

FOUR YEAR UNDERGRADUATE PROGRAMME IN ECONOMICS
DETAILS OF COURSES OFFERED
LIST OF DISCIPLINE SPECIFIC COURSES (DSC)

SEMESTER	COURSE CODE	COURSE NAME	MARKS					CREDITS	HOURS/WEEK
			CCA		ESE		TOTAL		
			P	L	P	L			
I	KU1DSCECO101	Introductory Microeconomics	0	30	0	70	100	4	4
	KU1DSCECO102	Economics for Beginners	0	30	0	70	100	4	4
	KU1DSCECO103	Economics of Tourism and Development	0	30	0	70	100	4	4
	KU1DSCECO104	Fundamentals of Economic Development	0	30	0	70	100	4	4
	KU1DSCECO105	Economic Journalism	0	30	0	70	100	4	4
II	KU2DSCECO106	Introductory Macroeconomics	0	30	0	70	100	4	4
	KU2DSCECO107	Demography	0	30	0	70	100	4	4
	KU2DSCECO108	Personal Finance	0	30	0	70	100	4	4
	KU2DSCECO109	Nutrition Economics	0	30	0	70	100	4	4
	KU2DSCECO110	Foundations of Economic Analysis	0	30	0	70	100	4	4
III	KU3DSCECO201	Intermediate Microeconomics	0	30	0	70	100	4	4
	KU3DSCECO202	Basic Analytical Tools for Economics	0	30	0	70	100	4	4
	KU3DSCECO203	Economics of Banking and Finance	0	30	0	70	100	4	4
	KU3DSCECO204	Fundamentals of Social Science Research	10	25	15	50	100	4	5
	KU3DSCECO205	Economics of Care and Ageing	0	30	0	70	100	4	4
IV	KU4DSCECO206	Intermediate Macroeconomics	0	30	0	70	100	4	4
	KU4DSCECO207	Environmental Economics	0	30	0	70	100	4	4
	KU4DSCECO208	Public Finance	0	30	0	70	100	4	4
V	KU5DSCECO301	International Economics	0	30	0	70	100	4	4
	KU5DSCECO302	Heterodox Economics	0	30	0	70	100	4	4
	KU5DSCECO303	Statistical Tools for Economics	0	30	0	70	100	4	4
	KU6DSCECO304	Development Issues of Indian Economy I	0	30	0	70	100	4	4

VI	KU6DSCECO305	Mathematical Tools for Economics	0	30	0	70	100	4	4
	KU6DSCECO306	Introductory Econometrics	0	30	0	70	100	4	4
VII	KU7DSCECO401	Advanced Microeconomics I	0	30	0	70	100	4	4
	KU7DSCECO402	Advanced Macroeconomics I	0	30	0	70	100	4	4
	KU7DSCECO403	Advanced Quantitative Techniques for Economic Analysis	0	30	0	70	100	4	4
	KU7DSCECO404	Development Issues of Indian Economy II	0	30	0	70	100	4	4
	KU7DSCECO405	Readings in Political Economy	0	30	0	70	100	4	4
VIII	KU8DSCECO406	Advanced Microeconomics II	0	30	0	70	100	4	4
	KU8DSCECO407	Advanced Macroeconomics II	0	30	0	70	100	4	4
	KU8DSCECO408	Applied Econometrics	0	30	0	70	100	4	4
	KU8DSCECO409	Advancements in Economic Research	10	25	15	50	100	4	5
	KU8DSCECO410	Behavioral Economics	0	30	0	70	100	4	4
Internship in Major Discipline/Research Project in Major Discipline									
VI	KU6INTECO301	(Credit for internship to be awarded only at the end of Semester 6)	15	0	35-	0	50	2	4
VIII	KU8RPHECO401	Project (in Honours Programme)	60	0	140-	0	200	8	16
VIII	KU8RPHECO402	Research Project (in Honours with Research Programme)	90	0	210-	0	300	12	24

FOUR YEAR UNDERGRADUATE PROGRAMME IN ECONOMICS

LIST OF DISCIPLINE SPECIFIC ELECTIVE COURSES

DETAILS OF COURSES OFFERED.

