3</b>	<b>3</b>



	2.2	The Consumers' Surplus: The Marshallian Approach—Applications of Indifference-Curves Analysis: The leisure-income trade-off	4	4
	2.3	Market Demand for Consumers' Goods: Derivation—Determinants of Demand—Elasticities of Demand: Various Concepts—Demand for the Product of a Firm	4	2 & 4
	<b>Practicum</b>	Discussion of the shape and sources of demand for the product of a firm and finding solutions to the numerical problems related to consumers' surplus and elasticity of demand	10	
	<b>Theory of Production</b>			
3	3.1	<b>Production Function for a Single Product—Method of Production —Isoquants: Properties, MRTS, Factor Intensity — Cobb-Douglas Function: Properties</b>	3	5
	3.2	<b>Laws of Production: Law of Variable Proportions—Laws of Returns to Scale: Homogeneity of Production Function, Graphical representation of Returns to Scale</b>	4	5
	3.3	Technological Progress and Production Function— Equilibrium of the Firm: Choice of Optimal Combination— <b>Maximisation of Output &amp; Minimisation of Cost</b>	4	5
	<b>Practicum</b>	Derivation of Cobb-Douglas utility function and derivation of: <b>optimal values of income and the prices</b> , expenditure function, compensated demand function & Discussion of Slutsky Equation, derivation of production equilibrium with cost constraint		
	<b>Cost Functions &amp; Theory of Costs</b>			
4	4.1	Derivation of Cost Functions from Production Functions—The Production Function of a Multiproduct Firm	2	8
	4.2	Basic Ideas— Traditional Theory of Cost: Short-Run Costs of the Traditional Theory, The Relationship between ATC and AVC, MC & ATC— Long-Run Costs of the Traditional Theory: The 'Envelope' Curve	4	5
	4.3	Modern Theory of Costs: Short-Run Costs in the Modern Microeconomic Theory, Long-Run Costs and L-Shaped Scale Curve— Economies of Scale: Real & Pecuniary	4	5
	<b>Practicum</b>	Derivation of: cost curves from a production function, production-possibility curve and relationship between the MC and AC  Prepare a report and discuss engineering cost curves, the empirical evidence on the shape of costs & criticisms and relevance of the shape of costs in decision-making		

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

Components of CIA
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References:**

1. Koutsoyiannis , A. (1975). Modern Microeconomics. London: Macmillan.
2. Perloff, J. M. (2014). Microeconomics with Calculus (3. ed., global ed). Addison-Wesley.

**Additional References:**

1. Mankiw, N. G. (2016). Principles of Microeconomics. Cengage Learning .
2. Mas-Colell, A., Whinston, M. D., & Green, J. R. (2012). *Microeconomic Theory*. Oxford University Press.
3. Nicholson, W., & Snyder, C. (2007). Intermediate Microeconomics and its Applications. Mason: Soth-Western Cengage Learning.
4. Pindyck, R. S., & Rubinfeld, D. L. (2018). Microeconomics. New Delhi: Pearson Education.
5. Varian, H. R. (1996). Intermediate Microeconomics, New York: W.W. Norton and Company.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Development Economics</b>					
<b>Type of Course</b>	<b>MDC</b>					
<b>Course Code</b>	<b>MCE2MDCECA100</b>					
<b>Course Level</b>	<b>100-199</b>					
<b>Course Summary</b>	This course offers the students a preliminary understanding of development economics. It contains the meaning and nature of economic growth and economic development. It helps the students to understand the issues pertaining to economic development.					
<b>Semester</b>	<b>2</b>			<b>Credits</b>		<b>3</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	<b>Total Hours</b>
	Authentic, Collaborative and Case-Based Learning	<b>2</b>		<b>1</b>		
<b>Pre-requisites, if any</b>	A basic understanding of the notion of growth and development, tools of Micro and Macroeconomics					

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	Get an in depth understanding about meaning and nature of economic growth and development.	R & U	1 & 2
2	Develop skills in understanding the measures of economic growth and development	R, A & An	3
3	Analyze the issues related to dualism and assists students in evaluating policies aiming at tackling dualism	E & A	4
4	Develop the ability to analyze the different stages in economic growth and development.	C & An	1
5	Understand, analyze and apply the role of different factors in the process of economic growth and development. Create documents of nations in the attainment of HDI	U, E & C	2

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Meaning and Nature of Growth and Development</b>			
	<b>1.1</b>	Meaning of Economic Growth and Development-Sustainable Development-Inclusive Growth and Inclusive Development-The perpetuation of underdevelopment-Pitfalls in Growth-Jobless Growth-Ruthless Growth-Voiceless Growth	<b>5</b>	<b>1</b>
	<b>1.2</b>	Measurement-Percapita Income as Index of Development-PQLI-HDI-Development Economics as a Subject-Academic Interest in Development	<b>5</b>	<b>2</b>
	<b>1.3</b>	The New International Economic Order-The Mutual Interdependence of the World Economy-The Development Gap	<b>3</b>	<b>3</b>
	<b>1.4</b>	Challenge of development economics-life-sustenance, self-esteem-Freedom-Entitlements-Capabilities	<b>3</b>	<b>4</b>
	<b>Practicum</b>	1.Discussion on the characteristics of Underdevelopment 2.Review of book 'Development as Freedom'	<b>5</b>	<b>3,4</b>





<b>The Characteristics of Underdevelopment and Structural Change</b>				
2	2.1	Obstacles to Development-Dualism-Social Dualism-Technical Dualism-Financial Dualism	5	1, 2
	2.2	The characteristics of Low Income Economies-The dominance of agriculture -Low level of capital accumulation-Rapid population growth-Exports dominated by primary commodities - Unemployment- Open Unemployment - Education-Nutrition and Health	7	3,5
	2.3	Measurement of Poverty-Absolute and Relative Poverty-Poverty Line-Human Poverty Index -Distribution of World Income-	4	1,2,3
	Practicum	1. Classroom Seminar on Obstacles to Development 2. Discussion on Poverty and Unemployment	5	1,2,3
<b>Theories of Economic Growth</b>				
3	3.1	Stages of development and structural change-Rostow's stages of growth-Industrialization and Growth	4	1,2
	3.2	Factors in Development-Land-The Role of Agriculture in Development-Barriers to Agriculture Development-Interdependence of Agriculture and Industry	5	3,4
	3.3	The Role of Capital in Development-Technical Progress-Human Capital and Demographic Dividend-Infrastructure Investment-Role of Government and Institutions	5	4,5
	Practicum	1. Panel Discussion on Factors in Development 2. Seminar on Role of Government	4	4,5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

1. Jones, C. I., Vollrath, D. (2023). *Introduction to Economic Growth*. United States: W. W. Norton, Incorporated.
2. Ray, Princeton University Press, 1998 D. (1998). *Development Economics*. New York: Princeton University Press.
3. Thirlwall, A. P. (2003). *Growth and Development: With Special Reference to Developing Economies*. New Delhi: Palgrave Macmillan.

**Additional References**

1. <https://hdr.undp.org/system/files/documents/hdr1996encompletenostats.pdf>
2. <https://doi.org/10.1016/j.ecolecon.2021.106996>
3. <https://www.jstor.org/stable/41132932>



**Syllabus - Semester III**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE3DSCECA200	Applied Microeconomics II	DSC
MCE3DSCECA201	Applied Macroeconomics I	DSC
MCE3DSCECA202	Econometric Analysis of Cross Section Data	DSC
MCE3MDCECA200	Indian Economy	MDC
MCE3VACECA200	Sustainable Development	VAC
MCE3DSCECA203	Public Finance and Budget Analysis	DSC B



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Applied Microeconomics II</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE3DSCECA200</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	This course intends to develop comprehensive understanding of equilibrium in various market structures and its implications by exploring numerical problems, with the goal of applying theoretical ideas to real-world market phenomena.					
<b>Semester</b>	<b>3</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
		<b>3</b>		<b>1</b>		<b>75</b>

### COURSE OUTCOMES (CO)

CO No	Expected Course Outcome <i>Upon completion of this course, the students will be able to:</i>	Learning Domains *	PO No
1	appreciate the importance and interpret the crucial economic implications of perfect competition	A, E & C	1, 2 & 4
2	evaluate the economic situation and creates monopoly and the consequences of monopoly behaviour of firms	A, E & C	1, 2 & 4
3	comprehend critically the equilibrium and implications of monopolistic competition	U, A & E	2, 3 & 4
4	appraise the economic aspects of non-collusive & collusive behaviour of firms under oligopolistic market structure	U, A & E	2, 3 & 4

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

Unit	Sub-Units	Details of the Units	Hours	CO Number
<b>1</b>	<b>Perfect Competition</b>			
	<b>1.1</b>	Assumptions & Implications—Short-Run Equilibrium—Equilibrium of the Firm	<b>3</b>	<b>1</b>
	<b>1.2</b>	Supply Curve of the Firm and the Industry—Short-Run Equilibrium of the Industry—Long-Run Equilibrium—Optimal Resource Allocation	<b>4</b>	<b>1</b>
	<b>1.3</b>	Dynamic Changes and Industry Equilibrium: Shift in the Market Demand in Constant, Increasing & Decreasing Cost Industries, Shift in Cost and Factor Price Changes, Effects of Tax	<b>5</b>	<b>1</b>
	<b>Practicum</b>	Derivation of the equilibrium of the firm and discussion of numerical problems	<b>6</b>	
<b>2</b>	<b>Monopoly</b>			
	<b>2.1</b>	Definition—Demand and Revenue—Costs—Equilibrium of Monopolist: Short-Run & Long-run	<b>4</b>	<b>2</b>
	<b>2.2</b>	Predictions of Monopoly Model in Dynamic Situations: Shift in Market Demand, Increase in Costs & Imposition of Tax—Comparison of Pure Competition and Monopoly	<b>4</b>	<b>2</b>
	<b>2.3</b>	Price Discrimination: Necessary Conditions, Degrees of Price Discrimination & Price Elasticity of Demand—Price Discrimination and the Existence of the Industry	<b>4</b>	<b>2</b>



	<b>Practicum</b>	Derivation and discussion of equilibrium of the monopolist & discussion with numerical examples & equilibrium position of the price-discriminating monopolist with numerical examples. Discussion of effects of government-regulated monopoly	8	
<b>3</b>	<b>Monopolistic Competition</b>			
	<b>3.1</b>	Assumptions—Product Differentiation and Demand Curve— Concept of Industry and Product Group	3	3
	<b>3.2</b>	Equilibrium of the Firm: Equilibrium with New Firms Entering the Industry, Equilibrium with Price Competition & Price Competition and Free Entry	4	3
	<b>3.3</b>	Critique of Chamberlin's Model—Comparison with Pure Competition	3	3
	<b>Practicum</b>	Prepare report and discuss the practices of firms that allow them to profit in monopolistic competition	8	
<b>4</b>	<b>Non Collusive &amp; Collusive Oligopoly</b>			
	<b>4.1</b>	Duopoly Models: Cournot, Bertrand—Chamberlin's Oligopoly Model	4	4
	<b>4.2</b>	Kinked-Demand Model—Stackelberg's Duopoly Model	2	4
	<b>4.3</b>	Cartels: Joint Profit Maximisation—Market-Sharing Cartels— Price Leadership: Low-Cost Price Leader, Dominant-Firm Price Leader— Critique of Traditional Price Leadership Models— Barometric Price Leadership	5	4
	<b>Practicum</b>	Derivation of the reaction curves of Cournot's model with numerical examples, numerical problems with Cournot, Bertrand & Stackelberg equilibrium	8	

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References:**

1. Koutsoyiannis, A. (1975). *Modern Microeconomics*. London: Macmillan.
2. Perloff, J. M. (2014). *Microeconomics with Calculus* (3. ed., global ed). Addison-Wesley.

**Additional References:**

1. Mankiw, N. G. (2016). *Principles of Microeconomics*. Cengage Learning .
2. Mas-Colell, A., Whinston, M. D., & Green, J. R. (2012). *Microeconomic Theory*. Oxford University Press.
3. Nicholson, W., & Snyder, C. (2007). *Intermediate Microeconomics and its Applications*. Mason: Soth-Western Cengage Learning.
4. Pindyck, R. S., & Rubinfeld, D. L. (2018). *Microeconomics*. New Delhi: Pearson Education.
5. Varian, H. R. (1996). *Intermediate Microeconomics*, New York: W.W. Norton and Company.



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Applied Macroeconomics I</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE3DSCECA201</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	The course provides theoretical foundation to various economic theories and key macroeconomic variables. It enables the learner to appreciate the classical macroeconomic system and Keynesian revolution, with a view to analyzing their implications upon the economy with clarity of thought and perception.					
<b>Semester</b>	<b>3</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	<b>4</b>				<b>60</b>
<b>Pre-requisites, if any</b>						
<b>COURSE OUTCOMES (CO)</b>						
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>				<b>Learning Domains *</b>	<b>PSO No</b>
1	comprehend critically the central questions in macroeconomics, the classical macroeconomic model and its policy implications				U & E	1, 2
2	appreciate the historical background of the emergence of Keynesian revolution, its major tenants and interpret the policy implications				U, E & C	1, 2
3	develop a perspective and formal understanding of IS-LM framework by discussing the historical backdrop				U & E	2, 3, 4
4	discuss the policy effects and interpret its broader implications by leveraging the IS-LM framework				U, E & C	2, 3, 4
* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)						

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Introduction to Macroeconomics</b>				
<b>1</b>	<b>1.1</b>	Central Questions in Macroeconomics - Output, Unemployment, Inflation— Measures and Components of GDP: Review—Basic National Income Accounting Identities	<b>3</b>	<b>1</b>
	<b>1.2</b>	Measures of Cyclical Variation in Output—Potential Output	<b>2</b>	<b>1</b>
<b>Classical Macroeconomics</b>				
<b>2</b>	<b>2.1</b>	Classical Macroeconomics: Output and Employment—The Classical Revolution—Equilibrium Output and Employment	<b>7</b>	<b>1</b>
	<b>2.2</b>	Classical Macroeconomics: Money, Prices, and Interest—Quantity Theory of Money—Equation of Exchange –The Cambridge Approach	<b>7</b>	<b>1</b>
	<b>2.3</b>	Classical Theory of the Interest Rate—Says Law— Policy Implications of the Classical Equilibrium Model	<b>5</b>	<b>1</b>
<b>3</b>	<b>Keynesian System</b>			



	3.1	The Keynesian System: Historical Background—Role of Aggregate Demand & its Components—The Problem of Unemployment—Simple Keynesian Model— Multiplier and Changes in Income	8	2
	3.2	The Simple Keynesian Model: Two Sector, Three Sector and Four Sector Models—Keynesian Fiscal Stabilization Policy	10	2
<b>IS-LM Model</b>				
4	4.1	The Keynesian System: Money, Interest, and Income—Money in the Keynesian System—Demand for money – Liquidity trap – Equilibrium rate of interest and Interest Rate Indeterminacy	8	3, 4
	4.2	IS-LM Framework—Historical Backdrop—IS-LM Model— Formal Derivation of IS-LM Model (Assignment)—Policy Effects	10	3, 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>	
Class Tests, Self and Peer Assessments, Open Book Tests,	
Assignments, Case study Report	
Seminar/Viva	
Project/Practicum/Quiz/Book Review/Fieldwork etc.	

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**Reference**

1. Dornbusch, R., Fischer, S., & Startz, R. (2018). *Macroeconomics* (13 ed.). New York: McGraw-Hill.
2. Froyen, R. T. (2013). *Macroeconomics* (10 ed.). Pearson Education.
3. Gordon, R. J. (2012). *Macroeconomics* (12 ed.). Pearson.
4. Hansen, A. H. (1953). *A Guide to Keynes* (International Student Edition). McGraw-Hill Book Company Inc.
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6. Mankiw, N. G. (2013). *Macroeconomics* (8 ed.). Worth Publishers.

**Additional Reading**

1. Blanchard, O. (2017). *Macroeconomics* (7 ed.). Pearson.
2. Hubbard, R. G., & O'Brien, A. (2013). *Macroeconomics* (4 ed.). Pearson.
3. Levačić, R., & Rebmann, A. (1976). *Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies* (2 ed.). Macmillan.
4. Mishkin, F. S. (2012). *Macroeconomics: Policy and Practice*. Pearson.
5. Shapiro, E. (1978). *Macroeconomic Analysis* (4 ed.). Harcourt Brace Jovanovich.
6. Snowdon, B., & Vane, H. R. (2005). *Modern Macroeconomics: Its Origins, Development and Current State*. Edward Elgar.



<b>Programme</b>	<b>Applied Economics</b>			
<b>Course Name</b>	<b>Econometric Analysis of Cross Section Data</b>			
<b>Type of Course</b>	<b>DSC</b>			
<b>Course Code</b>	<b>MCE3DSCECA202</b>			
<b>Course Level</b>	<b>200-299</b>			
<b>Course Summary</b>	This course deals with the theoretical and application of econometric techniques that we generally use when we deal with the cross-sectional data set. The course progresses from the basic understanding of econometrics to its extensions and multiple regression analysis, issues in modelling and use of dummy variables in analyses. The course enables learners to get an in-depth understanding of regression analysis that imparts skill for conducting basic empirical research			
<b>Semester</b>	<b>3</b>	<b>Credits</b>		<b>4</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Practicum</b>	<b>Others</b>
	Scaffold Learning, Hands-on Activities, Reflective Learning and Problem based Learning	<b>3</b>	<b>1</b>	
				<b>Total Hours</b>
				<b>75</b>

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	appreciate the basic concepts to represent the theoretical relationships in economics in econometric	U, A, An & E	1 & 2
2	Estimate, evaluate and interpret the simple and multiple linear regression models using real world data	An, E & C	2, 3 & 4
3	Estimate, evaluate and interpret dummy variable regression models using real world data	An, E & C	3 & 4
4	explore the open source econometric software packages such as Gretl, R for econometric modelling	U & A	2 & 3
5	explain and intuitively interpret the econometric results in theoretical and plain language.	A, An, E & C	2, 3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Introduction and Single Equation Regression Models</b>			
	<b>1.1</b>	Meaning, Methodology and Scope of Econometrics-Variables: Scales of Measurement, Data types. Modern interpretation of Regression—PRF—Linearity—Stochastic Specification of PRF—Significance of Disturbance Term—SRF.	3	1, 4 & 5
	<b>1.2</b>	Problem of Estimation-CLRM—Method of OLS—Derivation of OLS Estimators—Deviation Form—Properties, Assumptions & Gauss-Markov Theore	3	1, 4 & 5
	<b>1.3</b>	Goodness of fit-R square—Estimation and testing of hypothesis—Standard error—Interpretation.	4	1, 4 & 5



	<b>Practicum</b>	Estimate and interpret two viable econometric model with Gretl or R	6	
2	<b>Issues in Econometric Modelling</b>			
	2.1	Issues while relaxing the CLRM assumptions- Nature, Consequences, Tests, and Remedial Measures to the Problems of Heteroscedasticity, Auto-correlation and Multicollinearity (Multiple Regression)—Estimation of Econometric Models with Gretl or R	4	2, 4 & 5
	2.2	Model Specification and Diagnostic Testing— Specification and Misspecification Errors— Consequences, Methods of Detection and Tests	4	2, 4 & 5
	2.3	Errors of Measurement—Nested versus Non-Nested Models—Tests of Non-Nested Hypotheses—Model Selection Criteria.	4	2, 4 & 5
	<b>Practicum</b>	Evaluate and interpret the goodness and model adequacy of two variable econometric model with Gretl or R	8	
3	<b>Multiple Regression and Extensions to Two-Variable Regression Models</b>			
	3.1	Multiple Regression-Matrix Approach—General k variable Model—OLS Estimators and Gauss-Markov Theorem (Matrix Notation)	4	2, 4 & 5
	3.2	Testing the Equality of Two Regression Coefficients— Restricted Least Squares—Testing Linear Equality Restrictions—Parameter Stability & Chow Test	4	2, 4 & 5
	3.3	Regression through origin-Different Functional Forms—Log-Linear, Semi log, Double Log, Reciprocal and Log Reciprocal Models—Choice of Functional Forms	4	2, 4 & 5
	<b>Practicum</b>	Estimate, evaluate and interpret the multivariate econometric model and other extensions with Gretl or R	8	
4	<b>Dummy Variable Regression Models</b>			
	4.1	Qualitative Explanatory Variables-Dummy variables Regression -Additive and Multiplicative Models — Dummy variable Trap -Interpretation	3	3, 4 & 5
	4.2	Dummy Variables Alternative to Chow Test, Seasonal Analysis, Piece-wise linear regression. Estimating the econometric models with Gretl or R	4	3, 4 & 5
	4.3	Qualitative Explanatory Variables-Dummy variables Regression -Additive and Multiplicative Models — Dummy variable Trap -Interpretation	4	3, 4 & 5
	<b>Practicum</b>	Estimate, evaluate and interpret th dummy variable regression models with Gretl or R	8	

### Mode of Assessment

#### A. Continuous Internal Assessment (CIA) - 30 Marks

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.





**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References:**

1. Gujarati, D. N. (2004). *Basic Econometrics*. McGrawHill.
2. Wooldridge, J. M. (2020). *Introductory Econometrics: A Modern Approach*. Cengage Learning; Askews and Holts.
3. James H. Stock, M. W. (2020). *Introduction to Econometrics*. Pearson; ProQuest Ebook Central.
4. Hansen, B. E. (2014). *Introduction to Econometrics*. University of Wisconsin.
5. Heiss, F. (2016). *Using R for Introductory Econometrics*. Florian Heiss.
6. Kennedy, P. (2008). *A Guide to Econometrics*. Blackwell Publishing.
7. Joshua D. Angrist, J. S. (2009). *Mostly Harmless Econometrics-An Empiricist's Companion*. Princeton University Press.
8. Gujarati, D. (2011). *Econometrics by Example*. Palgrave-McMillan.