SEMESTER	COURSE CODE	COURSE NAME	MARKS					TOTAL	CREDITS	HOURS/WEEK
			CCA		ESE					
			P	L	P	L				
V	KU5DSEECO301	Contours of Economic Ideas	0	30	0	70	100	4	4	
	KU5DSEECO302	Economic Geography	0	30	0	70	100	4	4	
	KU5DSEECO303	Agricultural Economics	0	30	0	70	100	4	4	
	KU5DSEECO304	Economics of Growth and Development	0	30	0	70	100	4	4	
VI	KU6DSEECO305	Gender Economics	0	30	0	70	100	4	4	
	KU6DSEECO306	Managerial Economics	0	30	0	70	100	4	4	
	KU6DSEECO307	Advanced Mathematical Economics	0	30	0	70	100	4	4	
	KU6DSEECO308	Institutional Economics	0	30	0	70	100	4	4	
	KU6DSEECO309	Labour Economics	0	30	0	70	100	4	4	
VIII	KU8DSEECO401	Economics of Health and Education	0	30	0	70	100	4	4	
	KU8DSEECO402	Project management	0	30	0	70	100	4	4	
	KU8DSEECO403	Economics of Innovation	0	30	0	70	100	4	4	
LISTS OF MDC/ SEC/ VAC IN ECONOMICS										
MULTIDISCIPLINARY COURSES										
I	KU1MDCECO101	Economics in Daily Life	0	25	0	50	75	3	3	
I	KU1MDCECO102	Economics for Competitive Examination	0	25	0	50	75	3	3	
II	KU2MDCECO103	Issues in Indian Economic Development	0	25	0	50	75	3	3	
II	KU2MDCECO104	Economics of Startup and Entrepreneurship	0	25	0	50	75	3	3	
VALUE ADDED COURSES										
III	KU3VACECO201	Environmental Sensitization and Disaster Management	0	25	0	50	75	3	3	
III	KU3VACECO202	Academic Writing in Social Science	0	25	0	50	75	3	3	

IV	KU4VACECO203	Economics of Crime and Corruption	0	25	0	50	75	3	3
IV	KU4VACECO204	Ethics in Academic Writing	0	25	0	50	75	3	3
SKILL ENHANCEMENT COURSES									
IV	KU4SECECO201	Data Analytics with Spreadsheets	15	10	35	15	75	3	5
IV	KU4SECECO202	Hospital Economics	10	15	15	35	75	3	4
V	KU5SECECO301	Experiencing Indian Stock Market-	10	15	15	35	75	3	4
V	KU5SECECO302	Logistic and Supply Chain Management	10	15	15	35	75	3	4
V	KU5SECECO303	Reading Economic Survey and Union Budget	10	15	15	35	75	3	4
VI	KU6SECECO304	Goods and Services Tax	10	15	15	35	75	3	4
VI	KU6SECECO305	Finance and Technology	10	15	15	35	75	3	4
VI	KU6SECECO306	Databases and Basic Computational Techniques For Data Analysis	10	15	15	35	75	3	4

Course and Credit Structure for Different Pathways
Course Distribution for Students in Semesters I – VI

- (1) *Single Major*: The 6 courses together in B and C can be in different disciplines.
 (2) *Major with Multiple Disciplines*: B and C represent two different disciplines.
 (3) *Major with Minor*: B and C represent the same Minor discipline.

I SEMESTER				
Sl No	Course	Hours/Week	Credits	Total Marks
1	AEC1 (English)	3/4	3	75
2	AEC2 (Additional Language)	3/4	3	75
3	MDC1	3	3	75
4	DSC A1	4	4	100
5	DSC B1-minor-1	4	4	100
6	DSC C1-minor2	4	4	100
	Total	22/25	21	525

II SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	AEC3 (English)	3/4	3	75
2	AEC4 (Additional Language)	3	3	75
3	MDC2	3	3	75
4	DSC A2	4/5	4	100
5	DSC B2-minor-3	4/5	4	100
6	DSC C2-minor-4	4/5	4	100
	Total	22/25	21	525

III SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	MDC3 (Kerala Studies)	3	3	75
2	VAC1	3	3	75
3	DSC A3	4	4	100
4	DSC A4	4	4	100
5	DSC B3-minor-5	5	4	100
6	DSC C3-minor-6	4/5	4	100
	Total	23/25	22	550

IV SEMESTER				
Sl No	Course	Hours/Week	Credits	Total Marks
1	SEC1	3/4/5	3	75
2	VAC2	3	3	75
3	VAC3	3	3	75
4	DSC A5	4	4	100
5	DSC A6	4	4	100
6	DSC A7	4	4	100
	Total	21/22/23	21	550

V SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	SEC2	3/4	3	75
2	DSC A8	4	4	100
3	DSC A9	4	4	100
4	DSC A10	4/5	4	100
5	DSE A11-elective-1	4/5	4	100
6	DSE A12-elective-2	4/5	4	100
	Total	23/25	23	575

VI SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	SEC3	3/4	3	75
2	DSC A13	4/5	4	100
3	DSC A14	4/5	4	100
4	DSC A15	4	4	100
5	DSE A16-elective-3	4	4	100
6	DSE A17-elective-4	4	4	100
7	Internship		2	50
	Total	23/25	23	625

4) *Double major pathway*: A and B represent the courses offered by the two departments. Students should choose one of the disciplines as their major 1 and the other as major 2

I SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	AEC1 (English)	4	3	75
2	AEC2 (Additional Language)	3	3	75
3	MDC A/B	3	3	75
4	DSC A1	4/5	4	100
5	DSC A2	4/5	4	100
6	DSC B1-minor-1	4/5	4	100
	Total	22/25	21	525

II SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	AEC2 (English)	4	3	75
2	AEC3 (Additional Language)	3	3	75
3	MDC A/B	3	3	75
4	DSC A3	4/5	4	100
5	DSC B2-minor-2	4/5	4	100
6	DSC B3-minor-3	4/5	4	100
	Total	22/25	21	525

III SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	MDC A/B	3	3	75
2	VAC A/B	3	3	75
3	DSC A4	4	4	100
4	DSC A5	4/5	4	100
5	DSC B4-minor-4	5	4	100
6	DSC B5-minor-5	4/5	4	100
	Total	23/25	22	550

IV SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	SEC A/B	3/4	3	75
2	VAC A/B	3	3	75
3	VAC A/B	3	3	75
4	DSC A6	4/5	4	100
5	DSC A7	4/5	4	100
6	DSC B6-minor-6	4/5	4	100
	Total	22/25	21	550

V SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	SEC A/B	3	3	75
2	DSC A8	4/5	4	100
3	DSC A9	4/5	4	100
4	DSE A10	4/5	4	100
5	DSC B7-minor-7	4/5	4	100
6	DSE B8-minor-8	4/5	4	100
	Total	23/25	23	575

VI SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	SEC A/B	3	3	75
2	DSC A11	4/5	4	100
3	DSE A12	4/5	4	100
4	DSC B9-minor-9	4/5	4	100
5	DSC B10-minor-10	4/5	4	100
6	DSE B11-minor-11-elective	4/5	4	100
7	Internship		2	50
	Total	23/25	23	625
On completion of 3-year UG Student will get 68 credits in major A (48 + 18+2 = 68 (50% of 133)) and 53 credits in Major B (44 + 9 = 53 (40% of 133))				

STUDENT CAN EXIT WITH UG DEGREE / PROCEED TO FOURTH YEAR WITH MINIMUM 133 CREDITS.