**Additional References:**

- 1) Bailey, M. (2016). *Real Econometrics: The Right Tools to Answer Important Questions*. Oxford University Press.
- 2) Baltagi, B. H. (2011). *Econometrics*. Springer.
- 3) Bhaumik, S. K. (2015). *Principles of Econometrics: A Modern Approach Using EViews*. Oxford University Press.
- 4) Dougherty, C. (2007). *Introduction to Econometrics*. Oxford University Press.
- 5) Kmenta, J. (1976). *Elements of Econometrics*. Macmillan, New York.
- 6) Maddala, G. S. (2002). *Introduction to Econometrics*. John Wiley & Sons.
- 7) Mukherjee, C., White, H., & Wuyts, M. (1998). *Econometrics and Data Analysis for Developing Countries*. Routledge New York.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Indian Economy</b>					
<b>Type of Course</b>	<b>MDC</b>					
<b>Course Code</b>	<b>MCE3MDCECA200</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	The main objective of the course is to enlighten the learner to understand and analyse the Indian economic problems with a view appreciate the growth, structural changes and policy changes that took place in the economy from a historical perspective.					
<b>Semester</b>	<b>3</b>	<b>Credits</b>			<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>3</b>				<b>45</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	Understand and analyse the significance of economic planning and role of the state		R, U & An	1 & 2
2	Appreciate and interpret the structural transformation of the economy since 1947		R, U & E	2 & 3
3	Examine the sectoral performance of the economy and discuss the achievements of economic growth		U & E	2, 3 & 4
4	Evaluate and assess the progress made with respect to the major development issues such as unemployment, poverty and inequality		An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Economic Planning and Role of the State</b>			
	<b>1.1</b>	Colonialism and Under Development in India: British Versus Indian Views of Development—The Problem of Development—Bombay Plan	5	1 & 2
	<b>1.2</b>	Overview of Five Year Plans—Strategy of Second Five Year Plan and its Achievements— Growth Performance upto 1990—Growth Performance Since 1991	5	1 & 2
	<b>1.3</b>	The Problem of Industrial Stagnation—The First Wave of Liberalisation during 1980s—The New Economic Policy of 1991—Role of the State—Implications and Consequences— Thirty Years of Economic Reforms	5	1 & 2
<b>2</b>	<b>Structural Transformation of the Economy</b>			
	<b>2.1</b>	Agriculture Sector: Production and Productivity of Major Crops—Public and Private Investment in Agriculture—	5	2 & 3



		Profitability and the Issue of Remunerative Prices— Globalisation in Agriculture: Issues and Challenges		
	2.2	Industrial Sector—Role of Public Sector in Industrial Development—Liberalisation and Disinvestment during 1990s— Recent Policy Initiatives: Make in India, Role of MSMEs	5	2 & 3
	2.3	Service Sector: Growth and Performance of Service Sector—Major Sub Sectors—Employment Generation: The Problem of Jobless Growth—Significance of Informal Sector	5	2 & 3
3	<b>Major Development Issues: Unemployment, Poverty and Inequality</b>			
	3.1	Employment & Unemployment—Types of Unemployment and Different Measures—Work and Labour Force Participation Rates	5	2 & 3
	3.2	Poverty: Various Definitions and Estimations— Multidimensional Poverty Index—Poverty Alleviation Programmes	5	2 & 3
	3.3	Inequality by Income and Wealth—Various Estimations and Explanations	5	2 & 3

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

- 1) Basu, K., & Maertens, A. (Eds.). (2012). *The New Oxford Companion to Economics in India*. Oxford University Press.
- 2) Chandra, B. (1991). Colonial India: British versus Indian Views of Development. *Review (Fernand Braudel Center)*, 14(1), 81–167.
- 3) Goyal, A. (Ed.). (2019). *A Concise Handbook of the Indian Economy in the 21st Century* (Second edition). Oxford University Press.
- 4) Kapila, U. (2022). *Indian Economy: Performance and Policies* (23rd edition, 2022–23). AF Press.

**Additional References**

- 1) Ahluwalia, M. S. (2016). The 1991 Reforms: How Home-grown Were They? *Economic and Political Weekly*, 51(29), 39–46.
- 2) Ahluwalia, I. J., Little, I. M. D., & Manmohan Singh. (2012). *India's Economic Reforms and Development: Essays for Manmohan Singh* (2nd ed). Oxford University Press.
- 3) Chakravarty, S. (1987). *Development Planning: The Indian Experience*. Clarendon Press; Oxford University Press.
- 4) Patnaik, P. (2016). Economic Liberalisation and the Working Poor. *Economic and Political Weekly*, 51(29), 47–51.



<b>Programme</b>	<b>BA Applied Economics</b>				
<b>Course Name</b>	<b>Sustainable Development</b>				
<b>Type of Course</b>	<b>VAC</b>				
<b>Course Code</b>	<b>MCE3VACECA200</b>				
<b>Course Level</b>	<b>200-299</b>				
<b>Course Summary</b>	This course provides a comprehensive exploration of sustainable development, focusing on the historical context, key concepts, and the integration of environmental, social, and economic sustainability. Students will examine global challenges such as climate change, resource depletion, and social inequality, while also learning about innovative solutions and strategies to build a sustainable future. The course emphasizes practical applications and critical thinking, preparing students to contribute effectively to global sustainability efforts.				
<b>Semester</b>	<b>3</b>	<b>Credits</b>		<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>
	Authentic, Collaborative, and Case-based learning	<b>3</b>			

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	Identify and explain the key concepts and historical context of sustainable development.		R, U	1
2	Analyse the interrelationship between environmental, social, and economic sustainability in global commons contexts.		An	2
3	Evaluate the impacts of climate change and resource depletion on ecosystems and propose mitigation strategies.		E	3
4	Assess the role of education, technology, and policy in advancing sustainable development goals, with a focus on social justice and equity.		E	4
5	Apply sustainable business models and practices that align with the principles of the green and circular economy.		A	3,4
6	Design and propose innovative solutions to sustainability challenges within communities, considering ecological limits and social equity.		C	3,4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Foundations of Sustainable Development</b>				
<b>1</b>	<b>1.1</b>	Defining Sustainable Development: Historical context, key concepts, nature, and scope-Major Components of Sustainable Development: The three pillars—environmental, social, and economic sustainability-Approaches to Sustainable Development: Different perspectives and strategies	5	1, 2,4
	<b>1.2</b>	Principles and features of Sustainable Development-Sustainable Development Progress: SDGs and Agenda 2030, indicators, and evaluation	5	1,2,4



	1.3	Resource Depletion: Water, energy and materials management-Sustainable Consumption and Production Practices	5	1,3,4
2	<b>Social Dimensions of Sustainable Development</b>			
	2.1	Role of Education in Sustainable Development-Relationship between Sustainable Development and Food Security-Role of Green and Converging Technologies in Health, Sanitation, and Food Security	5	2,4
	2.2	Green Economy and Circular Economy Concepts: Transitioning to sustainable economic systems-Sustainable Business Models and Practices: Corporate responsibility and sustainability-Measuring	5	2, 4, 5
	2.3	Poverty, Inequality, and Human Development-Social Justice and Rights for All: Gender, indigeneity, and global equity-Sustainable Cities and Communities: Urban planning and development-Public Health and Well-being in a Sustainable Future	5	2,4,5
3	<b>Climate Change and Environmental Sustainability</b>			
	3.1	Climate Change: Science, impacts, and mitigation strategies-Development, Sustainability, and Climate Change-Interrelationship, differentiated responsibilities, global commons, international conventions	5	2,3,5
	3.2	Biodiversity Loss and Ecosystem Services-The Role of Business and Innovation in Sustainability Solutions	5	2,3,5, 6
	3.3	Individual and Collective Action: Empowering change	5	2,3,5,6

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

1. Barbier, E. B., & Burgess, J. C. (2017). *The economics of the green economy: Global perspectives*. Routledge.
2. Corona, B., Shen, L., Reike, D., Carreon, J. R., & Worrell, E. (2019). Towards sustainable development through the circular economy – A review and critical assessment on current circularity metrics. Retrieved from <https://dspace.library.uu.nl/handle/1874/385098>
3. Daly, H. E. (1996). *Beyond growth: The economics of sustainable development*. Beacon Press.
4. Ellen MacArthur Foundation. (2012). *Towards the circular economy: Economic and business rationale for an accelerated transition*.
5. Elliott, J. (2012). *An introduction to sustainable development* (4th ed.). Routledge.



6. Hopwood, B., Mellor, M., & O'Brien, G. (2005). Sustainable development: Mapping different approaches. *Sustainable Development*, 13(1), 38-52. <https://doi.org/10.1002/sd.244>
7. Kates, R. W., Parris, T. M., & Leiserowitz, A. A. (2005). What is sustainable development? Goals, indicators, values, and practice. *Environment: Science and Policy for Sustainable Development*, 47(3), 8-21. <https://doi.org/10.1080/00139157.2005.10524444>
8. Sengupta, R. (2001). *Ecology and economics: An approach to sustainable development*. Oxford University Press.

#### Additional References

1. IPCC. (2014). Climate change 2014: Synthesis report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC.
2. NITI Aayog. (2020). Decade of Action Taking SDGs from Global to Local.
3. Ostrom, E. "A General Framework for Analyzing Sustainability of Social-Ecological Systems." *Science*, vol. 325, no. 5939, 2009, pp. 419-422.
4. Sachs, J. D. (2015). *The age of sustainable development*. Columbia University Press.
5. Sen, A. (1999). *Development as Freedom*. Delhi, India: Oxford University Press.
6. United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations
7. WCED. (1987). *Our common future (The Brundtland Report)*. Oxford University Press.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Public Finance and Budget Analysis</b>					
<b>Type of Course</b>	<b>DSC-B</b>					
<b>Course Code</b>	<b>MCE3DSCECA203</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	The objective of the course is to critically understand the role of government and public sector in a mixed economy by exploring the economic effects of policies and programmes of public expenditure and resource mobilization. It also explores the problem of aggregation of individual preferences from the view point public choice theory. The course focuses upon the issues of fiscal federalism and the economic implications of budget of governments at union and state levels.					
<b>Semester</b>	<b>3</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	<b>75</b>
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>3</b>		<b>1</b>		

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	understand and appreciate the various aspects of public finance and the economic implications of public goods	R, U & E	1 & 2
2	apply and analyse the relevant topics of public choice and fiscal politics	A & An	2 & 3
3	evaluate and interpret the various measures of fiscal policy and problems and challenges connected with the topic of fiscal federalism	R, U, E & C	3 & 4
4	analyse the impact of and argue the implications, and macro-economic consequences of budget proposals	An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Public Finance and Public Goods</b>			
	<b>1.1</b>	Private Finance and Public Finance—Rationale for Government: Musgrave's Multiple Theory of Public Households— Market Failure and Externalities: Problems and Solutions	5	1
	<b>1.2</b>	Private & Public Goods— Optimal Provision of Public Goods—Private Provision of Public Goods and Public Provision of Public Goods	4	1
	<b>1.3</b>	Merit Wants & Merit Goods—Reasons and Implications of Government Failure— Corruption	3	1
	<b>Practicum</b>	1) Prepare a list of different instances of externalities from your locality and suggest appropriate remedies	8	1



		2) Initiate a discussion and prepare a report that narrates the different instances of failure of government mechanisms with the theoretical framework of government failure		
<b>Public Choice and Fiscal Politics</b>				
2	2.1	Mechanisms for Aggregating Individual Preferences — Direct Democracy: Voting Rules—Majority Rule—Median Voter Theorem—Voting Paradox: Arrow's Impossibility Theorem	5	1, 2
	2.2	Fiscal Choices—Alternative Voting Rules—Role of Strategy—Representative Democracy: The Role of Politicians	4	1, 2
	2.3	The Leviathan Hypothesis: Voting Bias—Campaign Financing—Political Business Cycle	4	1, 2
	<b>Practicum</b>	1) Gather and discuss evidence on the Median Voter Model for Representative Democracy on the basis of recent elections results	8	1, 2
<b>Fiscal Policy and Fiscal Federalism</b>				
3	3.1	Theories of Public Expenditure: Wagner, Wiseman-Peacock Hypothesis—Public expenditure in India—Sources of Public Revenue: Tax & Non-Tax Sources—Theories of Taxation: Benefit Taxation and Ability to Pay—Horizontal & Vertical Equity	5	1, 3
	3.2	Various concepts of Deficit—Public Debt—Role of Fiscal Policy—FRBM Legislation—The Idea of Fiscal Consolidation: Consequences and Implications	3	1, 3
	3.3	Fiscal Federalism: Economic Rationale—Constitutional Provisions— Finance Commission—Criteria for Devolution—Recommendations of the last Finance commission—Critique—State finance commission	3	1, 3
	<b>Practicum</b>	1) Prepare and discuss the recent debates between union government and different state governments with respect to the devolution 2) Discuss and present a report on the recent cases before supreme court with respect to the constitutional provisions of public debt of state governments and FRBM restrictions	8	1, 3
<b>Budget Analysis</b>				
4	4.1	Budget of Union and State Governments— Constitutional Provisions—Annual Financial Statement—Budget at a Glance	3	1, 3 & 4
	4.2	Structure and Trend of different components of Revenue Receipts, Expenditure Under Various Heads—Economic Implications and Challenges Ahead	3	1, 3 & 4
	4.3	Structure and Trend of Different Types of Deficit and Debt— Economic Implications—Debt Redemption— Issues Ahead	3	1, 3 & 4
	<b>Practicum</b>	1) Furnish a write-up on the definitional aspects of various components of annual financial statement and budget at a glance. 2) Provide an account on the various components of annual financial statement and budget at a glance by pointing out their significance for policy purposes	6	1, 3 & 4

**Mode of Assessment**



**A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

- 1) Cullis, J. G., & Jones, P. R. (2009). *Public Finance and Public Choice: Analytical Perspectives* (3. ed). Oxford University Press.
- 2) GoI. (n.d.-a). *Economic Survey, Various Years*. Govt of India.
- 3) GoI. (n.d.-b). *Report of Finance Commissions, Various Reports*. Govt of India.
- 4) GoI. (n.d.-c). *Union Budget Documents, Various Years*. Govt of India.
- 5) GoK. (n.d.-a). *Economic Review, Various Years*. Kerala State Planning Board.
- 6) GoK. (n.d.-b). *Kerala Budget Documents, Various Years*. Govt of Kerala.
- 7) GoK. (n.d.-c). *Report of State Finance Commissions, Various Reports*. Govt of Kerala.
- 8) Gruber, J. (2022). *Public Finance and Public Policy* (Seventh edition, international edition). Worth Publishers, Macmillan Learning.
- 9) Musgrave, R. A., & Musgrave, P. B. (1989). *Public Finance in Theory and Practice* (5th ed). McGraw-Hill Book Co.

**Additional References**

- 1) Dalton, H. (2013). *Principles of Public Finance*. Taylor and Francis.
- 2) Musgrave, R. A. (1959). *The Theory of Public Finance: A Study in Public Economy* (International student ed). McGraw-Hill Kogakusha.



**Syllabus - Semester IV**

<b>Course Code</b>	<b>Course Title</b>	<b>Type</b>
MCE4DSCECA200	Applied Macroeconomics II	DSC
MCE4DSEECA200	Applied International Economics	DSE
MCE4DSEECA201	Kerala Economy: Analytical Issues	DSE
MCE4SECECA200	Econometric Methods for Research	SEC
MCE4VACECA200	Political Economy of Development	VAC
MCE4DSCECA201	Kerala Economy: Economic History & Development Initiatives	DSC B
MCE4INTECA200	Internship (Summer)	INT



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Applied Macroeconomics II</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE4DSCECA200</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	The course attempts to explore the macroeconomic topics especially the Keynesian ideas when prices and wages are not held constant and see that demand as well as supply factors play a role in determining output. It also explores the theoretical developments regarding consumption and investment. Besides, course provides a thorough discussion of Phillips curve analysis and its implications upon short-run and long-run..					
<b>Semester</b>	<b>4</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>						

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	comprehend critically the Keynesian system and interpret its policy implications	U, E & C	1, 2 & 4
2	appreciate the absolute income hypothesis and other consumption theories by locating them against the findings of econometric studies on consumption	U & E	1, 2
3	develop a perspective and formal understanding of various theories of Investment	U & E	3, 4
4	discuss critically the theoretical developments regarding the Phillips curve analysis and interpret its implications upon short-run and long-run	U, E & C	3, 4
* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)			

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>The Keynesian System</b>			
	<b>1.1</b>	Aggregate Supply and Demand—Keynesian Aggregate Demand and Supply	<b>4</b>	<b>1, 2</b>
	<b>1.2</b>	Effects of Shifts in the Aggregate Supply Schedule—Keynes versus the Classics	<b>4</b>	<b>1, 2</b>
	<b>Practicum</b>	Discuss the contractual view of labour market citing examples from real world experiences.	<b>6</b>	<b>1, 2</b>
<b>2</b>	<b>Theories of Consumption</b>			
	<b>2.1</b>	Theories of Consumption: Absolute Income Hypothesis	<b>1</b>	<b>1, 2</b>
	<b>2.2</b>	Kuznet's Econometric Study and Consumption Puzzle—Relative Income Hypothesis	<b>2</b>	<b>1, 2</b>
	<b>2.3</b>	Permanent Income Hypothesis— Life Cycle Hypothesis	<b>4</b>	<b>1, 2</b>



	<b>Practicum</b>	Discuss the results of econometric studies on consumption by Kuznets & Arthur Smithies and the reconciliation of conflict by Smithies	<b>8</b>	<b>1, 2</b>
<b>Investment, Inflation and Unemployment</b>				
<b>3</b>	<b>3.1</b>	Investment: Definition & Types of Real Capital Goods—Keynesian theory of investment MEC—Accelerator theory; Naïve and Flexible	<b>5</b>	<b>1, 2</b>
	<b>3.2</b>	Neoclassical theory of Investment: Jorgenson—Tobin's q Theory of Investment—Empirical Studies of Investment Demand—Implications for Economic Policy	<b>4</b>	<b>1, 2</b>
	<b>3.3</b>	Demand-pull and Cost-push inflation—Costs of Inflation—Sacrifice ratio— Unemployment: Costs of Unemployment – Okun's Law	<b>2</b>	<b>1, 2</b>
	<b>Practicum</b>	Evaluate and interpret the various measures of inflation in India	<b>8</b>	<b>1, 2</b>
<b>Phillips Curve: Short-run and Long-run</b>				
<b>4</b>	<b>4.1</b>	Inflation: Definition and Types—Demand-pull and Cost-push inflation – Costs of inflation – Sacrifice ratio	<b>2</b>	<b>3, 4</b>
	<b>4.2</b>	Output–Inflation Trade-Off—Phillips Curve—Interpretation: Lipsey's Excess Demand Model—Solow-Samuelson Modification	<b>5</b>	<b>3, 4</b>
	<b>4.3</b>	Short-run and Long-run Philips Curve (Natural Rate of Unemployment Hypothesis)—Adaptive Expectations & Expectations-Augmented Philips Curve	<b>6</b>	<b>3, 4</b>
	<b>Practicum</b>	1) Discuss the policy implications of Expectations-Augmented Philips Curve	<b>8</b>	<b>3, 4, 5</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**Reference**

1. Abel, A. B., Bernanke, B., & Croushore, D. (2011). *Macroeconomics* (7 ed.). Pearson.
2. Ackley, G. (1969). *Macroeconomic Theory*. Macmillan.
3. Dornbusch, R., Fischer, S., & Startz, R. (2018). *Macroeconomics* (13 ed.). New York: McGraw-Hill.
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5. Froyen, R. T. (2013). *Macroeconomics* (10 ed.). Pearson Education.
6. Gordon, R. J. (2012). *Macroeconomics* (12 ed.). Pearson.
7. Mankiw, N. G. (2013). *Macroeconomics* (8 ed.). Worth Publishers.



8. Pentecost, E. J. (2000). *Macroeconomics: An Open Economy Approach*. Macmillan.
9. Shapiro, E. (1978). *Macroeconomic Analysis* (4 ed.). Harcourt Brace Jovanovich.
10. Snowdon, B., & Vane, H. R. (2005). *Modern Macroeconomics: Its Origins, Development and Current State*. Edward Elgar.
11. Westaway, A. J., & Weyman-Jones, T. G. (1984). *Macroeconomics: Theory, Evidence and Policy* (4. impr). Longman.

**Additional Reading**

1. Blanchard, O. (2017). *Macroeconomics* (7 ed.). Pearson.
2. Branson, W. H. (1979). *Macroeconomic Theory and Policy*. Universal Book Stall.
3. Hubbard, R. G., & O'Brien, A. (2013). *Macroeconomics* (4 ed.). Pearson.
4. Krugman, P., & Wells, R. (2018). *Macroeconomics* (5 ed.). Macmillan.
5. Levačić, R., & Rebmann, A. (1976). *Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies* (2 ed.). Macmillan.
6. Mishkin, F. S. (2012). *Macroeconomics: Policy and Practice*. Pearson.
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<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Applied International Economics</b>					
<b>Type of Course</b>	<b>DSE</b>					
<b>Course Code</b>	<b>MCE4DSEECA200</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	Students assimilate international economics when it is presented as a method of analysis and linked to events in the world economy. This course covers recent changes in the international economic environment, trade models and its real-world relevance. The objective of this course to stress concepts, theories and their application to explain the operation of international trade.					
<b>Semester</b>	<b>4</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Collaborative and learner-centered	<b>3</b>		<b>1</b>		<b>75</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	Students develop a better understanding on the theories of international trade and Its developments		R,U	1
2	Students get clear understanding about contemporary international economic Issues		U	1,2
3	Students able to understand the changing world and apply theories to current international economics arrangements		U,A	1, 2
4	Analyse actual problems of international economic policy and evaluate trade policy effects		U,An,E	2, 3
5	Critically evaluate current International financial arrangements and theories of international finance		U,E	2, 3
6	Create Knowledge for better International economic relationships and to address international economic issues		U,C	3,4

\* Remember (R), Understand (U), Apply (A) , Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Module 1-Introduction to Trade Theories</b>			
	<b>1.1</b>	What Is International Economics About?- An overview of World Trade: Economy's size and Trade-Gravity Model-Changing Pattern of World Trade- Composition of India's Trade(Self study).	3	1,2,3
	<b>1.2</b>	Early Trade Theories-Ricardian Theory and Comparative Advantage -Comparative advantage and opportunity costs-Opportunity cost theory-Offer curves and Terms of Trade.	3	1
	<b>1.3</b>	Factor Endowments and the Heckscher-Ohlin Model-Empirical Tests of the Factor Endowments Approach.	3	1,3
	<b>Practicum</b>	1.Prepare a report on the changing trade pattern of developing countries with a special reference to India. 2.Find out Economy's size and Trade relation of developing countries using Gravity model.	10	3,6



		3. Draw a pie-chart of composition of world trade. 4. "The world's poorest countries cannot find anything to export. There is no resource that is abundant—certainly not capital or land, and in small poor nations not even labor is abundant." Discuss.		
2	<b>Module 2- Post-Heckscher Ohlin Theories of Trade</b>			
	2.1	Technology and Trade; Imitation-gap theories of trade-Product-cycle theories of trade.	4	1,3
	2.2	Intra-Industry Trade; The neo-Heckscher-Ohlin model, The reciprocal dumping model-The Brander-Krugman model.	4	1,3
	2.3	Growth and Trade- Immiserizing growth model-The Rybczynsky Theorem-Factor Growth and Output; Stolper-Samuelson Theorem – Metzler paradox.	4	1,2,3
	<b>Practicum</b>	Give three examples of products that are traded on international markets for which there are dynamic increasing returns. In each of your examples, show how innovation and learning-by-doing are important to the dynamic increasing returns in the industry.	10	3
3	<b>Module 3- International Trade Policies</b>			
	3.1	Basic Tariff Analysis-Effects of Tariff; partial and general equilibrium effects of Tariff-Costs and Benefits of a Tariff-The optimum tariff.	4	4
	3.2	Other Instruments of Trade Policy: Export Subsidies, Import quotas, Voluntary Export Restraints-Free Trade and Protection- New Protectionism.	4	4
	3.3	Economic Integration Types; Free-Trade Area, Customs Union, Common Market, Economic Union; Static and Dynamic Effects; The European Union, NAFTA, APEC, ASEAN -WTO Role and Performance.	4	3,4
	<b>Practicum</b>	Use your knowledge about trade policy to evaluate each of the following statements: a. "Tariffs on imported goods will increase domestic price, leading to high unemployment." b. "High tariffs and quotas can result in trade wars between nations."	10	4
4	<b>Module 4-BOP Adjustments and Forex Market</b>			
	4.1	BOP Basic Concepts-BOP Disequilibrium and Price adjustments- Elasticity Approach-Marshall Learner Conditions-J Curve Effect-Absorption Approach - Monetary Approach- Adjustments in Gold Standard.	4	5,6
	4.2	Forex Market-Exchange Rate Systems- Fixed and Flexible Exchange Rate Debate-Currency Boards-Optimum Currency Area-Hybrid Systems Combining Fixed and Flexible Exchange Rates.	4	5,6
	4.3	Theories of Exchange rate Determination-Mint Parity- PPP Approach- Monetary Approach and Asset Market Approach.	4	1,3,5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,



Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Soderston, B and Reed G. (1994) - International Economics, 3rd Edition, McMillan Press Ltd. London.
2. Salvatore, D (2008) - International Economics, 8th Ed, Wiley India, New Delhi.
3. Appleyard D. R and Field A J (2014) -International Economics 8 th Ed McGraw Hill, New Delhi.
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5. Bhagwati, J. N. (1987), International trade: Selected readings, Second Edition, MIT Press, Cambridge, Massachusetts

**Additional References**

1. Ronald W. Jones. "Factor Proportions and the Heckscher-Ohlin Theorem." Review of Economic Studies 24 (1956), pp. 1–10. Extends Samuelson's 1948–1949.
2. Bertil Ohlin. Interregional and International Trade. Cambridge: Harvard University Press, 1933.
3. Jagdish Bhagwati. "On the Equivalence of Tariffs and Quotas," in Robert E. Baldwin et al., eds. Trade, Growth, and the Balance of Payments. Chicago: Rand McNally, 1965.
4. W. M. Corden. The Theory of Protection. Oxford: Clarendon Press, 1971.
5. Michael Porter. The Competitive Advantage of Nations. New York: Free Press, 1990.