VII SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	DSC A1	4/5	4	100
2	DSC A2	4/5	4	100
3	DSC A3	4/5	4	100
4	DSC A4	4/5	4	100
5	DSC A5	4/5	4	100
	Total	20/25	20	500
VIII SEMESTER				
Sl No.	Course	Hours/Week	Credits	Total Marks
1	DSC A6	4	4	100
2	DSC A7	4	4	100
3	DSC A8	4	4	100
OR				
4	KU8RPHECO402 Research Project (in Honours with Research Programme)		12	300
OR				

5	KU8RPHECO401	Project (in Honours Programme)		8	200
6	Any one DSC from A6-A8		4	4	100
OR					
7	KU8RPHECO403(Project for Honours)			12	300
	Total			12	300
<p>ELECTIVES: Three elective courses are compulsory for Honours and Honours with Research Programmes. For Honours with research Programme one must be KU8RPHECO402</p> <p style="text-align: center;">Research Project (in Honours with Research Programme.</p>					
8	DSE A1		4	4	100
9	DSE A2		4	4	100
10	DSE A3		4	4	100
OR					
11	DSC B1	From any discipline/ any three disciplines		4	100
12	DSC B2			4	100
13	DSC B3			4	100
<p>Two of these courses can be in the online mode. These online courses can be taken either in semester VII or in semester VIII, but their credits shall be added to the student's account only in semester VIII. For those students who go to another institution for doing the Project, all these three courses can be in the online mode or in the in-person mode from the institution where the Project is being done.</p>					
	Total		12	12	300

KU5DSCECO301: INTERNATIONAL ECONOMICS

Semester	Course Type	Course Level	Course Code			Credits	Total Hours
V	DSC-Major	300-399	KU5DSCECO301			4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)	
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total		
4	-	-	30	70	100	2	

Course Description:

This course provides a comprehensive understanding of the principles and complexities of international economics. It covers the nature, scope, and significance of international trade and the key theories that explain trade patterns and policies. Moreover, the syllabus introduces various analytical tools and models to understand the dynamics of international trade, foreign exchange markets, and balance of payments.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Students will recall key concepts and theories related to international economics including traditional and modern trade theories	R
2	Students will explain the differences between internal and international trade and interpret various analytical tools used in international economics	U,An
3	Students will apply international trade theories and policies to analyse real-world trade patterns and issues.	A
4	Students will examine the factors contributing to balance of payments equilibrium and disequilibrium and analyse the effects of different trade policies.	Analyse (An)
5	Students will critically evaluate the implications of trade theories and policies on economic growth and development	E,C

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

CO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7

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CO 1	✓					✓	
CO 2	✓	✓	✓	✓			
CO 3	✓	✓	✓				
CO 4	✓	✓	✓				
CO 5			✓		✓	✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
		INTRODUCTION TO INTERNATIONAL ECONOMICS	10
1	1	International economics-Nature, scope, subject matter and importance.	3
	2	Differences between internal and international trade.	2
	3	Various tools in international theory	
		a) linear and non-linear Production Possibility curve,	2
		b) Community indifference Curve	2
		c) Offer curve	1
		THEORIES OF INTERNATIONAL TRADE	15
2	1	Traditional theories-	
		a) Adam smith's absolute advantage theory,	2
		b) Ricardos comparative advantage,	2
		c) Gottfried Haberle's opportunity cost theory	4
	2	Modern theories-	
		a) Theory of Reciprocal Demand	3
		b) Heckscher-Ohlin Theory and Leontief Paradox.	4
3		TRADE RELATED POLICIES	15

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	1	Terms of Trade – Terms of trade and its importance, classification of TOT	3
	2	Commercial policy – Free trade vs protection	3
	3	Methods of trade restrictions	
		a) Tariff barriers and non-tariff barriers	2
		b) Types of tariffs, effect of tariff	3
	c) Methods of non-tariff barriers – Quotas, Export subsidies, Voluntary Exchange restraints, international cartels, Dumping, technical, administrative and other measures.	4	
4	FOREIGN EXCHANGE AND BALANCE OF PAYMENT		10
	1	Foreign Exchange – Foreign exchange market and its structures.	1
	2	The foreign exchange rate fixed and flexible	1
	3	Theories of exchange rate Termination,	
		a) The Mint Parity theory	1
		b)The Purchasing Power Parity theory,	1
		c)Demand and supply analysis	1
	4	Balance of Trade and Balance of Payments	
		a) Meaning and definition	1
		b) Structure of BOP- Current account and Capital account	1
		c) Balance of payment equilibrium and disequilibrium	2
	d) Causes of disequilibrium – corrective measures- automatic and deliberate measures	2	
5	TEACHER SPECIFIC MODULE		10
	This module may be meant for teaching the concept of Global Value Chains, understanding how production processes are fragmented and distributed across different countries. This topic will cover the roles of various nations in different stages of production, the economic benefits and challenges of GVCs, and their impact on international trade and global economic integration.		

Essential Readings:

1. Rana and Verma: (2009) International Economics (Fifth edition) Vishal Publishing Co- New Delhi
2. Cherunilam Francis: 2006) International Economics (5th Edition) Tata McGraw-Hill Companies.

Reference Distribution:

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Module	Unit	Reference No.	Remarks
1	1	Essential Readings: 1	
	2	Essential Readings: 1	
	3	Essential Readings: 1	
2	1	Essential Readings: 1/2	
	2	Essential Readings: 1/2	
3	1	Essential Readings: 1/2	--
	2	Essential Readings: 1/2	--
	3	Essential Readings: 1/2	--
4	1	Essential Readings: 1/2	--
	2	Essential Readings: 1/2	--
	3	Essential Readings: 1/2	
	4	Essential Readings: 1/2	--

Suggested Readings:

1. Sodersten, Bo and Reed. G. (2005), International Economics, 3rd edition, Mc Millian Press Ltd.– International Economics.
2. Dominic Salvatore, (Recent Edition), International Economics: Trade and Finance, John Wiley and Sons, Limited.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	6
g)	Field Report	-
Total		100

KU5DSCECO302: HETERODOX ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSC	300-399	KU5DSCECO302		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course aims at providing a variety of perspectives outside the established orthodoxy and neo-classical economics. Students may get an opportunity to familiarise different perspectives in terms of economic theory, method and policy against the backdrop of pluralism. The course shall also enhance and diversify knowledge profile of students and provide a sound base to pursue higher education and research in heterodox economics. Further, the study of heterodox economics provides space for critical thinking, epistemological relativity and ontology which, *inter alia*, are the important pillars of heterodox knowledge production.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	This course shall provide an alternative to mainstream economics and thereby students may get an opportunity to familiarise different perspectives of and approaches to economic analysis based on pluralism in economic theory.	U,A, An
2	The course content shall strengthen the knowledge profile of students by familiarising different perspectives of economic theory and policy.	U,A, An
3	Such an exposure shall enhance and diversify the knowledge profile of students and may get opportunities to pursue higher education and research by employing theory and method of heterodox economics.	A, An,E
4	This course seeks to cultivate analytical and critical skills relevant to development policy and other methods relevant to address development challenges such as inequality, discrimination, and corruption.	A, E
5	The course shall also provide an opportunity for students to apply heterodox economic policies for stabilisation and development	U,A, An and E

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

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Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓			✓			
CO 2		✓			✓		
CO 3			✓				✓
CO 4			✓			✓	
CO 5	✓			✓			

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	FROM ORTHODOXY TO HETERODOXY		10
	1	Orthodox, Mainstream and Neo-classical economics: A brief overview.	3
	2	Equilibrium-Paradigm Blindness-Market and Market Failure-Information Asymmetry-Role of Institutions.	3
	3	Heterodox Economics: History, Concept, Nature, Scope and Principles.	4
2	THEORY AND METHOD		16
	1	Central Theoretical Cores in Heterodox Economics: Social Provisioning-Social Surplus Approach-Accumulation-Effective Demand-Theory of Monetary Production.	4
	2	A brief outline of Heterodox Micro, Macro, Development and International Economics.	4
	3	Methodology of Heterodox Economics: Philosophical foundation-Pluralism- Evolutionary Perspective-Institutional base-Critical Realism-Epistemological Relativism-Ontology.	4
	4	Teaching (heterodox) Economics.	2
	5	Challenges to Heterodox Economics.	1
	6	Future of Heterodox Economics	1
3	HETERODOX ECONOMICS: EARLY AND NEW PERSPECTIVES (BRIEF OVERVIEW)		14
	1	Early perspectives- Marxian Economics-Institutional Economics.	3