<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Kerala Economy: Analytical Issues</b>					
<b>Type of Course</b>	<b>DSE</b>					
<b>Course Code</b>	<b>MCE4DSEECA201</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	The course aims to introduce students to the current and critical issues, problems and challenges of the Kerala economy to develop analytical ability to understand the dynamics of a regional economy and its development experiences in its historical backdrop.					
<b>Semester</b>	<b>4</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practical / Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>4</b>				<b>60</b>
<b>Pre-requisites, if any</b>						

### COURSE OUTCOMES (CO)

<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PO No</b>
1	Dissect the Kerala's development experiences from a historical perspective.	U, An, E	1 & 2
2	Critically understand the problems, performance, prospects and of the Kerala economy.	U, E & C	2, 3 & 4
3	Evaluate the structural changes and sectoral issues of Kerala economy.	An, E & C	2, 3 & 4
4	Comprehend critically the fiscal and decentralisation issues of Kerala Economy	An, E & C	2, 3 & 4
5	Familiarise the various databases on Kerala economy and use them for analysing the problems of the state economy	U & A	1 & 2

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Economic History: Backdrop</b>			
	<b>1.1</b>	Pre-Capitalist Relations of Production and Socio-Economic Consequences: Land Ownership and Rights—Jenmon Rights—Mysore Settlement and Ryotwari Settlement—Travancore Anti-Slavery Proclamation 1853—Travancore Pattom Proclamation 1865	5	1
	<b>1.2</b>	Commercialisation of Agriculture: Shift from Food Crops to Cash Crops—Economic Consequences: Social and Political Movements—Development Initiatives	5	1
	<b>1.3</b>	Kerala's Development Experience—Achievements & Challenges—Kudumbasree Movement: Poverty Alleviation & Empowerment—Migration & Emigration-Remittances	5	1
<b>2</b>	<b>Growth Performance and State Public Finances</b>			
	<b>2.1</b>	Growth Performance of the Economy—Sectoral Pattern—Issues & Challenges	5	1 & 2



	<b>2.2</b>	Expenditure & Revenue of the State—Budgetary Trends—Deficit and Debt—Fiscal Issues—Devolution through Finance Commission—Current Challenges	5	1 & 2
	<b>2.3</b>	Local Government and Decentralised Planning—Expenditure and Revenue of Local Governments—State Finance Commissions—Report of Last Two Commissions—Major Issues	5	1 & 2
<b>3</b>	<b>Agricultural and Industrial Sectors</b>			
	<b>3.1</b>	Agricultural Sector—Cropping Pattern—Production and Productivity Trends of Major Crops—Land Reforms—Agriculture Credit & Indebtedness—Agricultural & Food Processing and Agri-Industries—Fisheries and Aquaculture—Production Trends—Major Issues—Mining Sector	5	2 & 3
	<b>3.2</b>	Industrial Sector—Growth and Performance—Hypothesis of Industrial Stagnation—Labour Relations—Construction & Manufacturing—Issues and Challenges	5	2 & 3
	<b>3.3</b>	State Public Sector Undertakings—MSME and Traditional Industries: Performance and Problems—Industrial Financing	5	2 & 3
<b>4</b>	<b>Service Sector &amp; Employment</b>			
	<b>4.1</b>	Sectoral Growth & Performance: Real estate, Ownership of Dwelling & Professional Services—Trade & Repair Services	5	3 & 4
	<b>4.2</b>	Transport, Storage, Communication—Financial Services—Public Administration—Hotels & Restaurants—Other Services—Major Challenges	5	3 & 4
	<b>4.3</b>	Employment Scenario: Kerala Employment & Unemployment Rates—Employment in Unorganised Sector	5	3 & 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

- Cherian, P. (2006). Land Tenure Legislations in Kerala: An Enquiry into their Roots in 1865 in Travancore. *Proceedings of the Indian History Congress*, 67, 457-463.
- Desai, M. (2005). Indirect British Rule, State Formation, and Welfarism in Kerala, India, 1860-1957. *Social Science History*, 29(3), 457-488.
- Ganesh, K. N. (1991). Ownership and Control of Land in Medieval Kerala: Janmam and Kanam Relations during the 16th-18th Centuries. *The Indian Economic and Social History Review*, 28(3), 299-321.
- Kannan, K. P., & Hari, K. S. (2020). Revisiting Kerala's Gulf Connection: Half a Century of Emigration, Remittances and Their Macroeconomic Impact, 1972–2020. *The Indian Journal of Labour Economics*, 63, 941–967.



5. Nair, P. R. (1976). Education and Socio-Economic Change in Kerala, 1793-1947. *Social Scientist*, 4(8), 28-43.
6. Prakash, B. A. (2004). *Kerala's Economic Development Performance and Problems in the PostLiberalization Period*. SAGE Publications Pvt. Ltd.

#### Additional References

1. Oommon, T. K. (1975). Agrarian Legislations and Movements as Sources of Change: The Case of Kerala. *Economic and Political Weekly*, 10(40), 1571-1584.
2. Prakash, B. A. (1988). Agricultural Backwardness of Malabar during the Colonial Period: An Analysis of Economic Causes. *Social Scientist*, 16(6/7), 51-
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4. Chakraborty, A. (2005). Kerala's Changing Development Narratives. *Economic and Political Weekly*, 40(6), 541-547.
5. George, K. (1993). *Limits to Kerala Model of Development*. Centre for Development Studies.
6. Kannan, K. P., & Pushpangadan, K. (1988). Agricultural Stagnation in Kerala: An Exploratory Analysis. *Economic and Political Weekly*, 23(39), A120-A128.
7. Kannan, K. P. (1990). Kerala Economy at the Crossroads? *Economic and Political Weekly*, 25(35/36), 1951-1956.
8. Kannan, K. P. (2005). Kerala's Turnaround in Growth: Role of Social Development, Remittances and Reform. *Economic and Political Weekly*, 40(6), 548-554.
9. Rammohan, K. (2000). Assessing Reassessment of Kerala Model. *Economic and Political Weekly*, 35(15), 1234-1236.
10. Thomas, P. M. (2004). Agricultural Performance in Kerala. In B. A. Prakash, *Kerala's Economic Development Performance and Problems in the Post-Liberalization Period*. SAGE Publications Pvt. Ltd.



<b>Programme</b>	<b>BA Applied Economics</b>				
<b>Course Name</b>	<b>Econometric Methods for Research</b>				
<b>Type of Course</b>	<b>SEC</b>				
<b>Course Code</b>	<b>MCE4SECECA200</b>				
<b>Course Level</b>	<b>200-299</b>				
<b>Course Summary</b>	The course aims to equip the learner with the essential skills especially of the armory of econometrics for analysing relationships with a view to exploring the interconnectedness between variables for research purposes. In fact, it is such influences that decisively shape the empirical phenomena often encountered in the real world upon which research activities are conducted to explain them in a theoretical and academic manner. The theoretical discussion will focus upon the intuitive explanation of relevant econometric ideas for the eventual purpose of rigorously conducting research activities.				
<b>Semester</b>	<b>4</b>	<b>Credits</b>		<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>
	Hands-on Activities, Simulations, Scaffold Learning, and Reflective Learning	<b>3</b>			

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	analyse the relationship between variables with respect to various physical and social phenomena	U, A & An	1 & 2
2	apply the open source econometric software packages such as Gretl, R to estimate econometric models using real world data	U & A	1 & 2
3	evaluate the coefficients of estimated relationships with a view to interpreting them for their generalisation	An, E & C	3 & 4
4	explain and intuitively interpret the econometric results in theoretical and in plain language.	An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Simple Regression Model</b>			
	<b>1.1</b>	Variables and Distribution—Summary Measures: Descriptive Statistics—Arithmetic Mean, Standard Deviation and Variance (Concepts Discussion)	5	1 & 2
	<b>1.2</b>	Correlation, Covariation and Causation—Definition & Scope of Econometrics, Modern Interpretation—PRF-Linearity-Stochastic Disturbance Term: Significance (Concepts Discussion)	5	1 & 2
	<b>1.3</b>	SRF—Assumptions—Guass-Markov Theorem—Normality (Concepts Discussion)	5	1 & 2
	<b>Assignment</b>	1) Discussion of the basic aspects of software environment of spreadsheet and Gretl or programming environment of R 2) Computation of frequency measures and descriptive statistics by using real world databases with Gretl or		



		R software package		
2	<b>Problem of Estimation</b>			
	2.1	Goodness of the Fit—R-square and Adjusted R Square— Estimation and Testing of Hypothesis: t and F statistic (Concepts Discussion)	5	2 & 3
	2.2	Standard Error and Robust Standard Errors—Multiple Regression Models (Concepts Discussion)	5	2 & 3
	2.3	Detection and Remedies of Problems such as Heteroscedasticity, Auto-correlation, Multicollinearity	5	2 & 3
	<b>Assignment</b>	1) Estimation of regression model, evaluation of model adequacy and interpretation		
3	3.1	Semilog Models and Growth Rate Estimation (Concepts Discussion)	5	2 & 3
	3.2	Qualitative Explanatory Variables—Dummy Variable Regression: ANOVA Models— Dummy Variable Trap (Concepts Discussion)	5	2 & 3
	3.3	Dummy Variable Regression: ANCOVA Models— Interpretation	5	2 & 3
	<b>Assignment</b>	1) Estimation of growth rate, evaluation and interpretation 2) Estimation of dummy variable regression model, evaluation of model adequacy and interpretation		

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

Components of CIA
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

Time: 1½ hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

- 1) Colonescu, C. (2018). *Using R for Principles of Econometrics* (Second edition). MacEwan University.
- 2) Davies, T. M. (2016). *The Book of R: A First Course in Programming and Statistics*. No Starch Press.
- 3) De Vries, A., & Meys, J. (2012). *R for Dummies*. Wiley.
- 4) Gujarati, D. N. (2015). *Econometrics by Example* (2. ed). Palgrave Macmillan.
- 5) Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). *Basic Econometrics* (Fifth edition. Special Indian edition. 5th ed., 19th reprint, 2018). McGraw-Hill Education (India) Private Limited.
- 6) Schmuller, J. (2017). *Statistical Analysis with R for Dummies*. John Wiley & Sons, Inc.

**Additional References**

- 1) Hill, R. C., Griffiths, W. E., & Lim, G. C. (2018). *Principles of Econometrics* (Fifth edition). Wiley Custom
- 2) Stock, J. H., & Watson, M. W. (2018). *Introduction to Econometrics* (Updated third edition). Pearson.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Political Economy of Development</b>					
<b>Type of Course</b>	<b>VAC</b>					
<b>Course Code</b>	<b>MCE4VACECA200</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	The course attempts to develop an insightful yet critical comprehension of the underlying influences of theoretical developments in economics especially with respect to the ideas of economic growth and development.					
<b>Semester</b>	<b>4</b>	<b>Credits</b>			<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able:</i>			
1	to understand and evaluate the political economy of growth and development		U, An, E	1 & 2
2	to appreciate the mainstream development theories and interpret their implications		U, An, E & C	2, 3 & 4
3	to develop a critique of the mainstream theories, globalisation and challenges ahead for creating an insightful understanding of the phenomenon of economic growth and development		An, E & C	2, 3 & 4
* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)				

<b>COURSE CONTENT</b>					
<b>Content for Classroom Transactions (Units)</b>					
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>	
<b>1</b>	<b>Political Economy &amp; Development: Concepts and Definitions</b>				
	<b>1.1</b>	Political Economy Perspective: Nature and Scope of Economic Analysis—Concept of Development: The Background—Production, Growth, and Development—Freedom and Capability		5	1 & 2
	<b>1.2</b>	Alternative Approaches to Development Economics: Development Economics as a Separate Branch of Economics, Institutions and Resource Allocation, Income Distribution and Growth, Trade and Development, Economic Policy and the State		5	1 & 2
	<b>1.3</b>	Economic Growth and Development—The Questions: Cross-Country Income Differences, Income and Welfare, Economic Growth and Income Differences, Origins of Income Differences and World Economic Growth, Conditional Convergence, Correlates of Economic Growth—From Correlates to Fundamental Causes		5	1 & 2
<b>2</b>	<b>Development Theories and Implications</b>				
	<b>2.1</b>	Theoretical Heritage and Implications: Classical Legacy, Classical Marxist Perspective, Schumpeter on Growth, Development and Entrepreneurship, Keynesian Revolution		5	2 & 3



	2.2	Harrod and Domar on the Conditions for Growth with Full Employment, The Neo-Classical Paradigm	5	2 & 3
	2.3	Theoretical Debate in Development Economics from the 1940s and the Implications: Rosenstein-Rodan & Nurkse, Hirschman, Leibenstein, Myrdal, Myint, Bauer and Yamey, Lewis and Rostow—Redefinition of Development—Basic Needs Approaches to Development—New Developmentalism	5	2 & 3
	<b>Critique of the Mainstream, Globalisation and Challenges Ahead</b>			
3	3.1	Structuralist School in Latin America and the Critique of the Mainstream: Prebisch, Hans Singer, Furtado—Neo-Marxist Paradigm: Paul Baran's Analysis of the Causes of Underdevelopment, André Gunder Frank: Development of Under Development	5	3 & 4
	3.2	Emmanuel and the Theory of Unequal Exchange, Samir Amin and Underdevelopment in The Periphery, Cardoso and Faletto: Dependent Development and the Importance of Country-Specific Studies	5	3 & 4
	3.3	Globalisation and Development—Neo-liberalism—Hyper-Globalisation—Financial Globalization—Managed Globalisation & Bretton Woods Compromise—Challenges Ahead: Growing Inequality, Distribution of Productive Assets and its Implications	5	3 & 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

- 1) Acemoglu, D. (2009). *Introduction to Modern Economic Growth*. Princeton University Press.
- 2) Bardhan, P. (1988). Alternative Approaches to Development Economics, Chapter 3. In *Handbook of Development Economics* (Vol. 1, pp. 39–71). Elsevier.
- 3) Hunt, D. (1989). *Economic Theories of Development: An Analysis of Competing Paradigms*. Harvester Wheatsheaf.
- 4) Pereira, L. C. B. (2024). *New Developmentalism: Introducing a New Economics and Political Economy*. Edward Elgar Publishing.
- 5) Saad-Filho, A., & Johnston, D. (Eds.). (2005). *Neoliberalism: A Critical Reader*. Pluto Press.

**Additional References**

- 1) Nissanke, M., & Ocampo, J. A. (Eds.). (2019). *The Palgrave Handbook of Development Economics: Critical Reflections on Globalisation and Development*. Palgrave Macmillan.
- 2) Schultz, T. P., & Strauss, J. (2008). *Handbook of Development Economics*. Elsevier.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Kerala Economy: Economic History &amp; Development Initiatives</b>					
<b>Type of Course</b>	<b>DSC-B</b>					
<b>Course Code</b>	<b>MCE4DSCECA201</b>					
<b>Course Level</b>	<b>200-299</b>					
<b>Course Summary</b>	The course aims to expose students to the economic history of Kerala's widely acclaimed development experience, a path hitherto unexplored. The current issues, problems and challenges of the Kerala economy are discussed in a critical manner to develop analytical ability to understand the dynamics of a regional economy and its development experiences in its proper historical setting.					
<b>Semester</b>	<b>4</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>75</b>
<b>Pre-requisites, if any</b>						

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	to appraise the developments of Kerala economy from the vantage point of historical backdrop of the state	U, An & E	1 & 2
2	to evaluate and interpret the achievements and challenges of Kerala's development experience	U, An & E	2, 3 & 4
3	to examine the consequences of economic development upon agriculture and the later turnaround	An & E	2, 3 & 4
4	to appreciate the historical issues connected with the economic interests of capital and labour and their implications	An, E & C	3 & 4
* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)			

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Economic History of Kerala: The Backdrop</b>				
<b>1</b>	<b>1.1</b>	Origin of Pre-Capitalist Relations of Production and Socio-Economic Consequences: Land Tenure System from 1700 onwards—Land Ownership Pattern and Rights	4	1 & 2
	<b>1.2</b>	Origin of Jenmon Right—Land Taxation in Malabar: Mysore Settlement and Ryotwari Settlement—Travancore Anti-Slavery Proclamation 1853—Travancore Pattom Proclamation 1865—Mobilisation of Agricultural Labour	4	1 & 2





	<b>1.3</b>	Commercialisation of Agriculture: Shift from Food Crops to Cash Crops—Social and Political Movements—Welfare State Initiatives of Princely States	3	1 & 2
	<b>Practicum</b>	Prepare a list of social movements and its consequences that emerged in the background of economic changes took place in the economy and initiate a group discussion.	6	1 & 2
	<b>Kerala's Development Experience</b>			
<b>2</b>	<b>2.1</b>	Trade and Politics in the Eighteenth Century—Agriculture and Landed Property—Business Developments—Inequality and Labour—The Stride in Mass Education	4	2 & 3
	<b>2.2</b>	Kerala's Development Experience—Limits to Kerala model of development	3	2 & 3
	<b>2.3</b>	Social Security—Sustainability Issues—Kerala: An Unexplained Puzzle—Globalisation and Resource Endowments—Migration and Demography—Politics and the State	4	2 & 3
	<b>Practicum</b>	Initiate a discussion with the help of a report that narrates the various dimensions of the much acclaimed Kerala's development experience	8	2 & 3
	<b>Retreat of Agriculture and the Turnaround</b>			
<b>3</b>	<b>3.1</b>	The Retreat of Agriculture—Land Reclamation and the Emergence of Capitalist Agriculture—Land Reform and Trade Union Power	4	3 & 4
	<b>3.2</b>	Turnaround of 1980s and the Long-term Pattern—Plantations and Tree Crops	4	3 & 4
	<b>3.3</b>	Women as Landowners and Agricultural Workers	2	3 & 4
	<b>Practicum</b>	Prepare a report and discuss the implications of various land reclamation initiatives undertaken during the first half of 20 <sup>th</sup> century.	8	3 & 4
	<b>Capital and Labour: The Historical Setting</b>			
<b>4</b>	<b>4.1</b>	Capital: Retreat and Resurgence—The Retreat of Private Capital—De-industrialisation: Theories—The Resurgence of Capitalism since 2000's—Selling Nature	5	3 & 4
	<b>4.2</b>	Diversification of Business Groups—Modernisation of Businesses—Capitalism in the State: Special Nature and Features	4	3 & 4
	<b>4.3</b>	Work, Labour and Migration: Persian Gulf Migration: A South Asian Story—Migration and Development: The Consumption-Saving Connection—Migration and Development: The Skill Connection—Migration and Development: Role of Women—Migration and Development: Capitalism—Immigration	4	3 & 4
	<b>Practicum</b>	Furnish a report of the problems of return migration from middle east especially after the crisis of Covid-19 pandemic	8	3 & 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.



**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

- Cherian, P. (2006). Land Tenure Legislations in Kerala: An Enquiry into their Roots in 1865 in Travancore. *Proceedings of the Indian History Congress*, 67,
- 457-463.
- Desai, M. (2005). Indirect British Rule, State Formation, and Welfarism in Kerala, India, 1860-1957. *Social Science History*, 29(3), 457-488.
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- Nair, P. R. (1976). Education and Socio-Economic Change in Kerala, 1793-1947. *Social Scientist*, 4(8), 28-43.
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- Roy, T., & Ravi Raman, K. (2024). *Kerala, 1956 to the Present: India's Miracle State*. Cambridge University Press.

**Additional References**

- Oommon, T. K. (1975). Agrarian Legislations and Movements as Sources of Change: The Case of Kerala. *Economic and Political Weekly*, 10(40), 1571-1584.
- Prakash, B. A. (1988). Agricultural Backwardness of Malabar during the Colonial Period: An Analysis of Economic Causes. *Social Scientist*, 16(6/7), 51-76
- Ravindran, G. (1995). Political Economy of Late Pre-Colonial Malabar. *Social Science Probings*, 11/12, 66-87.
- Chakraborty, A. (2005). Kerala's Changing Development Narratives. *Economic and Political Weekly*, 40(6), 541-547.
- George, K. (1993). *Limits to Kerala Model of Development*. Centre for Development Studies.
- Kannan, K. P., & Pushpangadan, K. (1988). Agricultural Stagnation in Kerala: An Exploratory Analysis. *Economic and Political Weekly*, 23(39), A120-A128.
- Kannan, K. P. (1990). Kerala Economy at the Crossroads? *Economic and Political Weekly*, 25(35/36), 1951-1956.
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- Thomas, P. M. (2004). Agricultural Performance in Kerala. In B. A. Prakash, *Kerala's Economic Development Performance and Problems in the Post Liberalization Period*. SAGE Publications Pvt. Ltd.



**Syllabus - Semester V**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE5DSCECA300	Environmental and Ecological Economics	DSC
MCE5DSCECA301	Economics of Growth and Development	DSC
MCE5DSCECA302	Public Finance and Public Choice	DSC
MCE5DSEECA300	Advanced Econometric Analysis	DSE
MCE5DSEECA301	Game Theory	DSE
MCE5SECECA300	Data Analytics with Spreadsheet Applications	SEC



<b>Programme</b>	<b>BA Applied Economics</b>				
<b>Course Name</b>	<b>Environmental and Ecological Economics</b>				
<b>Type of Course</b>	<b>DSC</b>				
<b>Course Code</b>	<b>MCE5DSCECA300</b>				
<b>Course Level</b>	<b>300-399</b>				
<b>Course Summary</b>	The course explores the interplay between the economy and the ecology, addressing environmental issues from an economic perspective. The course covers key concepts like market failures, externalities, and the economics of sustainable development. It introduces valuation methods for environmental benefits and discusses environmental policies, both market-based and regulatory. The course also delves into pressing environmental issues such as climate change, pollution, and their control measures, emphasizing the application of economic principles to real-world challenges.				
<b>Semester</b>	<b>5</b>	<b>Credits</b>		<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>
	Authentic, Collaborative, and Case-based learning	<b>4</b>			

<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains</b>	<b>PO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	Students will gain a solid understanding of the interactions between the economy and the ecology	R,U	1
2	Apply economic principles to analyse environmental issues	A	2
3	Analyse effective environmental policies using market-based and regulatory approaches	An	3
4	Evaluate methods for valuing environmental benefits and their economic significance	E	3
5	Understand the concept of sustainable development and the principle of intergenerational equity.	U	1
6	Discuss case studies and assessments on environmental impact and pollution control strategies	E	4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Environment and Economy</b>				
<b>1</b>	<b>1.1</b>	Definition and scope-Environmental Economics- Ecological Economics- Ecology and Economics: Conflicting paradigms Ecosystem- Components, biophysical laws, carrying capacity, natural capital- Ecological footprints	6	1
	<b>1.2</b>	Environment and Economy interaction (linkages) – Material balance model - Environment Kuznets Curve	4	1
	<b>1.3</b>	Environment as a Public good—Market Failures- Externalities- Tragedy of commons -Coase Theorem	5	2
<b>Environmental Valuation and Accounting</b>				
<b>2</b>	<b>2.1</b>	Meaning and Types of Environmental Value: Use Value- Non-use value: Existence value, Option value, Bequest value, Vicarious value	2	4



	2.2	Stated Preference Method- Contingent Valuation Method, Experimental Market-Revealed Preference Method: Travel Cost Model-Hedonic Price Theory	10	4
	2.3	Environmental Accounting, System of Environmental Economic Accounting (SEEA), Environmental Impact Assessment (EIA)	3	4
	<b>Sustainable Development</b>			
3	3.1	Concepts and principles of sustainable development-Common Perrings model of ecological sustainability	3	5
	3.2	Sustainable Development Approaches: The Solow-Hartwick Approach—Natural Capital Stock Approach—Safe Minimum Standards (SMS) Approach-Daly's operational principles	10	5
	3.3	Strong and weak sustainability-Green GDP	2	5
	<b>Environmental Policy</b>			
4	4.1	Types of Environmental Regulation I: Command-and-Control Policies-Emission Standards-Technology Mandates	3	3
	4.2	Types of Environmental Regulation II: Economic Incentives- Pigouvian tax, Pollution fees, Emission charges, Marketable permits	10	3
	4.3	Audits, Enforcements, and Moral Hazard	2	3

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Bhattacharya, R. N. (2007). Environmental Economics: An Indian Perspective. Oxford University Press.
2. Daly, H. E., & Farley, J. C. (2011). Ecological Economics: Principles and applications (2nd ed.). Island Press.
3. Hanley, N., Shogren, J. F., & White, B. (1997). Environmental Economics in theory and practice. London: Macmillan.
4. Kolstad, C. (2010). Intermediate Environmental Economics (2nd ed.). Oxford University Press.
5. Sankar, U. (2009). Environmental Economics. New Delhi: OUP.
6. Sengupta, R. (2001). Ecology and economics: An approach to sustainable development. Oxford University Press.
7. Shishodia, A., & Singh, K. (2007). Environmental Economics: Theory and Application. Sage Publications.