	2	Keynesian Economics- Post-Keynesian economics.	3
	3	Basic Contributions of Piero Sraffa- Michael Kalecki- Joan Robinson- Hyman Minsky-and Frederic Steve Lee to economic theory.	3
	4	New Heterodox Economic Perspectives: Evolutionary Economics-Social Economics-Complexity Economics -Experimental Economics-Behavioural Economics- Feminist Economics– Ecological Economics-Radical Political Economics- Humanistic Economics- Green Economics.	5
	INDIAN HETERODOX ECONOMICS		10
4	1	Indian Heterodox Economics: History and Growth-	2
	2	Some Leading Indian heterodox Economists and their contributions:	8
		a)Amartya Sen-Sukhamoy Chakravarty-Krishna Bharadwaj-Amiya Kumar Bagchi-	
	b)Meghanad Desai-Amit Bhaduri-Ajit Singh-Prabhat Patnaik.		
	TEACHER SPECIFIC MODULE		10
	<i>Directions</i>		
	<i>Note: Students may be encouraged to prepare and submit Seminar Papers and Assignments/Book Reviews largely based on the contributions/ writings of Karl Marx, Thorstein Veblen, J M Keynes, Michael Kalecki, Piero Sraffa, Joan Robinson, Hyman Minsky and F S Lee</i>		

Essential Readings:

1. Dequech, David (2008) Neo-classical, Mainstream, Orthodox and Heterodox Economics, *Journal of Post-Keynesian Economics*, Vol.30, No.2 (Winter 2007-2008) pp.279-302.
2. Dequech, David (2012) Post-Keynesianism, Heterodoxy and Mainstream Economics, *Review of Political Economy*, April, 2012, Vol.24, No.2, pp. 353-368
3. Lawson, Tony (2006) The Nature of Heterodox Economics, in *Cambridge Journal of Economics*, Vol30. No.2, pp.483-507.
4. Lawson, Tony (2004) A Conception of ontology, Mimeo. University of Cambridge. Availableat http://www.csog.group.cam.ac.uk/A_Conception_of_Ontology.pdf
5. Estey, James Arthur (1936) Orthodox Economic Theory: A Defence, *The Journal of Political Economy*, XLIV (6)pp. 791-802, Diciembre de
6. Lee, F. (2009). A History of Heterodox Economics: Challenging the Mainstream in the Twentieth Century. Routledge.
7. Jo, T. H., Chester, L., & D'Ippoliti, C. (Eds.). (2017). The Routledge Handbook of Heterodox Economics. London. Part I and II pp 3-145 and part IV pp. 513-533
8. Albelda, R (2016). Alternatives to Economic Orthodoxy: Reader in Political Economy: Routledge.
9. Lawson, Tony (1997) Economics and Reality. London: Routledge
10. Goldstein Jonathan P and Michael G Hillard (2009) Heterodox macroeconomics: Keynes, Marx and Globalisation, Routledge. Ch 4 Methodology and Heterodox Economics, pp 54-65
11. Mearman, A., Berger, S., & Guizzo, D. (2019). What is Heterodox Economics? Conversations with Leading Economists. Routledge.
12. Fischer, L., Hasell, J., Proctor, J. C., Uwakwe, D., Perkins, Z. W., & Watson, C. (Ed.2017).Rethinking Economics: An Introduction to Pluralist Economics. Routledge.

13. Jo, T. H., Chester, L., & D'Ippoliti, C. (Eds.). (2017). The Routledge Handbook of Heterodox Economics. London.
14. Lee, Frederic Steve (2014) Microeconomic Theory: A Heterodox Approach, London: Routledge
15. Lee, F S and T.H Jo (2011) Social Surplus Approach and Heterodox Economics, **Journal of Economic Issues** 45(4) pp. 857-875
16. Jo, T. H., & Lee, F. (Eds.). (2015). Marx, Veblen, and the Foundations of Heterodox Economics: Essays in Honour of John F. Henry. Routledge.
17. Ashokan, A (2021) An Introduction to Heterodox Economics, Kairali Books, Kannur
18. . Mearman, A., Berger, S., & Guizzo, D. (2019). What is Heterodox Economics? Conversations with Leading Economists. Routledge.
19. Heilbroner, R. L. (2011). The Worldly Philosophers: The Lives, Times and Ideas of the Great Economic Thinkers. Simon and Schuster.
20. Lavoie, Mark (2014) Introduction to Heterodox and Post-Keynesian economics, University of Ottawa
21. Shackleton, J A and Locksley Gareth (Ed.1981) Twelve Contemporary Economists, Palgrave, Macmillan.
22. Slaughter, Cliff (2000) Marx and Marxism, Orient Longman
23. Sen, Sunanda (2016) Evolution of Heterodox Economics Ideas in India
24. Ashokan, A (2024) Indian Heterodox Economics: History and Growth (Forthcoming).
25. Reardson, Jack (2009) The Handbook of Pluralistic Economics Education, London: Routledge (chapters: 1, 4, 5 &7)