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1. Sections I-VI in Coase, R.H. (1960). The Problem of Social Cost. *Journal of Law & Economics* 3:1-19
2. Ellerman, A.D. and J.-P. Montero (1998). "The Declining Trend in Sulfur Dioxide Emissions: Implications for Allowance Prices." *Journal of Environmental Economics and Management* 36:26-45.
3. Helfand, G.E. (1992). "Standards versus Standards: The Effects of Different Pollution Restrictions." *American Economic Review* 81(2):622-634.
4. Weitzman, M.L. (1974). "Prices vs. Quantities." *Review of Economic Studies* 41(4):477-491.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Economics of Growth and Development</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE5DSCECA301</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	This course delves into the factors influencing a country's economic prosperity. It explores the distinction between economic growth, and details out the process of economic growth and development. Apart from discussing the models of economic growth, it narrates the development issues existing in developing economies of the world.					
<b>Semester</b>	<b>5</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practical / Practicum</b>	<b>Others</b>	
		<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>	A basic understanding of the notion of growth and development, tools of microeconomics and macroeconomics					

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	Get a clear understanding about the distinction between economic growth and development		R & U	PSO 1
2	Acquire an insight on various measures of economic growth and development.		A	PSO 2
3	Acquire an ability to comprehend critically the models of economic growth.		A & U	PSO 3
4	Acquire knowledge about the problems of underdevelopment		U & A	PSO 2
5	Get a clear understanding of the problem of Dualism, Inequality etc.		An	PSO 4
6	Develop an understanding about the problem of population growth and create documents on demographic dividend		E & C	PSO 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Understanding Economic Growth and Development</b>			
	<b>1.1</b>	Understanding Economic Growth-What is Growth?- The meaning of underdevelopment	3	1
	<b>1.2</b>	The Perpetuation of Underdevelopment- Index of Development-Measures of Economic Growth and Development	5	2
	<b>1.3</b>	Development Economics as subject	3	2
	<b>Practicum</b>	1. Discussion –Growth and Development in India and US 2. Seminar-Human Development Index in India and its neighboring nations.	5	2
<b>2</b>	<b>The Characteristics of Underdevelopment and Structural Change</b>			



	<b>2.1</b>	Dominance of Agriculture-Low Level of Capital Formation-Population Growth	3	3
	<b>2.2</b>	The Curse of Natural resources- Weak Institutions-Inequality: Vertical and Horizontal-	5	3
	<b>2.3</b>	Stages of Development and Structural Change- Kaldor's Growth Law	5	4
	<b>Practicum</b>	1. Analyze population growth in Indian context. 2. Conduct a discussion on Inequality	5	4
	<b>Theories of Economic Growth</b>			
<b>3</b>	<b>3.1</b>	Classical Growth Theories-Adam Smith-Ricardo- Malthus-Marxian Theory	5	2
	<b>3.2</b>	Harrod-Domar Model-Robinson's Model-Solow Model-Kaldor Model	5	5
	<b>3.3</b>	Exogenous and Endogenous Growth Theories- 'New' Growth Theories-AK Model-Production Function Approach to Growth	6	6
	<b>Practicum</b>	1. Discuss the suitability of models in Indian conditions 2. Debate on the merits and demerits of Endogenous Growth Models	5	6
	<b>Growth Strategies</b>			
<b>4</b>	<b>4.1</b>	Rostow's Stages of Growth, The Vicious Circle of Poverty-Nelson's Low Level Equilibrium Trap- Leibenstein's Critical Minimum Effort Thesis- The Big Push	7	2
	<b>4.2</b>	Theory Balanced and Unbalanced Growth- Lewis Theory of Unlimited Supply of Labour	3	4
	<b>4.3</b>	Concept of dualism – Social, Technological, Financial and Geographical-Myrdal – Backwash and spread effect – Circular and cumulative causation – International inequality – Centre Periphery thesis	5	6
	<b>Practicum</b>	1. Discussion – International Inequality 2. Seminar-Gender Gap	5	6

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>	
Class Tests, Self and Peer Assessments, Open Book Tests,	
Assignments, Case study Report	
Seminar/Viva	
Project/Practicum/Quiz/Book Review/Fieldwork etc.	

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Jones, C. I., Vollrath, D. (2023). *Introduction to Economic Growth*. United States: W. W. Norton, Incorporated.
2. Ray, Princeton University Press, 1998 D. (1998). *Development Economics*. New York: Princeton University Press.
3. Thirlwall, A. P. (2003). *Growth and Development: With Special Reference to Developing Economies*. New Delhi: Palgrave Macmillan.





<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Public Finance and Public Choice</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE5DSCECA302</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	Public economics is based on the theory of welfare economics and used as a tool to improve social welfare. Public economics provides a framework for thinking about whether or not the government should participate in markets and to what extent it should do so. It makes to see government policy through the lens of economic efficiency and equity. The objective of this course is to familiarize students about the rationale for and role of government intervention in economic activities and how the government makes economic decisions. The course will also examine the recent developments in both theoretical and empirical literature in the area. The course emphasizes on public choice and related challenges too. The course will be useful for students aiming towards careers in the government sector, policy analysis, business, and journalism.					
<b>Semester</b>	<b>5</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practical / Practicum</b>	<b>Others</b>	
	Constructive learning	<b>4</b>				<b>60</b>

### COURSE OUTCOMES (CO)

<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PO No</b>
1	Get a clear understanding about the role of the government and fiscal functions.	Remember and Understand	1
2	Acquire an insight on various types of public goods and the need of public expenditure.	Understand and Analyze	2
3	Acquire an ability to comprehend critically the tax policies of the government and sources of government revenue.	Evaluate and Analyze	2, 3
4	Acquire a knowledge about public debt and budgeting of the government.	Understand and Evaluate	2, 3
5	Get a clear understanding of concepts and theories related to public choice and collective decision making.	Understand	2, 3, 4
6	Develop an understanding about the Indian Public Finance.	Understand and Evaluate	2, 3, 4

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Role of Government and Theory of Public goods</b>			
	<b>1.1</b>	Role of government-Principle of Maximum Social Advantage. Fiscal Functions: Allocation, Distribution and Stabilization Functions (Musgrave)	<b>4</b>	<b>1</b>
	<b>1.2</b>	Allocation: Public Goods and Market failure-Private good versus Public good (Partial Equilibrium)-Types of Public goods: Pure and Impure goods, Mixed goods, Club goods, Merit goods- Efficient	<b>4</b>	<b>2</b>



		provision of public goods: Lindhal equilibrium-Samuelson's general equilibrium model.		
	1.3	Problems of preference revelation: Free rider mechanisms for preference revelation: Groves-Clarke Mechanism.	2	2
2	<b>Public Expenditure and Theory of Taxation</b>			
	2.1	Meaning and classification of public expenditure-Theories of public expenditure: Wagner's law, Peacock-Wise man's and Collin Clark's hypotheses.	3	2
	2.2	Taxation: Canons of taxation, Types: Unit tax, Advalorem tax, VAT. Theories of Taxation -Benefit principle -Ability to pay principle-Sacrifice Rules—Horizontal equity and choice of tax base- Vertical equity.	6	3
	2.3	Impact and Incidence-Tax shifting-Modern Theory of Incidence-Optimal Taxation-Tax evasion and tax avoidance-Concept of excess burden.	6	3
3	<b>Budgeting and Public Debt</b>			
	3.1	Public debt-Classical versus Keynesian view-Modern theory of Public debt: Barro-Ricardo equivalence, Buchanan thesis of Intergenerational equity—Arguments of Post Keynesians and Modern Monetary Theorists. Redemption of public debt.	7	4
	3.2	Expenditure and revenue of Union and states—Public Account—Consolidated Fund of India – Budget: Deficit Concepts—Structure and composition of Public Debt—Fiscal Rules: FRBM Act.	6	4
	3.3	Fiscal Federalism- Significance, Theoretical Approaches: Decentralization theorem-Theory of Inter-governmental transfers, Principles of design of grants. Issues in Fiscal federalism-Optimal federalism-Local Finance.	6	4
4	<b>Fiscal Federalism and Public Choice</b>			
	4.1	Centre-State Financial relations in India- Constitutional Provisions: Finance Commission—Recommendations of last three Commissions—Criteria for devolution, Vertical and Horizontal equity, Principles of grants-in-aid, Cooperative federalism.	5	6
	4.2	Introduction to Public Choice: Direct versus Representative democracy. Public choice under direct democracy: Unanimity rule (Lindhal pricing, Wicksell approach)- —Majority Voting Rules—Median Voter theorem-Anthony Downs's Rational Voter Hypothesis. Problem of Collective Choice: Arrow's Impossibility Theorem.	5	5
		Representative Democracy: —Role of politicians and political parties, Logrolling and Political Manifestos—Voting and the Leviathan Hypothesis- Directly Unproductive Profit Seeking/Rent seeking Activities—Lobbying and Special Interest Groups, Social Costs.	6	5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.



**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Musgrave and Musgrave, (2017) Public Finance in Theory and Practice Mc Graw- Hill International Edition
2. Atkinson A.B. and J.E. Siglitz (2015). Lectures on Public Economics, Tata McGraw Hill Delhi
3. J.E. Siglitz (2000). Economics of the Public Sector ( Third Edition)
4. Buchaman J.M. (1970), The Public Finances, Richard D.Irwin, Homewood.
5. John Cullis, P. J. (2009). *Public Finance and Public Choice-Analytical Perspectives*. Oxford University Press.
6. Harvey Rosen, T. G. (2014). *Public Finance*. McGraw-Hill Education.
7. Boadway, R. (2012). *From Optimal Tax Theory to Tax Policy:Retrospective and Prospective Views*. The MIT Press.
8. Boadway, R. and Wildasin, R. M. (1984). *Public Sector Economics*. Boston:Little Brown.

**Additional Readings**

1. Paul A.Samuelson, 'The Pure Theory of Public Expenditure.
2. Vito Tanzi and Ludger Shuknecht, 'Public Spending in the 20<sup>th</sup> Century:A Global Perspective, Cambridge University Press.



<b>Programme</b>	<b>Applied Economics</b>						
<b>Course Name</b>	<b>Advanced Econometric Analysis</b>						
<b>Type of Course</b>	<b>DSE</b>						
<b>Course Code</b>	<b>MCE5DSEECA300</b>						
<b>Course Level</b>	<b>300-399</b>						
<b>Course Summary</b>	The course aims to expose the learner to the econometric methodology which is widely used in empirical work in Economics. It intends to capture the economic relationships in real life situations with the help of software packages (such as Gretl or R) capable of conducting econometric explorations. The course deals with advanced econometric methods and applications designed for the analysis of advanced models such as non-linear regression models, qualitative response models, dynamic econometric models, simultaneous equation models and introductory ideas of time series modelling.						
<b>Semester</b>	<b>5</b>			<b>Credits</b>			
<b>Course Details</b>	<b>Learning Approach</b>		<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	<b>Total Hours</b>
	Scaffold Learning, Hands-on Activities, Reflective Learning and Problem based Learning		<b>3</b>		<b>1</b>		

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PO No</b>
1	appreciate and interpret non-linear regression models and their estimation.	An, E & C	1, 2 & 3
2	evaluate and interpret the qualitative response regression models and their estimation.	An, E & C	2, 3 & 4
3	evaluate and interpret dynamic econometric regression models and their estimation.	An, E & C	2, 3 & 4
4	Analyse, evaluate and interpret simultaneous equation models.	An, E & C	2, 3 & 4
5	comprehend the basic ideas of time series model and stochastic process	R & U	1 & 2
6	explore the open source econometric software packages such as Gretl, R for econometric modelling	A & An	1, 2 & 3
7	explain and intuitively interpret the econometric results in plain language.	E & C	2, 3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Non-Linear Regression models Qualitative Response Models</b>			
	<b>1.1</b>	Non-linear regression models: Intrinsically linear and intrinsically non-linear models	3	1, 4 & 7
	<b>1.2</b>	Approaches to estimation on non-linear models: Direct search or trial and error—Direct optimization and Iterative linearization.	3	1, 4 & 7
	<b>1.3</b>	Qualitative Response Regression Models: Nature-Linear Probability Model, Logit, Probit, and Tobit models.	4	2, 6 & 7



	<b>Practicum</b>	Estimate, evaluate and interpret qualitative response variable models with Gretl or R	6	
2	<b>Dynamic Econometric Models</b>			
	2.1	Dynamic Econometric Models: Approaches to estimation of distributed lagged model: Ad hoc estimation, Koyck Approach.	4	3, 6 & 7
	2.2	Rationalization of Koyck Approach-Adaptive Expectations model, the Stock adjustment or Partial adjustment model. The Almon approach	4	3, 6 & 7
	2.3	Auto regressive models and their estimation—Method of Instrumental variables—SARG Test and Durbin h Statistic— Problems—SARG Test and Durbin h Statistic <sup>2</sup> Causality—Granger Causality Test—Todo-Yamamoto Procedure and Sims Test	4	3, 6 & 7
	<b>Practicum</b>	Estimate and interpret the various Dynamic Econometric Models with Gretl or R	8	
3	<b>Simultaneous Equation Models</b>			
	3.1	Simultaneous Equation Models—Simultaneous Equation Bias—Inconsistency of OLS Estimators	4	4, 6 & 7
	3.2	Identification Problem—Test of Simultaneity and Exogeneity—Interpretation— Problem of Estimation	4	4, 6 & 7
	3.3	Single Equation Methods—OLS, ILS, 2SLS and Systems Methods—Lurking Variables	4	4, 6 & 7
	<b>Practicum</b>	Estimate, evaluate and interpret the simultaneous equation models with Gretl or R	8	
4	<b>Time Series Models: Introductory Ideas</b>			
	4.1	Time Series Decomposition into Trend, Cyclical, Seasonal, Irregular Components	3	5, 6 & 7
	4.2	Stochastic Process—Ergodicity and Stationarity—White Noise Processes—Non Stationarity and Random Walk Models	4	5, 6 & 7
	4.3	Deterministic and Stochastic Trends / Trend and Difference Stationary Processes—Integrated Stochastic Process	4	5, 6 & 7
	<b>Practicum</b>	Decompose the time series into various its various components with Gretl or R Examine and interpret the stationary and non stationary series with the with Gretl or R	8	

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70



**References:**

1. Greene, W. H. (2017). *Econometric Analysis*. Pearson.
2. Gujarati, D., Porter, D. C., & Pal, M. (2020). *Basic Econometrics*. McGraw Hill.
3. Heiss, F. (2020). *Using R for Introductory Econometrics*. CreateSpace Independent Publishing Platform.
4. Johnston, J. (1985). *Econometric Methods*. John Wiley New York.
5. Kennedy, P. (2008). *A Guide to Econometrics*, . Wiley-Blackwell.
6. Pesaran, M. H. (2015). *Time Series and Panel Data Econometrics*. Oxford University Press.
7. Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data* . The MIT Press.
8. Wooldridge, J. M. (2015). *Introductory Econometrics: A Modern Approach*, Thomson, South Western.
9. Crawley, M. J. (2007). *The R Book Book*. John Wiley & Sons.

**Additional References:**

1. Bailey, M. (2016). *Real Econometrics: The Right Tools to Answer Important Questions*. Oxford University Press.
2. Baltagi, B. H. (2011). *Econometrics*. Springer.
3. Bhaumik, S. K. (2015). *Principles of Econometrics: A Modern Approach Using Views*. Oxford University Press.
4. Davidson, R., & MacKinnon, J. G. (2003). *Econometric Theory and Methods*. Oxford University Press.
5. Dougherty, C. (2007). *Introduction to Econometrics*. Oxford University Press.
6. Kmenta, J. (1976). *Elements of Econometrics*. Macmillan, New York.
7. Maddala, G. S. (2002). *Introduction to Econometrics*. John Wiley & Sons.
8. Mukherjee, C., White, H., & Wuyts, M. (1998). *Econometrics and Data Analysis for Developing Countries*. Routledge New York.
9. Pesaran, M. H., & Smith, R. (1995). The Role of Theory in Econometrics. *Journal of Econometrics* (67), 61-79.
10. Pindyck , R. S., & Rubinfeld, D. L. (1998). *Econometric Models and Economic Forecasts*. McGraw-Hill Publishing Co.
11. Ramanathan, R. (2002). *Introductory Econometrics with Applications*. Thomson Learning.
12. Stock, J. H., & Watson, M. W. (2020). *Introduction to Econometrics*. Pearson Education.
13. Studenmund, A. H. (2016). *Using Econometrics: A Practical Guide*. Pearson.
14. Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*. The MIT Press.



<b>Programme</b>	<b>BA Applied Economics</b>						
<b>Course Name</b>	<b>Game Theory</b>						
<b>Type of Course</b>	<b>DSE</b>						
<b>Course Code</b>	<b>MCE5DSEECA301</b>						
<b>Course Level</b>	<b>300-399</b>						
<b>Course Summary</b>	The main objective of this course is to critically understand the various aspects of the strategic interaction and decision making between and among economic agents. In a strategic environment, individual decisions however small are not insignificant but have important consequences upon the final outcomes and economic benefits available. The course will help the student to comprehend such situations with the theoretical construct of games.						
<b>Semester</b>	<b>5</b>			<b>Credits</b>		<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>		<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	examine strategic economic situations by representing them with the game theoretic framework		U, An & E	1 & 2
2	identify prisoner's dilemma and Nash equilibria in various real world phenomena and its application to real world conflicts.		U & A	1 & 2
3	analyse various types of games having different levels of information and to develop decision rules for selecting strategies		An, E & C	3 & 4
4	evaluate and interpret the policy making process through mechanism design and auctions		An, E & C	3 & 4
5	appraise and interpret the game theoretic predictions in strategic situations against real world outcomes		An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

## COURSE CONTENT

### Content for Classroom Transactions (Units)

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Introduction to Game Theory</b>			
	<b>1.1</b>	Strategic behaviour—Definitions: Rules of the Game: Players, Actions, Payoffs & Information—Strategies—Equilibrium—Outcome—Information Set—Information Structure of a Game: Perfect, Certain, Symmetric & Complete Information	5	1 & 5
	<b>1.2</b>	Normal and extensive forms—Prisoner's dilemma—Nash Equilibrium—One Time Games—Dominant Strategies and Equilibrium	5	1 & 5
	<b>1.3</b>	Three Player Games—Non-Dominant Strategies—Multiple Nash Equilibrium—Focal Point Equilibrium—Framing—Evolutionary Equilibrium	5	1 & 5
<b>2</b>	<b>Repeated Games and Continuous Strategies</b>			
	<b>2.1</b>	Infinitely and Finitely repeated games—Games with Certain and Uncertain Ends—Folk Theorem—End of Game Problem	5	2 & 3



		Evaluating Payoffs in Infinitely Repeated Games—Possibility of Cooperation		
	2.2	Mixing Pure Strategies—Zero Sum Games—Minimax Theorem—Mixed Strategies—Optimal Mixing Rules—Randomising Pure Strategies	5	2 & 3
	2.3	Static Games with Continuous Strategies—Reaction Functions—Shifting Reaction Functions	5	2 & 3
<b>3</b>	<b>Dynamic Games with Perfect and Imperfect Information</b>			
	3.1	Game Trees—Sub Game Perfect Equilibrium—Backward Induction—First Mover Advantage—Credible Threats—Dynamic Games with Continuous Strategies	5	2, 3 & 5
	3.2	Static Games with Uncertain Payoffs (Incomplete Information)—Harsanyi Transformation— Static Bayesian Game—Bayesian Nash Equilibrium— Dynamic Games with Uncertain Payoffs	5	2, 3 & 5
	3.3	Dynamic Games with Imperfect Information—Problem of Private Information— Information Sets—Bayesian Updating— Perfect Bayesian Equilibrium—Signaling and Spence Education Game	5	2, 3 & 5
<b>4</b>	<b>Application of Games</b>			
	4.1	Models of Oligopoly— Cournot Nash Equilibrium—Bertrand Nash Equilibrium with Homogenous and Differentiated Products—Bertrand Paradox— Dynamic Games & Stackelberg Model	5	2, 3 & 5
	4.2	Mechanism Design—Social Mechanism Design—Liability	5	4 & 5
	4.3	Auctions—Values, Bids & Prices—Bidding and Pricing Rules— Auction Models—Strategies—Nash Equilibrium with Complete and Perfect Information & Independent Private Values— Winner’s Curse—Optimal & Efficient Auctions—Revenue Equivalence Theorem: Assumptions and Proof	5	4 & 5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

- 1) Rasmusen, E. (2009). *Games and Information: An Introduction to Game Theory* (4. ed.). Blackwell.
- 2) Webster, T. J. (2009). *Introduction to Game Theory in Business and Economics*. M.E. Sharpe.

**Additional References**

- 1) Bierman, H. S., & Fernandez, L. F. (1996). *Game Theory with Economic Applications*. Addison-Wesley.
- 2) Osborne, M. J. (2017). *An Introduction to Game Theory* (South Asia edition). Oxford University Press.