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1.1	1,2,5	
	1.2	13, 14	
	1.3	3,6, 7, 8,18	
2	2.1	9,11,13,15	
	2.2	14,17	
	2.3	10,13,17	
	2.4	4,7,9,10,25(ch:7)	
	2.5	7,8	
	2.6	7,8	
3	3.1	16,19,21	--
	3.2	20	--
	3.3	17,21	--
	3.4	17,19	
4	4.1	17,23,24	--
	4.2	17,23,24,25	--

Suggested Readings:

1. Edward Fullbrook (Ed. 2009) Ontology and Economics. London: Routledge (Chapters 3, 5, 6)
2. Hausman, Daniel(1984) The Philosophy of Economics: An Anthology, Cambridge University Press(Chapters 4,5,15,22 & 23)

Assessment Rubrics:

Evaluation Type	Marks
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End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	4
f)	Viva-Voce	4
g)	Field Report	
Total		100

KU5DSCECO303: STATISTICAL TOOLS FOR ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSC	300 - 399	KU5DSCECO303		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course aims to equip students with the essential statistical tools and techniques for understanding and analysing economic phenomena. The course covers a range of topics such as correlation, regression, index numbers and time series analysis with a focus on applications in economics. The course also covers topics such as probability, sampling distribution and hypothesis testing.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Understand the fundamental statistical concepts discussed in the course	R, U
2	Analyse the relationship between variables using the techniques of correlation and regression	An
3	Estimate index number using appropriate method	U, A
4	Understand the concept of probability and solve problems	U, A
5	Comprehend the basics of hypothesis testing	R, U

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs							
CO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1			✓				✓
CO 2	✓		✓				

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CO 3	✓		✓				
CO 4			✓				
CO 5	✓		✓				✓

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
		CORRELATION AND REGRESSION	10
1	1	Meaning and types of correlation - Measures of correlation (Graphical, Karl Pearson's coefficient and rank correlation coefficient)- Properties of correlation coefficient- Use examples from economics for computation.	5
	2	Meaning and types of regression- Methods of estimation (Scatter diagram & methods of least square). Estimating simple regression function using examples from economics (Consumption function, saving function, production function etc.). Relationship between correlation and regression.	5
		INDEX NUMBERS AND TIME SERIES	15
	1	Meaning and types of index numbers-Uses of index number- Problems in the construction of index number	2
2	2	Laspeyre's, Paasche's, Marshall-Edgeworth, Bowley's and Fisher's indices. Tests of index numbers. Shifting the base and splicing. Consumer Price Index (CPI), Wholesale Price Index (WPI), Index of Industrial Production (IIP).	5
	3	Meaning and definition of time series- Components of a time series- Approaches to time series analysis	3
	4	Methods of estimating trend and seasonal variation	5
		THEORY OF PROBABILITY	15
3	1	Basic concepts of probability- Random experiment, outcome, discrete and continuous random variable, sample point, sample space, sample events and types- Permutations and combinations.	3
	2	Classical, relative frequency and subjective approaches to defining probability	2
	3	Additive, conditional probability and multiplication rules of probability and problems based on the rules. Bayes' theorem and problems.	6
	4	Conceptual introduction of Binomial, Poisson and Normal distribution- Standard normal curve and its properties.	4