<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Data Analytics with Spreadsheet Applications</b>					
<b>Type of Course</b>	<b>SEC</b>					
<b>Course Code</b>	<b>MCE5SECECA300</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	This course provides fundamental data management and analysis skills. Covering statistical methods and quantitative tools, it emphasizes hands-on applications such as data exploration, visualization, and interpretation.					
<b>Semester</b>	<b>5</b>	<b>Credits</b>			<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	<b>3</b>				<b>45</b>
<b>Pre-requisites, if any</b>	Knowledge in basic statistical and mathematical methods including measures of central tendency, dispersion, graphs, and hypotheses testing					

**COURSE OUTCOMES (CO)**

<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	Understand and change as per need the basic setting and interface of spreadsheet programmes	A, S	1, 2, 3
2	Handle text and number related formatting and cleaning of data in spreadsheet software	A, S	1, 2, 3
3	Learn to use important logical, mathematical and statistical functions required for data management and analysis	A, S	1, 2, 3
4	Visualise data in a meaningfully and efficiently in spreadsheet	A, S	1, 2, 3
5	Analyse simple data using pivot tables	A, S	1, 2, 3
<i>*Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I) and Appreciation (Ap)</i>			

**COURSE CONTENT****Content for Classroom Transactions (Units)**

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Spreadsheet Interface</b>				
<b>1</b>	<b>1.1</b>	Introduction to spreadsheet interface and features – Understanding workbooks, worksheets, rows, columns and cells	<b>3</b>	<b>1, 2</b>
	<b>1.2</b>	Page setup and printing – Toolbars and shortcuts – Options for viewing, pasting and saving – Navigating and selecting data	<b>2</b>	<b>1, 2</b>
	<b>1.3</b>	Formatting and editing cells, rows, and columns – Using basic formatting options (font, alignment, borders) – Cell and Number formats	<b>3</b>	<b>1, 2</b>
	<b>1.4</b>	Protecting cells, sheets and books	<b>2</b>	<b>1, 2</b>
<b>Handling Data and Text</b>				
<b>2</b>	<b>2.1</b>	Entering data – Fill, Flash fill – Sorting and Filtering – Data validation	<b>3</b>	<b>1, 2</b>
	<b>2.2</b>	Formulae and operators	<b>2</b>	<b>1, 2</b>
	<b>2.3</b>	Functions: Working with text (CONCATENATE, UPPER, LOWER, PROPER, LEN, LEFT, RIGHT, TRIM, CLEAN, EXACT, TEXT) – Data cleaning, duplicates	<b>2</b>	<b>1, 2, 3</b>



	<b>2.4</b>	Working with date and time (DATE, DAY, MONTH, NOW, TODAY)	<b>2</b>	<b>1, 2, 3</b>
	<b>Important Functions</b>			
	<b>3.1</b>	Using absolute and relative cell references	<b>1</b>	<b>2, 3</b>
	<b>3.2</b>	Working with functions – Important functions: Logical (IF, AND, OR, NOT)	<b>4</b>	<b>2, 3</b>
	<b>3.3</b>	Reference functions (COLUMN, ROW, VLOOKUP, HLOOKUP)	<b>2</b>	<b>2, 3</b>
<b>3</b>	<b>3.4</b>	Statistical and mathematical functions (SUM, SUMIF, ROUND, ROUNDDUP, ROUNDDOWN, INT, FACT, LN, LOG, POWER, PRODUCT, SUMPRODUCT, SQRT, COUNT, COUNTA, COUNTBLANK, COUNTIF, AVERAGE, VAR, STDEV, FREQUENCY, GEOMEAN, HARMEAN, MAX, MIN, MEDIAN, MODE, CORREL)	<b>7</b>	<b>2, 3</b>
	<b>Data Visualisation and Analysis</b>			
	<b>4.1</b>	Introduction to charts – Parts of a chart: Elements, Legend, Axis	<b>2</b>	<b>4, 5</b>
	<b>4.2</b>	Design and layout – bar, line, pie, scatter	<b>2</b>	<b>4, 5</b>
<b>4</b>	<b>4.3</b>	Using conditional formatting for data visualisation	<b>2</b>	<b>4, 5</b>
	<b>4.4</b>	Introducing pivot tables and pivot charts	<b>3</b>	<b>4, 5</b>
	<b>4.5</b>	Analysis ToolPak: Frequency distributions, ANOVA, Correlation, Random Number Generation, t-test, chi-square test, Regression	<b>3</b>	<b>4, 5</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

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**Syllabus - Semester VI**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE6DSCECA300	Indian Economy: Analytical Issues	DSC
MCE6DSEECA300	Behavioural Economics and Social Preferences	DSE
MCE6DSEECA301	General Equilibrium and Welfare Economics	DSE
MCE6DSEECA302	Research Methodology in Applied Economics	DSE
MCE6SECECA300	R Programming for Economic Analysis	SEC
MCE6VACECA300	Heterodox Approach to Economic Theory	VAC



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Indian Economy: Analytical Issues</b>					
<b>Type of Course</b>	<b>DSC</b>					
<b>Course Code</b>	<b>MCE6DSCECA300</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	The course offers a comprehensive examination of the economic dynamics, challenges, and policy interventions shaping India's economic landscape. It will enable the learner to delve deep into a wide range of analytical approaches, empirical evidence, and theoretical perspectives to understand the complexities of the Indian economy.					
<b>Semester</b>	<b>6</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative and Case-Based Learning	<b>3</b>		<b>1</b>		<b>75</b>

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	gain a deep understanding of the analytical frameworks and tools used to assess various aspects of the Indian economy, including its macroeconomic performance, sectoral dynamics, and policy challenges.	U & C	1
2	acquire insights with a view to interpret the unique characteristics, challenges, and opportunities present in key sectors of the Indian economy such as agriculture, industry, services, and the informal sector.	U & C	2
3	develop the ability to critically analyse data, trends, and policies shaping the Indian economy, allowing for informed assessments and recommendations.	An & E	3
4	evaluate the effectiveness of economic policies and reforms, considering their impact on different segments of society, regional disparities, and long-term sustainability.	U, E & C	4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Module 1 - Agricultural Sector Analysis</b>			
	<b>1.1</b>	Overview of Indian Agriculture: Importance, Contribution to GDP, and Employment	3	<b>1,2</b>
	<b>1.2</b>	Land Reforms and Land Tenure Systems	3	<b>1,2</b>
	<b>1.3</b>	Agricultural Productivity: Factors, Trends, and Regional Disparities	3	<b>1,2,3</b>
	<b>1.4</b>	Crop Diversification and Crop Insurance Schemes	3	<b>1,2</b>
	<b>1.5</b>	Agricultural Marketing: APMC Act, Market Infrastructure, and Price Support Mechanisms	3	<b>1,2</b>
	<b>Practicum</b>	Discussion on APMC Act, Agrarian Distress and Challenges in Agriculture	<b>3</b>	<b>1,2</b>
<b>2</b>	<b>Module 2 - Industrial Sector Analysis</b>			
	<b>2.1</b>	Industrial Policy Resolutions: 1948, 1956, 1977 and 1980	3	<b>2</b>
	<b>2.2</b>	Industrial Policy Reforms: First and Second Waves of Liberalization	3	<b>2,3</b>



	<b>2.3</b>	Manufacturing Sector: Growth Trends, Challenges, and Competitiveness	3	<b>2,3,4</b>
	<b>2.4</b>	Small Scale and Cottage Industries: Role, Issues, and Government Support	3	<b>2</b>
	<b>2.5</b>	Technology and Innovation: R&D Expenditure, Patents, and Innovation Ecosystem	3	<b>2</b>
	<b>Practicum</b>	Seminar on Industrial Policy Reforms, National Manufacturing Policy and Make in India	<b>3</b>	<b>2,3,4</b>
<b>3</b>	<b>Module 3 - Service Sector Analysis</b>			
	<b>3.1</b>	Role of Service Sector in Indian Economy: Growth Drivers and Employment Generation	3	<b>1</b>
	<b>3.2</b>	Trade, Hotels and Restaurants: Contribution to National Income and Employment and FDI inflows	3	<b>2</b>
	<b>3.3</b>	Transport, Storage and Communication: Growth Potential and Challenges	3	<b>2,3,4</b>
	<b>3.4</b>	Financing, Insurance, Real Estate and Business Services: Share in National Income and Employment	3	<b>2</b>
	<b>3.5</b>	Community, Social and Personal Services: Public Administration and Defence, Healthcare and Education Services - Accessibility, Quality, and Government Initiatives	3	<b>3,4</b>
	<b>Practicum</b>	Classroom Discussion on the role of service sector in Indian economy	<b>4</b>	<b>2,3,4</b>
<b>4</b>	<b>Module 4 - International Trade and External Sector Analysis</b>			
	<b>4.1</b>	India's Trade Performance: Export Trends, Import Composition, and Trade Deficit	3	<b>3</b>
	<b>4.2</b>	Trade Policy Framework: Export Promotion Schemes, Import Substitution, and Trade Agreements	3	<b>1</b>
	<b>4.3</b>	Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI)	3	<b>1</b>
	<b>4.4</b>	Balance of Payments Analysis: Current Account Dynamics and Capital Flows	3	<b>3</b>
	<b>4.5</b>	Exchange Rate Regime: Determinants, Management, and Impact on Trade and Investment	3	<b>3,4</b>
	<b>Practicum</b>	Assignment on India's Trade Policy, Economic Survey Discussion	<b>5</b>	<b>3,4</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

- Basu, K., & Maertens, A. (Eds.). (2012). *The New Oxford Companion to Economics in India*. Oxford University Press.
- Chandra, B. (1991). Colonial India: British versus Indian Views of Development. *Review*



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3. Goyal, A. (Ed.). (2019). *A Concise Handbook of the Indian Economy in the 21st Century* (Second edition). Oxford University Press.
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1. Ahluwalia, I.J. (1985). *Industrial Growth in India: Stagnation Since the Mid-Sixties*. New Delhi, India: Oxford University Press
2. Ahluwalia, I.J. and Little, I.M.D. (Eds.). (2012). *India's Economic Reforms and Development: Essays in Honour of Manmohan Singh*. New Delhi, India: Oxford University Press
3. Appu, P.S. (1996). *Land Reforms in India: A Survey of Policy, Legislation and Implementation*. New Delhi, India: Vikas Publishing House
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10. Chelliah, R.J. and Sudarshan, R. (1999). *Income-Poverty and Beyond: Human Development in India*. New Delhi, India: Social Science Press
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16. Rao, C.H.H. (2006). *Agriculture, Food Security Poverty and Environment: Essays On Post-Reform India*. New Delhi, India: Oxford University Press
17. Subramanian, S. (Ed.). (1997). *Measurement of Inequality and Poverty*. New Delhi, India: Oxford University Press
18. Williamson, O.E. (1985). *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York, The United States of America: Free Press.
19. World Bank. (2006). *Re-Energising the Agriculture Sector to Sustain Growth and Reduce Poverty*. New Delhi, India: Oxford University Press



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Behavioural Economics and Social Preference</b>					
<b>Type of Course</b>	<b>DSE</b>					
<b>Course Code</b>	<b>MCE6DSEECA300</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	This course intends to explain the economic decision-making process from the perspective of cognitive psychology and help students to understand and analyze the decision-making process in real life situations by emphasizing the conceptual, mathematical as well as the practical implications of various psychological pitfalls that may indirectly influence their decision-making.					
<b>Semester</b>	<b>6</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>	Fundamentals of microeconomics.					

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	To understand the historical roots, current directions and debates in Behavioural Economics	Understand	1, 2
2	To analyze the consumer purchasing decisions using theory and real-life examples	Analyze	1, 2, 3, 4
3	To examine the role of information and uncertainty, and the role of social preferences like trust, fairness, altruism in the individual decision-making process.	Analyze	1,2,3,4
4	To analyze the decision-making under risk and uncertainty with theoretical and mathematical modelling.	Analyze	1,2,3,4
5	To understand the agenda and outlook of Behavioural Economics as a means to further the scope of the subject	Understand	1,2, 3

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Introduction to Behavioural Economics</b>			
	<b>1.1</b>	Meaning, evolution of behavioural economics- recent trends and controversies	<b>3</b>	<b>1, 5</b>
	<b>1.2</b>	Rational choice theory and rational modelling - rationality and demand curves- Bounded rationality and model types	<b>4</b>	<b>1, 5</b>
	<b>1.3</b>	Special relationship between behavioural economics and experimental economics, evolutionary biology, evolutionary economics, cognitive neuroscience	<b>2</b>	<b>1</b>
	<b>Practicum</b>	Guided classroom assignment on the dual cognitive systems: System 1 and System 2 with real life examples.	<b>2</b>	<b>1, 5</b>
<b>2</b>	<b>Consumer Purchasing Decisions</b>			
	<b>2.1</b>	Transaction utility and consumer pricing: Rational choice with fixed and marginal cost- fixed versus sunk cost- sunk cost fallacy- flat rate	<b>4</b>	<b>2</b>





		bias - theory of reference-dependent preferences – rational explanations and basic derivations.		
	2.2	Rational choice with income from varying sources – Mental accounting: payment decoupling, pre-purchase and credit card purchasing- investments opening and closing accounts. Rational choice over time – rational explanation for source-based consumption and application.	3	2
	2.3	Status quo: rational choice and default option- Preference formation, framing and default option- Reference points, indifference curves, and the consumer problem. Loss aversion and the endowment effect.	3	2
	<b>Practicum</b>	Classroom discussion about Dr. Richard Thaler (2017 Nobel Laureate), his major contribution to Behavioural Economics.	2	2, 5
	<b>Information Uncertainty and Social Preferences</b>			
	3.1	Multiple rational choice with certainty and uncertainty- The portfolio problem- Narrow versus broad bracketing.	3	3
	3.2	Heuristics- Representativeness: conjunction bias-the law of small numbers- the hot hand and gambler's fallacy- Availability heuristic- Anchoring and adjusting- Confirmation and overconfidence.	4	3
	3.3	Social preferences in decision making: Selfishness – Altruism- Fairness - Trust- Reciprocity and decisions- reciprocity as distinct from fairness: examples and derivations.	4	3
	<b>Practicum</b>	Conduct a classroom survey on heuristics/biases discussed in Module 2 and 3, and examine the findings.	2	3, 5
	<b>Decision under risk and uncertainty</b>			
	4.1	Rational decision under risk- Modelling intransitive preferences: regret and similarity – Independence and rational utility under risk- Allais' paradox.	4	4
	4.2	Allowing violation of independence - The shape of indifference curve- Probability weights- Practical implication of violation of expected utility- The Ellsberg paradox.	4	4
	4.3	Prospect Theory- indifference curve and Prospect theory- Criticisms	3	4, 5
	<b>Practicum</b>	Classroom reading and discussion of the paper titled Judgment under uncertainty: Heuristics and Biases (1973) by Amos Tversky and Daniel Kahneman.	2	4, 5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

Components of CIA
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**Reference**

1. Anger, E., & Loewenstein, G. (2007). Behavioural Economics. *Handbook of the Philosophy of Science: Philosophy of Economics*, 641-690.



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**Additional Reference**

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<b>Programme</b>	<b>BA Applied Economics</b>						
<b>Course Name</b>	<b>General Equilibrium and Welfare Economics</b>						
<b>Type of Course</b>	<b>DSE</b>						
<b>Course Code</b>	<b>MCE6DSEECA301</b>						
<b>Course Level</b>	<b>300-399</b>						
<b>Course Summary</b>	The course is expected to expose the student to critically appreciate the problem of whether the independent decision making of economic agents in a competitive environment would lead to equilibrium to all. It would explore the interdependence among the constituent parts of an economic system and evaluate the alternative economic situations from the viewpoint of social welfare.						
<b>Semester</b>	<b>6</b>			<b>Credits</b>		<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>		<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction		<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	employ the simple general equilibrium model to appreciate the positive economic questions posed from the viewpoint of economy as a whole.		U, A & E	1 & 2
2	Appreciate and interpret the complexity of the real world with respect to the economic activities of the mutually interdependent economic agents.		E & C	1 & 2
3	identify and critically analyse the various criteria used to deal with the normative questions regarding the evaluation of different economic situations.		U, A & An	3 & 4
4	Evaluate and interpret the conditions that lead to the highest possible levels of social welfare in an economy.		E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

**COURSE CONTENT****Content for Classroom Transactions (Units)**

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Simple General Equilibrium Model (2 x 2 x 2)</b>			
	<b>1.1</b>	Introduction to General Equilibrium—Interdependence in the Economy—Walrasian System—Existence, Uniqueness and Stability of an Equilibrium	4	1 & 2
	<b>1.2</b>	Graphical Representation of General Equilibrium—Static Properties of General Equilibrium	2	1 & 2
	<b>1.3</b>	General Equilibrium and Allocation of Resources—Prices of Commodities and Factors—Factor Ownership and Income Distribution	8	1 & 2
<b>2</b>	<b>General Equilibrium and H x M x N Model</b>			
	<b>2.1</b>	General Equilibrium—Extension of General Equilibrium Model: Any Number of Household, Commodities and Factor of Production —Redundant Equation—Proof	8	2, 3 & 4



	2.2	Money and General Equilibrium—Patinikin's System—Keynesian Counter Revolution	5	2, 3 & 4
	2.3	Arrow –Debreu Model (Without Formal Proof) —First and Second Fundamental Theorems of Welfare Economics—Efficiency-Equity Trade-off	5	2, 3 & 4
	<b>Welfare Economics</b>			
3	3.1	Criteria of Social Welfare—Growth of GNP as a Welfare Criterion—Bentham's Criterion—Cardinalist Criterion—Pareto Optimality Criterion—Kaldor Hicks Compensation Criterion—Bergson Criterion & Social Welfare Function	6	3 & 4
	3.2	Maximization of Social Welfare—Derivation of Grand Utility Possibility Frontier—Determination of the Welfare Maximizing State—Determination of the Welfare Maximizing Output Mix, Commodity Distribution and Resource Allocation—Welfare Maximization and Perfect Competition	8	3 & 4
	3.3	Critique and Extension—Corner Solution—Existence of Community Indifference Curve—Factor Elasticity—Joint and Intermediate Products—Externality in Production & Consumption—Decreasing & Increasing Returns to Scale—Kinked Isoquants—Convex Isoquants—Indivisibilities—Arrow' Social Welfare Function & Impossibility Theorem	8	3 & 4
	<b>Review of General Equilibrium</b>			
4	4.1	Critical Aspects of General Equilibrium—Anything Goes: Sonnenschein–Mantel–Debreu Theorem (without formal proof)	3	3 & 4
	4.2	Limits of General Equilibrium Theory—Explanations for the Failure—Alternatives of General Equilibrium	3	3 & 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

- 1) Ackerman, F., & Nadal, A. (Eds.). (2012). *The Flawed Foundations of General Equilibrium: Critical Essays on Economic Theory*. Routledge.
- 2) Koutsoyiannis, A. (1996). *Modern Microeconomics* (2. ed.). MacMillan.
- 3) Nicholson, W., & Snyder, C. (2017). *Microeconomic Theory: Basic Principles and Extensions* (Twelfth Edition). Cengage Learning.

**Additional References**

- 1) da Costa, G. C. (2001). *Value and Distribution in Neoclassical and Classical Systems* (2 ed.). Himalaya Publishing House.
- 2) Mas-Colell, A., Whinston, M. D., & Green, J. R. (1995). *Microeconomic Theory*. Oxford University Press.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Research Methodology in Applied Economics</b>					
<b>Type of Course</b>	<b>DSE</b>					
<b>Course Code</b>	<b>MCE6DSEECA302</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	This course intends to provide an in-depth understanding of the methods and approaches in research methodology. This helps students to identify research problems, do review of literature, and to proceed in the process of research with sound and latest understanding. This course equips students to understand the various kinds of research, objectives of doing research, research process, research designs and sampling, secure basic knowledge of qualitative research techniques.					
<b>Semester</b>	<b>6</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>	A basic understanding of various theories in economics in order to facilitate the explanation of how theories have been evolved in Economics thanks to the research works of Economists. A basic knowledge about the descriptive and inferential statistics.					

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	To understand the basics of research and the research process.		R & U	1
2	To conduct research work and formulate research synopsis and frame research report.		A	2
3	To collect and analyze data for a research work.		An	3
4	To evaluate the existing works and create new projects based on research issues.		E & C	2
5	To understand qualitative research methods		U	4
6	To create and prepare research proposals, and research report		C	4
* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)				

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Module I: An Introduction to Research Methodology</b>				
<b>1</b>	<b>1.1</b>	Meaning and definition of research, Criteria of a good research, Social Research -Business Research	3	1
	<b>1.2</b>	Theory and Research-Conceptual Framework in Research-Philosophical Foundations of Research- Positivism-Normativism-Pragmatism-Empiricism- Deduction and Induction	5	2
	<b>1.3</b>	Approaches in Research: Multidisciplinary, interdisciplinary, and trans- disciplinary	5	1



	<b>1.4</b>	The meaning of method and methodology- Classification of research (pure, applied, exploratory, descriptive, historical, diagnostic, experimental, qualitative, quantitative)	5	3
	<b>Practicum</b>	1. Discussion –discusses the importance of business research 2. Seminar-Use of research methods in social science	5	3
	<b>Research Design</b>			
<b>2</b>	<b>2.1</b>	Different steps in research process-selection of the topic-formulation of the research problem in Economics with illustrations	5	1
	<b>2.2</b>	Narrowing a Topic into Research Question-Six Step Literature review Process-Purpose of Literature Survey-Writing the Literature Review	5	3
	<b>2.3</b>	Research design, features of a good design-different research designs for exploratory, descriptive, diagnostic and experimental research	3	4
	<b>Practicum</b>	1. Group Discussion on choosing research problems in Economics 2. Seminar on Research Designs	5	4
	<b>Data Collection</b>			
<b>3</b>	<b>3.1</b>	Sources of data - Primary data, Secondary data, Methods of Data Collection - Observation, Experimentation, Survey	3	5
	<b>3.2</b>	Tools for Data Collection – Schedule: Meaning, Purpose, Type, Format and Layout, Questionnaire: Guidelines, Contents	5	5
	<b>3.3</b>	Forms of Questionnaire, Advantages, and Limitations, Guidelines for a good Interview, Limitations of Interview techniques	3	6
	<b>Practicum</b>	1. Discussion on different sources of Secondary data. 2. Demonstration on Interview Technique	5	5,6
	<b>Sampling and Analysis</b>			
<b>4</b>	<b>4.1</b>	Sampling and Sample Design - Meaning of Sample, Sampling Process, Sampling Methods-Essentials of good sampling- Sample size	5	3
	<b>4.2</b>	Qualitative Methods-Focus Group Discussion- Caste Study Method	4	2
	<b>4.3</b>	Content Analysis-Discourse Analysis-Interpretive Analysis-Grounded Theory	4	1
	<b>Practicum</b>	1. Debate on the use of Qualitative Methods 2. Seminar on Sampling Methods	5	3

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20



Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Bagchi, K. (2007). *Research Methodology in Social Sciences: A Practical Guide*. Delhi: Delhi, Abijeet Publications.
2. Cooper, R., & Pamela, S. (2003). *Business Research Methods*. Delhi: Tata McGraw-Hill.
3. Goode, W. J., & Hatt, P. K. (1952). *Methods in Social Research*. New York: McGraw – Hill.
4. Kothari, C. R. (2004). *Research Methodology: An Introduction*. New Delhi: New Age.
5. Kumar, R. (2009). *Research Methodology: A Step by Step Guide for Research*. Delhi: Pearson Education.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>R Programming for Economic Analysis</b>					
<b>Type of Course</b>	<b>SEC</b>					
<b>Course Code</b>	<b>MCE6SECECA300</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	The course aims to equip the learner with the essential skills required for handling, summarising and analysing primary and secondary data with a view to exploring the interconnectedness between variables for unearthing relationships, behavioural patterns, trends and casual influences with the analytical armory available in the programming environment of R software package. The course also attempts to enable the learner to explore various secondary databases including unit level data related to the economy. The discussion will focus upon the intuitive and graphical representation of relevant relationships with ggplot2 and enlighten the learner to interpret and communicate the finding in plain language as well.					
<b>Semester</b>	<b>6</b>	<b>Credits</b>			<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	<b>45</b>
	Hands-on Activities, Simulations, Scaffold Learning, and Reflective Learning	<b>3</b>				

<b>COURSE OUTCOMES (CO)</b>				
<b>CO No</b>	<b>Expected Course Outcome</b>		<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>			
1	apply the various libraries and packages in R environment for handling and summarising various types of data		U, A & An	1, 2 & 3
2	carryout the various procedures and implement the various tools and techniques meant for generating frequency tables, descriptives and inferential statistics		U, A & An	1, 2 & 3
3	use the ggplot2 package available R for data visualisation and reporting the finding of the analysis in an intuitive and professional manner		U, A & An	1, 2 & 3

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>					
<b>Content for Classroom Transactions (Units)</b>					
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>	
<b>1</b>	<b>Data Management in R</b>				
	<b>1.1</b>	R from S: Overview—R Environment: R Console—Command Line versus Scripts—R Editor—R Studio—Working Directory—Missing data		2	1 & 2
	<b>1.2</b>	R Commands, Objects & Functions—User-Defined Functions—R Structures: Vectors, Matrices, Factors, Lists, Lists and Statistics, Data Frames—Packages & Libraries, Tidyverse—R Formulas—Concatenating & Combing Data		3	1 & 2
	<b>1.3</b>	Data Management: Creating & Accessing Variables—Structure (str)—Data Argument and \$ sign, Attach & Detach Functions—Subsets of Data—Case Selection & Conditional		1	1 & 2





		Selection—Sorting, Ranking, Ordering & Complex Ordering with Mixed Directions—Recoding—Conditional calculations		
		1) Reading and Writing: Spreadsheets, CSV files, Text files & from other Statistical Packages 2) Extraction of Unit level data from the databases of NSSO and ASI 3) Generating Frequency Tables 4) Combining and restructuring data frames: Append, Merge & Reshape Dataframes 5) Trimming Vectors—Logical Arithmetic—Writing functions in R—Dates in Dataframes 6) Generating Random Numbers 7) Generate frequency tables, descriptive statistics	10	
2	<b>Frequencies, Descriptives and Inferential Statistics</b>			
	2.1	Exploring Assumptions for Inferential Statistics: Normality: Descriptive Statistics	2	2 & 3
	2.2	One Way ANOVA: Robust Statistic	1	2 & 3
	2.3	Regression Modelling—Regression Diagnostics & Model Adequacy	1	2 & 3
		1) Kolmogorov–Smirnov & Shapiro–Wilk Tests—Homogeneity of Variance: Levene’s Test, Hartley’s Fmax & Variance Ratio Test—Outliers & Data Transformation 2) Cross tabulations, Chi-square Test & Odds Ratio Inferential Statistics: Z, t test: One Sample & Two Sample (Paired & Unpaired), 3) Post Hoc Tests—Two Way ANOVA, ANCOVA 4) Correlation: Parametric & Non-Parametric 5) Conduct test for Heteroscedasticity, Autocorrelation, Multicollinearity & Model Specification	10	
3	<b>Data Visualisation with ggplot2</b>			
	3.1	ggplot2—quick plot function—esthetic attributes—faceting—	2	2 & 3
	3.2	layer approach in ggplot—Components of layered grammar—layer by layer plots—Scales—The coordinate system—Faceting: Grid faceting, Wrap faceting	2	2 & 3
	3.3	Components of layered grammar—Aesthetic mapping—Geometric Attributes—statistical transformation—Position adjustment	1	2 & 3
		Generate graphing distributions: a) Histograms and density plots, Bar charts, Boxplots, Scatterplots b) Scatter Plot Matrix c) Time series plots, Bubble charts and dot plots	10	

### Mode of Assessment

#### A. Continuous Internal Assessment (CIA) – Maximum Mark: 25

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.



**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

- 1) Crawley, M. J. (2012). *Statistics: An Introduction Using R*. Wiley.
- 2) Davies, T. M. (2016). *The Book of R: A First Course in Programming and Statistics*. No Starch Press.
- 3) De Vries, A., & Meys, J. (2012). *R for Dummies*. Wiley.
- 4) Schmuller, J. (2017). *Statistical Analysis with R for Dummies*. John Wiley & Sons, Inc.
- 5) Zuur, A. F., Ieno, E. N., & Meesters, E. H. W. G. (2010). *A Beginner's Guide to R*. Springer.

**Additional References**

- 1) Field, A., Miles, J., & Field, Z. (2014). *Discovering Statistics Using R*. Sage.
- 2) Colonescu, C. (2018). *Using R for Principles of Econometrics* (Second edition). MacEwan University.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Heterodox Approach to Economic Theory</b>					
<b>Type of Course</b>	<b>VAC</b>					
<b>Course Code</b>	<b>MCE6VACECA300</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	The cross-fertilization of ideas is creating a new generation of scholarship that resulted in the emergence of pluralistic ideas with respect to the ever evolving economic phenomena for having a better understanding of real world issues. That said, the aim of this course is to revisit the mainstream views on economic concepts and ideas with a view to furnishing the learner with a comprehensive yet critical understanding of economic issues.					
<b>Semester</b>	<b>6</b>	<b>Credits</b>			<b>3</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	understand and appreciate the methodology and theory of heterodox approaches in Economics	R, U & E	1 & 2
2	analyse the heterodox approaches by focussing upon the underlying the theoretical presuppositions of heterodox economics	R, U & An	2 & 3
3	assess the heterodox view of the economy and argue the social provisioning process & accumulation regimes	U, E & C	2, 3 & 4
4	illustrate the value, production and distribution taking place in the economy from the view of heterodox approach and interpret the implications for developing incisive insights into the functioning of the economy	An, E & C	3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>Module 1: Heterodox Approaches: The Presuppositions</b>				
<b>1</b>	<b>1.1</b>	Heterodox and Orthodox Economics—Paradigm Blindness	3	1 & 2
	<b>1.2</b>	Heterodox Economics: Nature, Characteristic and Features—Methodology and Theory—Evolution of Heterodox Economics	3	1 & 2
	<b>1.3</b>	Presuppositions: Epistemology/Ontology, Rationality, Focus of Analysis, Economic Core and Political Core	4	1 & 2
<b>2</b>	<b>Module 2: Heterodox View of the Economy</b>			



	2.1	Classical Political Economy, Neoclassical Economics, and Heterodox Economics	4	1, 2 & 3
	2.2	Social provisioning process—Classical social surplus approach—Neoclassical social surplus approach	4	1, 2 & 3
	2.3	Cambridge controversies in the theory of capital, Inequality, welfare, and economic performance—Kalecki–Keynes–Sraffa synthesis	6	1, 2 & 3
	2.4	Accumulation in Old Institutional Approaches—Contemporary Theoretical Approaches— Evolution and Diversity of Accumulation Regimes	5	1, 2 & 3
	<b>Module 3: Value, Production and Distribution</b>			
3	3.1	Monetary theories of production—Capitalism as a monetary circuit—Stock-Flow Consistent Approach to Macroeconomics (SFCA)—Financialization	8	1, 2 & 4
	3.2	The principle of effective demand—Marx, Kalecki, and Keynes—Long run principle of effective demand	4	1, 2 & 4
	3.3	Heterodox theories of value—Adam Smith, Ricardo, Marx and Sraffa	4	1, 2 & 4

**Mode of Assessment****A. Continuous Internal Assessment (CIA) – Maximum Mark: 25**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – Maximum Mark: 50**

<b>Time: 1½ hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	6 out of 10	6 x 5 = 30
<b>Maximum Mark for ESE</b>			<b>50</b>

**References**

- 1) Jo, T.-H., Chester, L., & D'Ippoliti, C. (Eds.). (2019). *The Routledge Handbook of Heterodox Economics: Theorizing, Analyzing, and Transforming Capitalism*. Routledge, Taylor & Francis Group.
- 2) Lavoie, M. (2015). *Post-Keynesian Economics: New Foundations*. Elgar.
- 3) Lee, F. S. (2009). *A History of Heterodox Economics: Challenging the Mainstream in the Twentieth Century*. Routledge.

**Additional References**

- 1) Dequech, D. (2007). Neoclassical, Mainstream, Orthodox, and Heterodox Economics. *Journal of Post Keynesian Economics*, 30(2), 279–302.
- 2) Harvey, J. T., & Garnett, R. F. (Eds.). (2008). *Future Directions for Heterodox Economics*. University of Michigan Press.
- 3) Meijer, G. (2006). *Heterodox Views on Economics and the Economy of the Global Society*. Wageningen Academic Publishers.



**Syllabus - Semester VII**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE7DCCECA400	Advanced Microeconomics	DCC
MCE7DCCECA401	Advanced Macroeconomics	DCC
MCE7DCCECA402	Time Series and Panel Data Econometrics	DCC
MCE7DCEECA400	Money and Banking	DCE
MCE7DCEECA401	Health Economics	DCE
MCE7DCEECA402	Indian Financial System and Financial Markets	DCE



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Advanced Microeconomics</b>					
<b>Type of Course</b>	<b>DCC</b>					
<b>Course Code</b>	<b>MCE7DCCECA400</b>					
<b>Course Level</b>	<b>400-499</b>					
<b>Course Summary</b>	The purpose of this course is to provide students with a solid understanding of modern Microeconomic theory. The course presents a rigorous treatment of the principles governing individual consumer behaviour, production function and factor pricing distribution and market failure through formal approach. The end of this course is to equip the students themselves in a comprehensive manner with the multiple facets of modern Microeconomic theory and the applications of theories in analyzing current economic problems and to develop the ability to synthesize knowledge.					
<b>Semester</b>	<b>7</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative and Case-Based Learning	<b>3</b>		<b>1</b>		<b>75</b>

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	develop an in-depth understanding of concepts and theories of advanced microeconomics	U, E & C	1 & 2
2	to apply microeconomic theories to solve real life problems	U & A	2 & 3
3	to analyse and interpret existing policies, programmes and interventions of the government	An, E & C	3 & 4

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Modern developments in Consumer Theory</b>			
	<b>1.1</b>	Pragmatic approach to demand function; Constant Elasticity demand function-Dynamic Versions of Demand Function; Nerlove, Houthakker and Taylor-Linear expenditure system	<b>4</b>	<b>1</b>
	<b>1.2</b>	Hicksian revision of demand theory- Consumer choices involving risk, uncertainty, Time and Characteristics; Bernoulli, Neumann and Morgenstern theory, Friedman and Savage hypothesis, Markowitz hypothesis	<b>4</b>	<b>1</b>
	<b>1.3</b>	Characteristics model of Kelvin Lancaster- Household Time Allocation model of Garry S. Becker-	<b>3</b>	<b>1</b>
	<b>Practicum</b>	Discussion of consumer choices involving risk, uncertainty, time and characteristics by listing out cases from real world experiences.	<b>8</b>	<b>2,3</b>
<b>2</b>	<b>Theory of Production and Costs</b>			
	<b>2.1</b>	Production functions: Homogeneous and non-homogeneous production function	<b>2</b>	<b>1</b>
	<b>2.2</b>	Empirical production functions; CES Production Function—Variable Elasticity of Substitution (VES) Production Function--	<b>4</b>	<b>1</b>
	<b>2.3</b>	Homothetic Production Function—Translog production function	<b>4</b>	<b>1</b>



	<b>Practicum</b>	Derive and discuss the result that Cobb-Douglas production function is a special case of Constant Elasticity of Substitution (CES) production function	6	2,3
3	<b>Alternative Theories of Firm</b>			
	3.1	Hall and Hitch Report and Full Cost Pricing -Gordon's attack on Marginalism- Theory of Limit Pricing: J S Bain, Sylos Labini and Modigliani	4	1
	3.2	Managerial Theories of firm ; W J Baumol- O Williamson – Marris- Behavioural theories; March and Cyert-Contestable Market Theory by W.J. Baumol	4	1
	3.3	Nature of the firm and boundaries of the firm (Ronald Coase)- Transaction cost approach of Williamson -Team production approach by Armen Alchian and Harold Demsetz-Hierarchical structure of the firm(Unitary form firm, Multidivisional form firm and Mixed U/M form firm)	4	1
	<b>Practicum</b>	Derivation of Modigliani's limit price model and discussion of Bains's and Modiglian's model with examples	8	2,3
4	<b>Theory of Distribution, Asymmetric Information</b>			
	4.1	Factor Pricing: Factor pricing in perfectly competitive markets- imperfectly competitive market: Monopoly-Monopsony- Bilateral Monopoly- Marginal productivity theory and product exhaustion problem: Euler's Theorem	4	1
	4.2	Macro theories of distribution -Ricardo-Marx- neoclassical - Kalecki – Kaldor	4	1
	4.3	Markets with asymmetric information- Principal agent problem-market for lemons -moral hazard-adverse selection-market signaling.	4	1
	<b>Practicum</b>	Discuss the problem of asymmetric information with numerical examples Discuss the application of principal –agent problem in the context public choice	8	2,3

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. A. Koutsoyiannis (1985): Modern Microeconomics, 2nd Ed, MacMillan Education (Reprint).
2. Christopher Snyder, Walter Nicholson and Robert Stewart (2015): Microeconomic Theory: Basic Principles and Extensions, Cengage Learning.
3. Genaro C. da Costa (2005): Value and Distribution in Neoclassical and Classical System, 2nd Ed, Himalaya Publishers, Mumbai.



4. Geoffrey A. Jehle and Philip J. Reny (2014): Advanced Microeconomic Theory 3<sup>rd</sup> Ed, Prentice Hall.
5. Jeffrey M. Perloff (2016): Microeconomics with Calculus, 3rd Ed, Pearson.
6. Hal R. Varian (2014): Intermediate Microeconomics with Calculus, 1st Ed, W. W. Norton & Company.
7. Moschandreas Maria. (1999), Business Economics (2<sup>nd</sup> Economics), Cengage Learning, EMEA, United Kingdom
8. Hugh Gravelle and Ray Rees, Microeconomics, 3rd Edition, Pearson Education, 2008.

**Additional References**

1. Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green (2005): Microeconomic Theory, OUP.
2. Austan Goolsbee, Steven Levitt and Chad Syverson (2013): Microeconomics, Worth Publishers
3. B. Douglas Bernheim and Michael D. Whinston (2016): Microeconomics, McGrawHill
4. David Besanko and Ronald R. Braeutigam (2014): Microeconomics, 4th Ed, John Wiley and Sons, Inc.
5. Henderson, M. and R.E. Quandt (1989): Microeconomic Theory: Mathematical Approach, 3rd Ed, McGraw Hill.
6. Judy A. Whitehead (2015): Microeconomic: A Global Text, Routledge.
7. Mike Rosser (2011): Microeconomics: The Firm and the Market Economy, MacMillan
8. Robert Awh (2001): Microeconomics, John Wiley.
9. Robin Bade and Michael Parkin (2017): Foundations of Microeconomics, 7th Ed, Pearson.
10. Saul Estrin, David Laidler and Michael Dietrich (2016): Microeconomics, 5th Ed, Prentice Hall.
11. Steven E. Landsburg (2017): Price Theory and Applications, 8th Ed. Cengage Learning.
12. Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus 1st Edition, South Western Cengage Learning.
13. William A. McEachern (2017): Principles of Microeconomics, 4th Ed, Cengage Learning.
14. Mas-Colell A, Whinston M and J. Green (2012): Microeconomic Theory, Oxford University Press.
15. David M. Kreps, (1990) A Course in Microeconomic Theory, Princeton University Press.
16. Broadway, R. W and N. Bruce (1984), Welfare Economics, Basil Blackwell, Oxford
17. Gibbons, R. (1992): Game Theory for applied economists, Princeton University Press.
18. Salvatore, Dominick, (2017). Microeconomics Theory and Applications, OUP Catalogue, Oxford University Press, edition 5.





<b>Programme</b>	<b>Applied Economics</b>			
<b>Course Name</b>	<b>Advanced Macroeconomics</b>			
<b>Type of Course</b>	<b>DCC</b>			
<b>Course Code</b>	<b>MCE7DCCECA401</b>			
<b>Course Level</b>	<b>400-499</b>			
<b>Course Summary</b>	The attempts to expose the learner to comprehend critically, the major tenets of Monetarism, the theoretical relevance of Disequilibrium models and contributions of new classical Macroeconomics. The course will thrash the theoretical contributions of real business school with a view to developing a perspective and critical understanding of its far reaching implications upon policy choices. Besides, it aims to appreciate the new Keynesian macroeconomic theories and their theoretical implications in its historical setting.			
<b>Semester</b>	<b>7</b>	<b>Credits</b>		<b>4</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>
	Cognitive Learning	<b>4</b>		
				<b>Others</b>
				<b>Total Hours</b>
				<b>60</b>

### COURSE OUTCOMES (CO)1

CO No	Expected Course Outcome <i>Upon completion of this course, the students will be able to:</i>	Learning Domains *	PO No
1	comprehend critically the major tenets of Monetarism and its policy implications	U, E & C	1, 2 & 3
2	appreciate the theoretical relevance of Disequilibrium models in its historical setting and discuss its implications	U & E	1, 2 & 3
3	appreciate the theoretical contributions of new classical Macroeconomics and interpret its policy prescriptions	U, E & C	2, 3 & 4
4	develop a perspective and insightful understanding theoretical contributions of real business school	U, E & C	2, 3 & 4
5	discuss critically the new Keynesian Macroeconomic theories and evaluate their implications	U, E & C	

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

Unit	Sub-Units	Details of the Units	Hours	CO Number
<b>1</b>	<b>Monetarism and Disequilibrium Models</b>			
	<b>1.1</b>	Reformulation of the Quantity Theory of Money: Friedman's Restatement— Monetarism: Major Tenets	3	1 & 2
	<b>1.2</b>	Disequilibrium Models—Clower's Dual Decision Hypothesis – Leijonhufvud & Coordination Failures—Malinvaud's Quantity Constrained Model	8	1 & 2
<b>2</b>	<b>New Classical Macroeconomics</b>			
	<b>2.1</b>	New Classical Macroeconomics: Rational Expectations Hypothesis.	4	3
	<b>2.2</b>	Continuous Market Clearing—Aggregate Supply Hypothesis—Lucas Surprise Supply Function.	6	3
	<b>2.3</b>	Monetary Equilibrium Business Cycle Theory (MEBCT): Misperceptions Theory.	6	3
<b>3</b>	<b>Real Business Cycle School</b>			
	<b>3.1</b>	New Classical Macroeconomics & Policy Implications: Policy Ineffectiveness—Time Inconsistency—Central Bank Independence—Lucas Critique.	6	4



	<b>3.2</b>	REBCT and Real Business Cycle Model—Central Features—Effects of a Positive Technology Shock—REBCT & Policy	6	4
	<b>3.3</b>	DSGE Models	3	4
<b>4</b>	<b>New Keynesian Economics: Theoretical and Policy Stance</b>			
	<b>4.1</b>	New Keynesian Economics: Core Propositions and Features- Nominal & Real Price & Wage Rigidities: Sticky Price (Small Menu Cost) Models—Efficiency Wage Models—Akerlof's Fairness Model	8	5
	<b>4.2</b>	Insider–Outsider Models—Hysteresis—NAIRU	6	5
	<b>4.3</b>	New Keynesian Economics: Policy Implications. Inflation Targeting—Forward & Backward Looking (Taylor) Rules— Criticisms	4	5

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References:**

- 1) Andrew B. Abel and Ben S. Bernanke (2010): Macroeconomics, 4th Ed, Pearson.
- 2) Brian Snowdon, Howard Vane and Peter Wynarczyk (2002): A Modern Guide to Macroeconomics: An Introduction to Competing Schools of Thought, EE.
- 3) Galbraith, James, K and Darity, William Jr (1994): Macroeconomics, Houghton Mifflin Co, NJ
- 4) Hillier, Brian (2006): Macroeconomics: Models, Debates and Development, Basil Blackwell.
- 5) Rudiger Dornbusch, Stanley Fisher and Richard Startz (2007) 7th Ed: Macroeconomics, TMH.
- 6) Rosalind Levacic and Alexander Rebmann (2006): Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies, MacMillan-Part III.
- 7) Richard T. Froyen (2008): Macroeconomics- Theories and Policies, Pearson.
- 8) Williamson, Stephen D. (2018): Macroeconomics, 6th Ed, Pearson

**Additional References:**

1. Heijdra, Ben J. (2017): Foundations of Modern Macroeconomics, 3rd Ed, OUP
2. Kamran Dadkhah (2010): The Evolution of Macroeconomic Theory and Policy, Springer.
3. Phelps, E. (1990): Seven Schools of Macroeconomic Thought, Oxford University Press, Oxford
4. Scarth, William (2014): Macroeconomics: The Development of Modern Methods for Policy Analysis, Edward Elgar.
5. Tsoulfidis, Leteris (2010): *Competing Schools of Economic Thought*, Springer.



<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Time Series and Panel Data Econometrics</b>					
<b>Type of Course</b>	<b>DCC</b>					
<b>Course Code</b>	<b>MCE7DCCECA402</b>					
<b>Course Level</b>	<b>400-499</b>					
<b>Course Summary</b>	The course provides a rigorous yet intuitive exploration of various time series techniques that deals with univariate and multivariate models, econometric forecasting, volatility modelling and growth rate estimation. The various topics will enable the learner to appreciate the behaviour of macroeconomic aggregates helping her to take a firm grab upon the underlying theoretical relationships. The course also aims to equip the learner with the necessary skills to apply the theoretical models with open source software packages.					
<b>Semester</b>	<b>7</b>			<b>Credits</b>		<b>4</b>
<b>Course Details</b>	<b>Learning Approach</b>		<b>Lecture</b>	<b>Tutorial</b>	<b>Practical / Practicum</b>	<b>Total Hours</b>
	Scaffold Learning, Flipped Classroom Approach, Reflective Learning and Learning through Debate and Interaction		<b>4</b>	<b>0</b>	<b>0</b>	<b>60</b>

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PSO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	apply and appreciate the various theoretical models to critically evaluate the behaviour of univariate and multivariate time series	R, U, An & E	1, 2, 3 & 4
2	evaluate the issue of volatility clustering and interpret the phenomena for volatility measurement	A An, E & C	2 & 3
3	demonstrate the various panel data econometric methods and evaluate the results of competing panel data models	A, An, E	2 & 3
4	critically comprehend and evaluate the various methods of growth rate estimation and apply them with real world data	A, An, E & C	2, 3 & 4
5	apply the open source econometric software packages such as Gretl, R to estimate time series econometric models	A & An	1, 2 & 3
6	analyse the results with a view to interpreting the estimates of the time series models	An, E & C	2, 3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Stochastic Process, Stationarity &amp; ARIMA Modelling</b>			
	<b>1.1</b>	Stochastic and Integrated Stochastic Process: Brief Review—Non Stationary Time Series and the problem of Spurious Regression—Solutions	5	1
	<b>1.2</b>	Transforming the Non Stationary Time Series—Tests of Stationarity—Correlogram (ACF, PACF), and Unit Root Tests—Augmented Dicky-Fuller test—Non-parametric PP test—KPSS Test—Structural Change	7	1, 5 & 6
	<b>1.3</b>	The Wold Decomposition Theorem—AR and MA processes—ARMA and ARMAX—ARIMA Modelling	6	1, 5 & 6
<b>2</b>	<b>Cointegration &amp; Growth Rate Estimation</b>			



	<b>2.1</b>	Linear combination of non-stationary series and Cointegration—Granger Representation Theorem—Augmented Engle-Granger test—Cointegration and Error Correction Mechanism	7	1, 5 & 6
	<b>2.2</b>	Vector Auto Regressions (VAR)—VAR Order Selection—Structural VAR (SVAR) and Bayesian VAR (BVAR)—Impulse Response Functions—The issues of optimal lag length—Granger Causality - VAR Models—Advantages and Criticisms - VECM (Vector Error Correction Model)—Johansen–Juselius tests—ARDL Bounds Testing	7	1, 5 & 6
	<b>2.3</b>	Growth Rate Estimation—Robustness—Endogenous and Exogenous Breaks—Kinked Exponential Growth Rates—Robustness—Endogenous and Exogenous Breaks	3	1, 5 & 6
<b>3</b>	<b>Time Series Forecasting and Volatility Measurement</b>			
	<b>3.1</b>	Time Series Forecasting— Single Equation and Simultaneous Equation Regression Modelling and the Lucas Critique— Point Forecasts and Forecast Optimality—Forecast Error Variance Decomposition (FEVD)	5	2, 5 & 6
	<b>3.2</b>	Volatility Measurement—ARCH and GARCH Models and Estimation—GARCH Forecasting	6	2, 5 & 6
<b>4</b>	<b>Panel Data Models and Growth Rate Estimation</b>			
	<b>4.1</b>	Panel Data Models—Nature and Data Sources—Constant Coefficients Model <sup>2</sup> —Error Components Models—Fixed Effect (Lest Squares Dummy Variable LSDV) Model	7	3, 5 & 6
	<b>4.2</b>	Fixed Effect (Within Groups WG) Estimator—Random Effects Model (REM) —Breusch-Pagan Test—Hausman Test—Consistency Property of Estimators	4	3, 5 & 6
	<b>4.3</b>	Dynamic Panel Data Analysis—Panel Data Unit Root—Cointegration Tests	3	3, 5 & 6

### Mode of Assessment

#### A. Continuous Internal Assessment (CIA) - 30 Marks

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

#### B. End Semester Examination (ESE) – 70 Marks

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

### References

- 1) Bhaumik, S. K. (2015). *Principles of Econometrics: A Modern Approach Using Eviews*. Oxford University Press.
- 2) Brooks, C. (2014). *Introductory Econometrics for Finance* (Third edition). Cambridge University Press.
- 3) Enders, W. (2014). *Applied Econometric Time Series* (3rd ed. Repr). Wiley.



- 4) Greene, W. (2018). *Econometric Analysis* (Eighth edition). Pearson.
- 5) Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). *Basic Econometrics* (Fifth edition. Special Indian edition. 5th ed., 19th reprint, 2018). McGraw-Hill Education (India) Private Limited.
- 6) Heiss, F. (2016). *Using R for Introductory Econometrics*. Florian Heiss.
- 7) Hill, R. C., Griffiths, W. E., & Lim, G. C. (2017). *Principles of Econometrics* (Fifth Edition). Wiley.

**Additional References**

- 1) Hsiao, C. (2014). *Analysis of Panel Data* (Third edition). Cambridge University Press.
- 2) Maddala, G. S., & Kim, I.-M. (2007). *Unit Roots, Cointegration and Structural Change* (Repr.). Cambridge Univ. Press.
- 3) Pesaran, M. H. (2015). *Time Series and Panel Data Econometrics* (First edition). Oxford University Press.
- 4) Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data* (2nd ed). MIT Press.



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Money and Banking</b>					
<b>Type of Course</b>	<b>DCE</b>					
<b>Course Code</b>	<b>MCE7DCEECA400</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	The course provides an introduction to monetary theory, to the effects of monetary variables on the macroeconomic system, the role of the Central Bank and the conduct of monetary policy. This course will enable the students of economics to understand theory, practice and analyse the interconnection between the monetary forces and real forces, their developmental role and limitations in shaping and influencing the monetary and related policies both at the national and international levels.					
<b>Semester</b>	<b>7</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative and Case based Learning	<b>4</b>				<b>60</b>

### COURSE OUTCOMES (CO)

CO No	Expected Course Outcome <i>Upon completion of this course, the students will be able to:</i>	Learning Domains *	PSO No
1	Develop understanding of the theories that relate to the existence of money and explaining why it is demanded by individual and used in the transaction process	Un	1
2	Develop understanding of the monetary transmission mechanism whereby decisions made by monetary authorities concerning money supplies and interest rates can have real effects on the economy	Un	4
3	Develop macroeconomic models through which monetary policy can be evaluated and such models will include classical and Keynesian schools of thought.	E	3
4	Develop skills to analyse the problems of real life with the help of monetary theories.	An	2
5	Understanding of the financial system and financial intermediaries will enable them to lead a smart life in the economy	A	1

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

Unit	Sub-Units	Details of the Units	Hours	CO Number
<b>1</b>	<b>Module 1: Introduction to Money</b>			
	<b>1.1</b>	Money: definitions of money, functions of money – money supply and money stock	<b>3</b>	<b>1</b>
	<b>1.2</b>	Money as special asset-Neutrality of money-Monetary standards-Evolution of payment system	<b>3</b>	<b>3</b>
	<b>1.3</b>	Nominal versus real value of Money - The Classical school, neutrality of money and the Quantity theory of money: Fisher's transaction approach, Cambridge cash Balance Approach, Keynes's theory of money and Prices, Friedman's Quantity theory of Money	<b>10</b>	<b>2</b>
<b>2</b>	<b>Module 2: Demand for Money</b>			
	<b>2.1</b>	Demand for Money: Classical, Cambridge, Keynesian approach to demand for money	<b>6</b>	<b>1</b>



	<b>2.2</b>	Post –Keynesian approach to money: Patinkin’s Real Balance Effect, Baumol’s approach and Tobin’s Approach to demand for money	<b>8</b>	<b>1</b>
	<b>2.3</b>	Friedman’s theory of demand for money (Restatement of Quantity theory of Money)	<b>2</b>	<b>3</b>
<b>3</b>	<b>Module 3: Supply of Money</b>			
	<b>3.1</b>	Constituents of money supply-Theory of Money Supply: High Power (H) Theory of Money Supply	<b>3</b>	<b>1</b>
	<b>3.2</b>	Money Multiplier Process, Determinants of the Money Multiplier, Factors affecting H, Adjusted H,	<b>8</b>	<b>1</b>
	<b>3.3</b>	Reserve Bank Analysis of Money supply; Supply of Credit and its Allocation- Money supply and Interest Rates: Loanable fund theory- Keynesian theory of Interest-Theories of term structure of interest rates: Expectation theory, Liquidity Premium theory, Market segmentation theory.	<b>8</b>	<b>1</b>
<b>4</b>	<b>Module 4 :Monetary Policy ,Central Banking and Financial Institutions</b>			
	<b>4.1</b>	Monetary Policy: Goals, targets and instruments of monetary policy- Operating targets of monetary policy-Transmission mechanism of monetary policy	<b>6</b>	<b>4</b>
	<b>4.2</b>	Central bank: Goals, targets and instruments-Administered interest rates and economic performance-Inflation targeting and Taylor rule	<b>5</b>	<b>1</b>
	<b>4.3</b>	Independence, time consistency and credibility of central bank.	<b>4</b>	<b>4</b>
	<b>4.4</b>	Financial System: Financial Institutions- Commercial Banks: Balance sheet of a bank-Liabilities and assets of banks-NPAs-Credit creation	<b>5</b>	<b>1</b>
	<b>4.5</b>	Classification of Commercial Banks- Regional Rural banks, Cooperative Banks, Development Banks, Non-Bank Financial Intermediaries	<b>4</b>	<b>2</b>
	<b>4.6</b>	Global Financial Institutions	<b>3</b>	<b>3</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>	
Class Tests, Self and Peer Assessments, Open Book Tests,	
Assignments, Case study Report	
Seminar/Viva	
Project/Practicum/Quiz/Book Review/Fieldwork etc.	

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Jagdish Handa, (2009): Monetary Economics, 2nd Edition, Routledge, London
2. Walsh, Carl E (2010): Monetary Theory and Policy, Third Edition, the MIT Press Cambridge Massachusetts
4. Mervyn K. Levis and Paul D. Mizen, (2000) Monetary Economics, OUP
5. Mishkin, F.S. (2006) The Economics of Money, Banking, and Financial Markets. Pearson Addison-Wesley Publishers, London.
6. Gupta, Suraj B. (2016): Monetary Economics: Institutions, Theory and Policy, S.Chand and Company Private Limited,



7. Bhole, L. M. (2017) Financial Institutions and Markets, Tata McGraw Hill Company Ltd.

**Additional References**

1. Richard T. Froyen,(2008) Macroeconomics-Theories and Policies, Pearson Publishers,Singapore.
2. Michael R Bayes and Denni S W Jansen, Money, Banking and Financial Markets, All India Traveler Book Seller, New Delhi.
3. Nachene, Dilip and Bhalchandra Mungekar (2003): Indian Economy in the New Millennium, Himalaya Publication, Mumbai. Journal of Monetary Economic





<b>Programme</b>	<b>B. A. Applied Economics Honours</b>					
<b>Course Name</b>	<b>Health Economics</b>					
<b>Type of Course</b>	DCE					
<b>Course Code</b>	MCE7DCEECA401					
<b>Course Level</b>	300-399					
<b>Course Summary</b>	The course on health economics attempts to appreciate the economic aspects of health and health care sector by analysing the demand and supply situation in the health sector. Besides, the course discusses the case for public intervention in the context of market failure especially in preventive medicine and affordable health care for improving health condition of individuals.					
<b>Semester</b>	7	<b>Credits</b>			4	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	4				60

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	evaluate health as a basic determinant of labour productivity	U & E	1, 2
2	critically analyse the importance of health in industrial and business development	U & An	2, 3, 4
3	get an overview of the practical and theoretical problems of health economics in India and its implications	R, U, C	2, 3, 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hrs</b>	<b>CO Number</b>
<b>1</b>	<b>Scope of Health Economics</b>			
	<b>1.1</b>	Health and Health Economics: Definition and Scope—Four Basic Questions & their Implications: Mix of Nonmedical and Medical Goods and Services in Macro economy & in Health Economy—Health Care Resources—Distribution of Medical Goods and Services	<b>5</b>	<b>1</b>
	<b>1.2</b>	Determinants of good health. Measures of health status: Health indicators- Mortality, morbidity and —HALY family of summary measures- QUALY- Quality of life	<b>5</b>	<b>1</b>
<b>2</b>	<b>Demand for Health Care Services</b>			
	<b>2.1</b>	How medical care is different from other markets-Nature of demand for health—Demand for health and demand for health care- Factors affecting demand for health; supplier induced demand (SID) hypothesis.	<b>5</b>	<b>2, 3, 4</b>
	<b>2.3</b>	Demand for health insurance-Reasons for demand for health insurance: Risk averse decision maker-choice of insurance policy—Copayments-Coinsurance—Deductibles	<b>4</b>	<b>2, 3, 4</b>
	<b>2.4</b>	Challenges of health insurance - Moral hazard, Adverse selection; Principal agent relationship	<b>3</b>	<b>2, 3, 4</b>
<b>3</b>	<b>Supply of Health Care Services</b>			
	<b>3.1</b>	Supply of health care – Determinants of supply of health care – Concept of health production- Health production function – Individual as a producer of health	<b>4</b>	<b>2, 3, 4</b>



	<b>3.2</b>	Direct and indirect costs of health care – Fixed and variable costs; Cost concepts in health: Opportunity cost, Incremental and Marginal cost, Direct and indirect medical costs, Time costs and Travel cost.	<b>4</b>	<b>2, 3, 4</b>
	<b>3.3</b>	Role of physician-firm, entrepreneur, diagnostician, labour, Physician conduct and behavior–Profit and Not-for profit Hospitals–Physician control model and utility maximizing model of hospital behavior	<b>6</b>	<b>2, 3, 4</b>
	<b>3.4</b>	Pharmaceutical industry- Market structure- Pricing practices-Pricing issues.	<b>2</b>	<b>2, 3, 4</b>
<b>4</b>	<b>Government Intervention in Health Care</b>			
	<b>4.1</b>	Rational for the intervention of government in health care -Types of government intervention: Provision of public goods , Taxes and subsidies, Regulations (price ceiling and quality regulations), Anti-trust laws and Public Enterprise	<b>4</b>	<b>2, 3, 4</b>
	<b>4.3</b>	Health financing: Sources of public and private health financing -Out of pocket expenditure	<b>3</b>	<b>2, 3, 4</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Dev, M. (2015). India Development Report. New Delhi: OUP.
2. Dianne, D. M. (2010). Essentials of Health Economics, London: Jones and Bartlett Publishers.
3. Feldestein , P. J. (1999). Health Economics. New York: Delmar Publication Learning.
4. Getzen, T. E. (2013). Health Economics and Financing. Wiley.
5. Phelps, C. E. (2016). Health Economics. New York: Routledge.
6. Santerre , R. E. & Neun, S. P. (2013). Health Economics: Theory, Insights and Industry Studies. Mason: Southwest Cengage Learning.
7. World Bank. (1987). The Financing Health Services in Developing Countries: An Agenda for Reform- World Bank Policy Study. Washington: World Bank.

**Additional References**

- 1) Arrow, K. J. (1963). Uncertainty and the Welfare Economics of Medical Care. American Economic Review, LII (5).
- 2) Government of India. (n.d.). National Health Accounts. Ministry of Health and Family Welfare.
- 3) Iqbal, I. (1999). Kerala Model of Health: From Success to Crisis. In M. Kurian, & R. John, Kerala Economy and its Emerging Issues (pp. 277-290). Kerala: SPCS Kottayam.
- 4) Newhouse, P. J. (1960). Towards a Theory of Non-profit Institutions: An Economic Model of a Hospital. American Economic Review, 60(1), 66-74.



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Indian Financial System &amp; Financial Markets</b>					
<b>Type of Course</b>	<b>DCE</b>					
<b>Course Code</b>	<b>MCE7DCEECA402</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	The knowledge on financial system is important as it promotes economic growth. It provides information about the financial position, performance and changes in financial position of the economy that becomes useful for financial planning. Financial knowledge and decision making skills help individuals to weigh their options and to make informed choice at their respective financial situation thereby enable individuals and institutions to save, invest, manage risks, and conduct transactions efficiently. The knowledge about the role that the financial systems play in price discovery and ensuring fair prices for assets and commodities also helps individuals in financial decision making.					
<b>Semester</b>	<b>7</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
		<b>4</b>				<b>60</b>

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PO No</b>
1	Attain knowledge on the role, constituents and macroeconomic developments in Indian financial system.	U,An	1
2	Have knowledge about the various financial services in the economy.	K,U	1
3	Know about the working of financial markets and instruments.	U,An, E	2
4	Analyse stock market dynamics and know about the derivative market.	An,E,Ap	2
5	Know about the working of banking, non-banking and other statutory organizations.	An,E,Ap	2, 3, 4
6	Analytically look into the regulatory framework of the financial system in the economy.	An,E,Ap	2, 3, 4

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Financial System: Role, Structure and Developments</b>			
	<b>1.1</b>	Financial system-Structure and Function-Financial system and economic development- Macro economic developments in Indian Financial System- Integration, Volatility and Inclusion.	5	1
	<b>1.2</b>	Financial Services: Loan Syndication, Leasing and Hire-purchase, Factoring, Forfaiting, Venture Capital, Custodial services, Depository, Corporate Counselling, Securitization, Line of Credit(LOC), House Financing and Bill discounting.	5	2
	<b>1.3</b>	Financial Markets and Instruments: Structure-Components Money Market: Call Money Market, Treasury Bills Market, Miscellaneous Short Term Markets, Bond Market. Instruments: Commercial bills, Treasury bills, Certificate of Deposit, Commercial Paper, Repos.	5	3
<b>2</b>	<b>Stock Market and Derivative Market</b>			



	<b>2.1</b>	Theory of Equity Culture-Classification of Stock Market: Primary/New Issue Market and Secondary Market, Securities: Ordinary shares, Preference shares, Private equity.	4	3
	<b>2.2</b>	Primary Market: IPO, Types of public issues, Book building and fixed price option in IPO, Reverse book building. Secondary Market: BSE, NSE, OTCEI and Other stock exchanges in India, Types of investors in Stock Market, Stock market Indices: S&P BSE Sensex, CNX Nifty, DJII, S&P Composite and NYSE. ETFs (Concept only), Stock Market Liquidity. Market Micro Structure in Indian Stock Market: Listing, Security grouping, Trading system. Challenges.	6	4
	<b>2.3</b>	An Introduction to Derivative Market: Significance, Types of instruments: Forward, Futures, Option, Swaps	5	4
<b>3</b>	<b>Banking Institutions, Non-Banking Financial and Statutory Organizations</b>			
	<b>3.1</b>	Structure of Financial Institutions-Commercial Banks: Theories, Role, NPA and classification of assets, Capital adequacy ratio, Basel Norms, Risk management in banking: Credit, Market, Operational and Liquidity.	5	5
	<b>3.2</b>	Co-operative Banks: Evolution, Structure, Features, Government initiatives, Weaknesses. Banking Sector Reforms in India-Challenges.	5	5
	<b>3.3</b>	Small savings: Post Office Accounts- Provident Fund- Pension Fund (Structure, Composition and growth). Insurance companies, Mutual funds, NBFCs registered with RBI, Other NBFCs: Merchant Banks, Venture Capital Funds, NBSFOs: NABARD, Developmental Financial Institutions.	5	5
<b>4</b>	<b>Financial Regulatory Framework</b>			
	<b>4.1</b>	RBI: Functions, Monetary policy: Framework, Techniques of control, LAF, MSS-Challenges, Committee on Monetary policy framework, Debate on Autonomy of RBI.	5	6
	<b>4.2</b>	SEBI-Constitution, Objectives and Regulatory Approach. Measures taken-Corporate Governance and SEBI.	5	6
	<b>4.3</b>	IRDA-Structure and Statutory Functions. PRDA-Structure and Statutory Functions.	5	6

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

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1. V.Pathak, B. (2018). *Indian Financial System*. Pearson Education.



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**Syllabus - Semester VIII**

<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>
MCE8DCCECA400	International Macroeconomics	DCC
MCE8DCCECA401	Indian Economy: Major Debates	DCC
MCE8DCEECA400	Economics of Agriculture and Food Security	DCE
MCE8DCEECA401	Industrial Economics: Theory and Applications	DCE
MCE8DCEECA402	Introduction to Labour Economics	DCE
MCE8PRJECA400	Project (Honours) / (Research)	PRJ



<b>Programme</b>	<b>Applied Economics</b>						
<b>Course Name</b>	<b>International Macroeconomics</b>						
<b>Type of Course</b>	<b>DCC</b>						
<b>Course Code</b>	<b>MCE8DCCECA400</b>						
<b>Course Level</b>	<b>400-499</b>						
<b>Course Summary</b>	The course attempts to foster a critical understanding of theories of macroeconomics in the international setting by exploring and evaluating the dynamics of foreign exchange market, the theoretical implications of Marshall-Lerner condition, the policy implications of Mundell-Fleming model, the determination of a floating exchange rate, the policy effects of capital mobility, the problem of twin deficits and the theoretical ramifications of new Keynesian open economy model.						
<b>Semester</b>	<b>8</b>		<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>		
	Cognitive Learning	<b>3</b>		<b>1</b>			<b>75</b>
<b>Pre-requisites, if any</b>							

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains</b> *	<b>PO No</b>
1	comprehend critically the dynamics of foreign exchange market	U & E	1, 2 & 4
2	appreciate and interpret the theoretical implications of Marshall-Lerner condition	U, E & C	2, 3 & 4
3	evaluate the Mundell-Fleming model, the capital account & determination of a floating exchange rate and critically interpret their policy implications	U, E & C	1, 2 & 3
4	develop a perspective understanding of capital mobility and its policy consequences	U & E	2, 3 & 4
5	discuss critically the problem of twin deficits	U & E	1, 2 & 3
6	evaluate and interpret the theoretical ramifications of new Keynesian open economy model	U, E & C	2, 3 & 4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Market for Foreign Exchange</b>			
	<b>1.1</b>	Market for Foreign Exchange: Demand for and Supply of Foreign Exchange.	3	1
	<b>1.2</b>	Stability in a Floating Exchange Rate Market—Marshall-Lerner Condition.	3	2
	<b>1.3</b>	Forward Exchange Market—Interest Rate Arbitrage—Hedging—Speculation	2	1
	<b>Practicum</b>	Derive Marshall-Lerner Condition and explain why a depreciation or devaluation of a small country's national currency is not likely to affect its terms of trade	6	
<b>2</b>	<b>Capital Account &amp; Determination of a Floating Exchange Rate</b>			



	<b>2.1</b>	Capital Account: Theories of Capital Movements—Flow, Stock and Monetary Theories	4	3
	<b>2.2</b>	Determination of a Floating Exchange Rate—IS-LM-BP Schedules—Mundell-Fleming Model	4	3
	<b>2.3</b>	Policy Effects of Mundell-Fleming Model with Imperfect & Perfect Capital Mobility under Fixed & Flexible Exchange Rates—Impossible Trinity	5	3
	<b>2.4</b>	PPP Theory—The Dornbusch Sticky Price (Overshooting) Model	3	3
	<b>Practicum</b>	Derive the IS-LM-BP Model in a formal manner and use the equations to trace the effects of (a) a contractionary fiscal policy, (b) a tight monetary policy, and (c) an appreciation or revaluation of the nation's currency.	8	
	<b>Policy Effects and Capital Mobility</b>			
	<b>3.1</b>	Macroeconomic Policy with Fixed and Pegged Exchange Rates Devaluation: Elasticities Approach and Absorption Approach—J-Curve Effect	4	4
	<b>3.2</b>	Effects of Devaluation on National Income, Direct Absorption—Devaluation and Non-Traded Goods—Internal and external balance—The Salter-Swan Approach—The Assignment Problem	4	4
	<b>3.3</b>	Pegged Exchange Rates and Capital Mobility—Monetary Policy and Sterilization— Devaluation under The Monetary Approach—Expansion of Money Supply & Increase in Income	4	4
<b>3</b>	<b>Practicum</b>	Discuss how does the Swan diagram help us determine the policy mix to reach external and internal equilibrium simultaneously. Also show under what conditions does a single policy instrument help a nation reach both external and internal balance simultaneously.	8	
	<b>Problem of Twin Deficits &amp; New Keynesian Open Economy Model</b>			
	<b>4.1</b>	Twin Deficits: Fiscal Deficits and Current Account Imbalances	3	5
	<b>4.2</b>	Government Spending and Current Account Deficits—Failure of Ricardian Equivalence	2	5
	<b>4.3</b>	Basic New Keynesian Open Economy Model— Monetary Policy Under Flexible & Fixed Exchange Rates— Impact of Demand and Supply Shocks— Summary and Comparison with Mundell-Fleming Model	4	6
	<b>Practicum</b>	Discuss the relationship between India's current account and budget deficits by using the RBI database and appreciate the implications of twin deficit problem	8	

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>	
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report	
Seminar/Viva	
Project/Practicum/Quiz/Book Review/Fieldwork etc.	

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70





**References**

1. Abel, A. B., Bernanke, B., & Croushore, D. D. (2011). *Macroeconomics* (7th ed). Addison-Wesley.
2. Argy, V. (2013). *International Macroeconomics: Theory and Policy*. Routledge.
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<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Indian Economy: Major Debates</b>					
<b>Type of Course</b>	<b>DCC</b>					
<b>Course Code</b>	<b>MCE8DCCECA401</b>					
<b>Course Level</b>	<b>400-499</b>					
<b>Course Summary</b>	The course offers an in-depth exploration of the key controversies, debates, and contentious issues shaping India's economic trajectory. Besides, the course will enable the learner to critically examine the diverse viewpoints and arguments surrounding these issues.					
<b>Semester</b>	<b>8</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	<b>Hours</b>
	Authentic, Collaborative, and Case-based learning	<b>3</b>		<b>1</b>		

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PSO No</b>
1	gain insight into the diverse perspectives surrounding key economic issues in India, such as poverty alleviation, industrial development, and agricultural reforms, by exploring various schools of thought and ideological stances.	U, An	1
2	sharpen their research skills by engaging with academic literature, policy documents, and empirical studies related to contentious economic topics in India, thus fostering a deeper understanding of the underlying factors driving these debates.	U, An	2
3	analyse the potential consequences and interpret the different policy approaches and reforms on economic growth, equity, and social welfare.	An, E & C	3
4	understand and interpret the policy implications arising from major debates	U, E & C	4
5	develop the ability to critically comprehend and apprise major debates in the Indian economy, including contrasting viewpoints, empirical evidence, and theoretical frameworks	U, E & C	4

\* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Module 1: Economic Development Models and Strategies</b>			
	<b>1.1</b>	Introduction to Economic Development in India -Historical overview of economic development models in India - Comparison of Gandhian, Nehruvian, and liberalization eras.	<b>5</b>	<b>1</b>
	<b>1.2</b>	Debate on State Intervention vs. Market Forces -Examination of the role of the state versus market forces in economic development - Critique of the mixed economy model and arguments for and against liberalization.	<b>5</b>	<b>1,5</b>
	<b>1.3</b>	Agrarian Crisis and Rural Development -Analysis of agrarian issues, land reforms, and agricultural policies - Debate on the impact of agrarian distress on rural development and poverty alleviation efforts.	<b>5</b>	<b>1,3</b>
	<b>Practicum</b>	Prepare a report on the agrarian distress and crisis in the post reform period since 1991	<b>3</b>	<b>1,3</b>
<b>2</b>	<b>Module 2: Growth vs. Equity Debate</b>			



	<b>2.1</b>	Economic Growth vs. Inclusive Development - Examination of the trade-off between economic growth and social equity - Evaluation of growth-oriented policies and their impact on income distribution and social welfare.	<b>5</b>	<b>1,4,5</b>
	<b>2.2</b>	Poverty Alleviation Strategies - Analysis of poverty measurement, trends, and determinants in India - Debate on poverty alleviation strategies, including targeted welfare programs versus universal basic income.	<b>5</b>	<b>1,3</b>
	<b>2.3</b>	Inequality and Social Justice - Examination of trends in income and wealth inequality in India - Debate on the relationship between economic inequality, social justice, and inclusive development.	<b>5</b>	<b>1,2</b>
	<b>Practicum</b>	Prepare a report on various poverty alleviation programmes implemented in India by pointing out their achievements and failures with a view to suggest alternative measures to address the problem	<b>3</b>	<b>1,4,5</b>
<b>3</b>	<b>Module 3: Industrialization and Trade Policies</b>			
	<b>3.1</b>	Industrialization Strategies and Policies - Analysis of industrial policies, manufacturing sector growth, and industrialization strategies - Debate on import substitution versus export-oriented industrialization.	<b>5</b>	<b>3,5</b>
	<b>3.2</b>	Trade Liberalization and Globalization - Examination of trade liberalization policies, trade agreements, and their impact on the Indian economy - Debate on the benefits and challenges of globalization for India's industrialization and economic development.	<b>5</b>	<b>2,4,5</b>
	<b>3.3</b>	MSME Sector and Employment - Analysis of the role of micro, small, and medium enterprises (MSMEs) in industrialization and employment generation - Debate on policies to promote MSMEs and address employment challenges in the informal sector.	<b>5</b>	<b>3</b>
	<b>Practicum</b>	Classroom Discussion on Industrialisation Strategies, policies on MSMEs and consequences of Globalisation	<b>4</b>	<b>2,4,5</b>
<b>4</b>	<b>Module 4: Financial Sector Reforms , Monetary Policy and Fiscal Policy</b>			
	<b>4.1</b>	Financial Sector Reforms - Examination of banking sector reforms, capital market reforms, and financial inclusion initiatives - Debate on the regulation and supervision of the financial sector and financial stability.	<b>5</b>	<b>2,4</b>
	<b>4.2</b>	Monetary Policy and Inflation Targeting -Analysis of monetary policy frameworks, inflation targeting, and central bank independence - Debate on the effectiveness of monetary policy in achieving macroeconomic stability and growth.	<b>5</b>	<b>3</b>
	<b>4.3</b>	Debates on Political Economy of Fiscal Policy, Debates on Crowding Out and Sound Finance, Debates on Fiscal Deficit and Black Economy, Debates on Centre-State Financial Relations	<b>5</b>	<b>2,4,5</b>
	<b>Practicum</b>	Discussion on the latest Monetary Policy of RBI, Budget Discussion, Economic Survey Analysis	<b>5</b>	<b>2,4,5</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests, Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.



**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**References**

1. Basu, K., & Maertens, A. (Eds.). (2012). *The New Oxford Companion to Economics in India*. Oxford University Press.
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<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Economics of Agriculture &amp; Food Security</b>					
<b>Type of Course</b>	<b>DCE</b>					
<b>Course Code</b>	<b>MCE8DCEECA400</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	A study of agricultural economics and food security is important as it constitutes an important aspect of economic development. the interdependence of the sector with other sectors reveals the importance of the sector for the economy. The course aims at reiterating the significance of the sector through imparting knowledge on various aspects such as theoretical developments, demand, supply, pricing, marketing of the sector. The scope of improving marketing and value addition to ensure food security in the system also has been given emphasis. The course aims at enabling the student community to think critically on the issues, challenges and policies of the sector.					
<b>Semester</b>	<b>8</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic and case based	3		1		75

### COURSE OUTCOMES (CO)

<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PO No</b>
1	Gaining of knowledge on significance, fundamental concepts and models in the theory of production and costs.	K,Un	1
2	Gaining knowledge on tools for decision making in agricultural production under risk and uncertainty.	An	1
3	Gaining a theoretical understanding of inter-sectoral issues and agricultural development.	E	1, 2
4	Gaining an understanding on the fundamentals of Farm Management and Agricultural Marketing.	Un	1, 2
5	Gaining an understanding on Agricultural Pricing and Policy.	E	1, 2
6	Gaining an ability to comprehend the issues in agricultural economy.	An,Ap	1, 2, 3, 4

### COURSE CONTENT

#### Content for Classroom Transactions (Units)

<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Introduction to Agricultural Economics</b>			
	<b>1.1</b>	Nature and Scope of Agricultural Economics–Role of agriculture in economic development: Factor, Market and Product Contribution. Interdependence between agriculture and industry: Terms of trade between Agriculture and Industry.	5	1
	<b>1.2</b>	Farm Organization: Types–Peasant farming, Corporate farming, State farming, Collective farming and Co-operative farming. Concept of Land reforms: Objectives, Owner cultivation versus tenancy cultivation, Large farms versus small farms. (General). Land Reforms and Indian Agriculture.	7	1
	<b>1.3</b>	Issues in Agriculture: Risk and uncertainty–Duality theory. Instability of agriculture: Price and Income instability. Productivity debate in Indian Agriculture: Private and public	7	2



		investment in agriculture, Effect of Climate Change on Indian Agriculture-Profitability in agriculture.		
	<b>Practicum</b>	1. Discussion on the suitable farm organization for Indian agriculture. 2. Discussion on land reforms in India.	1	2
<b>2</b>	<b>Theories on Intersectoral Issues and Agricultural Development</b>			
	<b>2.1</b>	Two sector Economy Model: Lewis Model.	3	3
	<b>2.2</b>	Three phase linkage to Industrialization: Fei-Ranis Model	3	3
	<b>2.3</b>	Necessary Conditions for the Sectoral Shift: Schultz-Jorgenson Models-Other Models: Cob-Web Model, Wage-Good Model.	6	3
	<b>Practicum</b>	Critical examination between Agriculture First versus Balanced Growth approaches.	1	3
<b>3</b>	<b>Theory of Agricultural Production and Marketing</b>			
	<b>3.1</b>	Physical relationships: Factor-Product, Factor-Factor and Product-Product Relationship. Economic relationships: Economic optima: Factor-Product, Factor-Factor and Product-Product. Economic optimum: General case. Agricultural Production Function: Types and uses.	7	4
	<b>3.2</b>	Farm Management: Production function approach, Farm budgeting approach and Linear programming approach. Farm Efficiency: Efficiency of resource use-Technical, Allocative and Economic efficiency.	7	4
	<b>3.3</b>	Need for an Efficient Marketing System, Efficiency Criteria: Operational, Efficiency, Pricing Efficiency and Distributive Justice. Agricultural Marketing in India-Developments: NAM, APMC-Challenges.	7	4
<b>4</b>	<b>Agricultural Price Policy, Supply and Finance-Leading Issues</b>			
	<b>4.1</b>	Agricultural Price Policy: Essential features of an Ideal Price Policy. Price Support: Remunerative prices, Reasonable prices. Agricultural Price Policy in India: CACP, MSP-Food Security.	7	5&6
	<b>4.2</b>	Agricultural Supply Function-Supply response in Agriculture: Normal response, Inverse (Perverse supply) and Insensitiveness to price changes. Demand for inputs. Technological change. Food Security. WTO and Indian Agriculture-Feminization Hypothesis.	8	5&6
	<b>4.3</b>	Agricultural Finance: Credit: Need, Types, Sources: Institutional and Non-Institutional sources. Micro Financing.	6	5&6

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70



**References:**

1. David Colman, T. Y. (1989). *Principles of Agricultural Economics-Markets and Prices in Less Developed Countries*. Cambridge University Press.
2. Boyle, J. E. (2023). *Agricultural Economics*. MJP Publishers.
3. Whetham, E. H. (2013). *The Economic Background to Agricultural Policy*. Cambridge University Press.
4. Vaidyanathan, A. (2023). *Agricultural Growth in India-Role of Technology, Incentives and Institutions*. Oxford University Press.
5. David Orden, D. B. (2011). *WTO Disciplines on Agricultural Support-Seeking a Fair Basis for Trade*. Cambridge University Press.
6. Kym Anderson (2010). *The Political Economy of Agricultural Price Distortions*. Cambridge University Press.
7. R.N.Soni. (2009). *Leading Issues in Agricultural Economics*. Vishal Publishing Co.





<b>Programme</b>	<b>BA Applied Economics</b>					
<b>Course Name</b>	<b>Industrial Economics: Theory and Applications</b>					
<b>Type of Course</b>	<b>DCE</b>					
<b>Course Code</b>	<b>MCE8DCEECA401</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	This paper intends to provide comprehensive knowledge about the economics of industry and issues related to industries. Its aim is to equip the students with a broad range of the methods and models applied in the analysis of firms and industries. This course can help the students in acquiring necessary analytical skills in understanding and evaluating the practices, problems and progress of the industrial sector. This course offers a rich and diverse platform to explore the core of the economic theory, using real-world examples and encouraging unique and innovative problem-solving techniques.					
<b>Semester</b>	<b>8</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practicum</b>	<b>Others</b>	
	Authentic, Collaborative and Case-Based Learning	<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>	A basic understanding of different microeconomic tools particularly those related to the producer behaviour and market structure. A preliminary knowledge of Indian economy especially those related to the industrial sector, industrial growth and industrial policies.					

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b>	<b>Learning Domains *</b>	<b>PO No</b>
	<i>Upon completion of this course, the students will be able to:</i>		
1	Acquire an in depth understanding about the meaning and nature of Industrial Economics and its theoretical applications	U, R & A	1
2	Understand the market structure and industrial organization in general and in Indian context.	U, An & A	2
3	Have an in depth understanding of the pricing theories of industrial output and how to apply such theories in Indian context.	U, A & E	3
4	Analyze industrial labor issues and financial institutions providing long and term capital to the industrial sector, and to appraise their role in Indian circumstances	An	4
5	To understand and analyze the changes in the industrial policies in India and to assess and create a document on the impact of such policy on Indian economy.	U An & A	4
* Remember (R), Understand (U), Apply (A), Analyze (An), Evaluate (E), and Create (C)			

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>		<b>An Introduction to Industrial Economics</b>		



	<b>1.1</b>	Nature and Scope of Industrial Economics	3	1
	<b>1.2</b>	Different forms of Industrial Organization, Proprietorship, Partnership, Joint Stock Companies, Holding Companies, and Industrial Co-Operative Organizations-Corporation	5	2
	<b>1.3</b>	Public Sector Companies: departmental, govt. companies, joint-sector,	3	1
	<b>1.4</b>	Internal organization: unitary (U) form and multi-divisional (M)	4	3
	<b>Practicum</b>	1. Discussion on the forms of organization of Cochin Shipyard and FACT 2. Visiting Private Sector Companies in Kochi	6	3
<b>2</b>	<b>Theories</b>			
	<b>2.1</b>	Theories of the growth of the firm: Neo Classical Theory-Managerial Theory-Downie's-theory Penrose's theory and Morris's theory	5	1
	<b>2.2</b>	Structure Conduct Performance (SCP) paradigm. Market Power - Market concentration and its relationships.	4	2
	<b>2.3</b>	Market Structure: Meaning of the market structure	4	3
	<b>Practicum</b>	1. Classroom Seminars on Market Structure 2. Debate on the Competition Law	2	3
<b>3</b>	<b>Pricing Decisions</b>			
	<b>3.1</b>	General situations for Pricing decisions - Pricing goals: maximization of profit, sales, rate of return, sales and market shares	5	1
	<b>3.2</b>	Pricing policies: marginal cost and full-cost pricing-	4	3
	<b>3.3</b>	Pricing in practice -cost plus pricing, incremental cost pricing, the target rate of return pricing, acceptance pricing, the Going-rate pricing, pricing in public enterprises.	5	5
	<b>Practicum</b>	Discussion on the monopoly pricing by KSEB Debate on Pricing Policies	4	5
<b>4</b>	<b>Industrial Finance, Industrial Growth and Industrial Relation</b>			
	<b>4.1</b>	Indian Industrial Finance: IDBI, IFCI, SFCs, SIDC, Commercial and cooperative banks, share market, insurance companies, pension funds, NBFIs	8	1
	<b>4.2</b>	Industrial Growth-Dualism in Indian Manufacturing-Missing Middle	5	2
	<b>4.3</b>	Industrial Relation-Nature of Industrial Relation-Objective of Industrial Relation- Labour codes and Labour Reforms-Trade Unions	5	3
	<b>Practicum</b>	1. Debate on Industrial Growth in India 2. Panel Discussion on Trade Unions	3	2,3

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

Components of CIA
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

Maximum Marks: 70; Time: 2 hour			
Answer Type	Word Limit	Number of questions to be answered	Mark



Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

### References

1. Ahluwallia I J, Industrial Growth in India, Oxford University Press, New Delhi, 1985
2. Barthwal, R.R, Industrial Economics, Wiley Eastern Ltd., New Delhi, 1985
3. Divine, P.J. and R.M. Jones et. al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London
4. Isher Judge Alhuwalia, Industrial Growth in India, Oxford University Press, New Delhi, 1985.
5. Kapila, Uma (2018). Indian Economy since Independence, 28th Edition, Academic Foundation, New Delhi.



<b>Programme</b>	<b>Applied Economics</b>					
<b>Course Name</b>	<b>Introduction to Labour Economics</b>					
<b>Type of Course</b>	<b>DCE</b>					
<b>Course Code</b>	<b>MCE8DCEECA402</b>					
<b>Course Level</b>	<b>300-399</b>					
<b>Course Summary</b>	This course is intended as an introduction to labour economics, and equips students to understand the working of the forces and equilibrium in labour market.					
<b>Semester</b>	<b>8</b>	<b>Credits</b>			<b>4</b>	<b>Total Hours</b>
<b>Course Details</b>	<b>Learning Approach</b>	<b>Lecture</b>	<b>Tutorial</b>	<b>Practical / Practicum</b>	<b>Others</b>	
	Authentic, Collaborative, and Case-based learning	<b>3</b>		<b>1</b>		<b>75</b>
<b>Pre-requisites, if any</b>	Fundamentals of microeconomics.					

<b>COURSE OUTCOMES (CO)</b>			
<b>CO No</b>	<b>Expected Course Outcome</b> <i>Upon completion of this course, the students will be able to:</i>	<b>Learning Domains *</b>	<b>PO No</b>
1	To understand the features of labour and labour economics	A	1, 2, 3, 4
2	To understand the theories of supply of labour	A	1, 2, 3, 4
3	To understand the theories of demand for labour	A	1, 2, 3, 4
4	To analyse the determinants of equilibrium level of employment and wage determination	An	1, 2, 3, 4
5	To analyse the problems of wage differentials and labour market discrimination	An	1, 2, 3, 4
*Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I) and Appreciation (Ap)			

<b>COURSE CONTENT</b>				
<b>Content for Classroom Transactions (Units)</b>				
<b>Unit</b>	<b>Sub-Units</b>	<b>Details of the Units</b>	<b>Hours</b>	<b>CO Number</b>
<b>1</b>	<b>Labour Economics</b>			
	<b>1.1</b>	Labour Economics – Labour market – Unique Features of the labour market	<b>3</b>	<b>1</b>
	<b>1.2</b>	Labour Market outcome – Labour Market Process: Market Forces, Institutional forces, Sociological forces	<b>4</b>	<b>1</b>
	<b>1.3</b>	Evolution of Labour economics, Neoclassical and Institutional school–Importance of labour economics	<b>3</b>	<b>1</b>
	<b>1.4</b>	Definitions: Labor Force, Labor Force Participation, Employed, Unemployed, Discouraged worker, Reservation wage Measures of unemployment (PLFS): Usual Status and Current Weekly Status; Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate; self-employed, regular wage/salaried employee and casual labour	<b>4</b>	<b>1</b>
	<b>Practicum</b>	Discuss the data on unemployment	<b>8</b>	<b>1</b>
<b>2</b>	<b>Labour Supply</b>			
	<b>2.1</b>	Labour Supply—Neo Classical Theory of Labour /Leisure Choice, Income effect, Substitution effect—Labour Supply Curve	<b>5</b>	<b>2</b>



	<b>2.2</b>	Applications in Public Policy—Income Taxes and Labour Supply – Critical Evaluation the neoclassical theory	<b>3</b>	<b>2</b>
	<b>Practicum</b>	Identify technological change and labour supply in the area	<b>7</b>	<b>2</b>
	<b>Labour Demand</b>			
<b>3</b>	<b>3.1</b>	Short-run Demand for Labour —Marginal Productivity Theory—Elasticity of Demand for Labour —Relationship between Product Demand and Labour Demand—Short-run Equilibrium Level of Employment	<b>6</b>	<b>3</b>
	<b>3.2</b>	Long Run Demand for Labour — Equilibrium Level of Employment—Determinants of the Elasticity of Labour Demand	<b>5</b>	<b>3</b>
	<b>3.3</b>	Technological Change and labour demand – Productivity Growth and the Demand for Labor	<b>2</b>	<b>3</b>
	<b>Practicum</b>	Identify technological change and labour demand in the area	<b>8</b>	<b>3</b>
	<b>Determination of Wages, Discrimination</b>			
<b>4</b>	<b>4.1</b>	Wage Determination in Competitive Markets, Law of one wage—Wage Determination in Monopsony—Process of Market Adjustment – Market Adjustment and the Minimum Wage—Efficiency wage theory	<b>5</b>	<b>4, 5</b>
	<b>4.2</b>	Compensating Wage Differentials—Occupational Segregation – Discrimination in the Labour Market—Theories of Market Discrimination: Personal Prejudice, Market Power, Imperfect Information	<b>5</b>	<b>4, 5</b>
	<b>Practicum</b>	Identify the sources of discrimination in the area	<b>7</b>	<b>4, 5</b>

**Mode of Assessment****A. Continuous Internal Assessment (CIA) - 30 Marks**

<b>Components of CIA</b>
Class Tests, Self and Peer Assessments, Open Book Tests,
Assignments, Case study Report
Seminar/Viva
Project/Practicum/Quiz/Book Review/Fieldwork etc.

**B. End Semester Examination (ESE) – 70 Marks**

<b>Maximum Marks: 70; Time: 2 hour</b>			
<b>Answer Type</b>	<b>Word Limit</b>	<b>Number of questions to be answered</b>	<b>Mark</b>
Short Answer	30 words	10 out of 15	10 x 2 = 20
Short Essay	150 words	10 out of 15	10 x 5 = 50
Total Mark for ESE			70

**Reference**

1. Borjas, G. J. (2020). *Labor Economics*. McGraw-Hill.
2. Cahuc, P., Carcillo, S., & Zylberb, A. (2014). *Labor Economics*. The MIT Press.
3. Kaufman, B. E. (2003). *The Economics of Labor Markets*. Thomson South Western.
4. McConnell, C., Brue, S., & Mac, D. (2017). *Contemporary Labor Economics*. McGraw-Hill Education.



<b>Internship</b>
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<b>Programme</b>	<b>BA Applied Economics</b>
<b>Course Name</b>	<b>Internship</b>
<b>Course Code</b>	<b>MCE4INTECA200</b>
<b>Semester</b>	<b>4</b>
<b>Credits</b>	<b>2</b>

**Internship Evaluation**

Each student should complete an internship programme. The internship evaluation has two components internal and external with a total mark of 50. Internal evaluation has 15 marks whereas external evaluation has 35 marks. Following are the criteria for internal and external valuations.

The internship evaluation has two components: (A) Continuous Comprehensive Assessment (CCA) for 15 marks and (B) Internship Report Evaluation (ESE) for 35 marks.

**(A) Continuous Comprehensive Assessment (CCA): 15 marks**

<b>Continuous Comprehensive Assessment (CCA)</b>		
SI No	Components	Marks
1	Definition of the Internship Work/Area/Problem.	5
2	Use of Methodology.	5
3	Analysis/Argumentation/Findings and Suggestions.	5
	<b>Total</b>	<b>15</b>

**(B) Internship Report Evaluation (ESE): 35 marks**

<b>Internship Report Evaluation</b>		
SI No	Components	Marks
1	Definition of the Internship Work/Area/Problem.	10
2	Use of Methodology.	10
3	Analysis/Argumentation/Findings and Suggestions.	15
	<b>Total</b>	<b>35</b>

**Formal requirements for the Internship Report**

The Report must be typed on a computer and comply with the following requirements: a) Font: Times New Roman (or any other suitable font), font size 12 and a line spacing of 1.5. The minimum length of the internship report is 25 pages (A4 Size) excluding the references, endnotes, appendices and the cover/certificate/content pages. The Report should follow the following recommended structure:

- A) Introduction,
- B) Nature of the internship engagement
- C) Internship Problem or Area
- D) Data and Methodology (if required),
- E) Skills, Analysis techniques applied during internship,
- F) Summary of the internship engagement and conclusion
- G) References.



<b>Project</b>
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<b>Programme</b>	<b>BA Applied Economics</b>
<b>Course Name</b>	<b>Project</b>
<b>Course Code</b>	<b>MCE8PRJECA400</b>
<b>Semester</b>	<b>8</b>
<b>Credits</b>	<b>12</b>

The student attending the Honours programme in Economics should complete a project. The project has 12 credits and its intended to develop research skills of the students.

The programme awards 12 credits for the project component, and the assessment has two components –Continuous Comprehensive Assessment (CCA) and End Semester Examination (ESE). Mark division and the components for the two segments are shown in the table.

<b>Type of assessment</b>	<b>Marks for the Project</b>	<b>Marks for the Components</b>
<b>CCA</b>	60 marks	(a) Research Problem and its presentation (10), (b) Methodology (15), (c) Analysis (20), (d) Interpretation, Findings and Suggestions (15).
<b>ESE</b>	140 marks	(a) Project Report (100) and (b) Viva (40).
<b>Total</b>	<b>200 marks</b>	

### **Formal requirements for the Project Report**

Each student should prepare a Project Report, typed on a computer and comply with the following requirements: a) Font: Times New Roman/Verdana/Bookman Old Style/Georgia (or any other suitable font), font size 12 and a line spacing of 1.5. The minimum length of the internship report is 60 pages (A4 Size) excluding the references, endnotes, appendices and the cover/certificate/content pages. A soft copy of the project in PDF/Word format should also be kept by the Department for future reference.