4	SAMPLING DISTRIBUTION AND BASICS OF HYPOTHESIS TESTING		10
	1	Population and sample- Sampling- Need for sampling -Random and non-random sampling methods- Sampling and non-sampling errors.	4
	2	Parameter and statistic- Meaning and definition of sampling distribution- Sampling distribution of mean- Central limit theorem.	3
	3	Meaning and definition of hypothesis- Null and alternative hypothesis- Level of significance, Degrees of freedom, Type I &II error, one tailed and two tailed tests, p- value- Procedure of hypothesis testing.	3
5	TEACHER SPECIFIC MODULE		10
	<i>Directions:</i> Works based on analytical questions at the end of the modules from any of the essential reading suggested in the syllabus.		
	The module would be preferably set by giving emphasise to exercises on the modules in the syllabus or any other theme which would make learning the course better experience to the learners.		10

Essential Readings:

1. Doane, D. P., & Seward, L. E. (2022). Applied statistics in business and economics. McGraw Hill.
2. Freedman, D., Pisani, R., & Purves, R. (2007). *Statistics*. W.W. Norton & Company.
3. Hooda, R. P. (2013). *Statistics for business and economics*. Vikas Publishing House.
4. Whitte, R. S., & Whitte, J. S. (2017). *Statistics*. Wiley.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Readings 2, 4	-
	2	Essential Readings 1, 2, 4	-
2	1	Essential Readings 3	-
	2	Essential Readings 3	-
	3	Essential Readings 1, 3	-
	4	Essential Readings 1, 3	-
3	1	Essential Readings 1, 3	-
	2	Essential Readings 3	-
	3	Essential Readings 1, 3	-
	4	Essential Readings 1, 3	-
4	1	Essential Readings 3	-
	2	Essential Readings 3, 4	-
	3	Essential Readings 4	-

Suggested Readings:

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1. Aczel, A. D., & Sounderpandian, J. (2008). *Business statistics*. McGraw Hill.
2. Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2018). *Statistics for business & economics*. Cengage.
3. Gupta, S. C., & Kapoor, V. K. (2020). *Fundamentals of mathematical statistics*. Sultan Chand & Sons.
4. Spiegel, M. R., & Stephens, L. J. (2008). *Schaum's outline of theory and problems of statistics*. McGraw-Hill.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment-(2)	10
d)	Seminar	8
e)	Book/ Article Review	-
f)	Viva-Voce	-
g)	Field Report	-
Total		100

KU5DSEECO301: CONTOURS OF ECONOMIC IDEAS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEECO301		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

The course endeavours to offer students a comprehensive understanding of the progression of economic thought, aiding them in comprehending the analytical principles and ideological frameworks established by prominent economists over time. It enables learners to grasp the nuanced ebb and flow within dominant paradigms Through an exploration of these scholars' works, students can glean valuable insights into the varied perspectives that have influenced both economic theory and policy over the years.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
CO 1	Evaluate similarities and differences across the schools/paradigms and Identify the main ideas of classical political economy	R,U,E
CO 2	Develop a comprehensive understanding of alternative economic theories and their critiques of classical political economy	C, U
CO 3	Analyze ideas of Neo-Classical Economics to scrutinize current economic phenomena and policy debates ..	An, A
CO 4	Evaluate Keynesian policies in light of post-Keynesian economic theory advancements..	An, E
CO 5	Assess the merits and limitations of contemporary economics in addressing major economic and social questions	E,A

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

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Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓			✓			
CO 2	✓		✓		✓		
CO 3	✓			✓			✓
CO 4	✓		✓		✓	✓	
CO 5	✓	✓		✓			

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS 60
1	THE PRE-HISTORY OF POLITICAL ECONOMY AND CLASSICAL ECONOMIC THOUGHT		12
	1	Significance of the study of economic Thought, Timescale of economic ideas, The pre-history of political economy.	2
		a) Mercantilism -Major tenets.	1
		b) Physiocracy- Major tenets -Quesnay’s Tableau Economique.	1
	2	The Classical School -.	2
		Adam Smith -Wealth of Nations- The Economic laws of a Competitive economy-Division of labour-The harmony of interest and Limited government -Economic Development.	
	3	Thomas Robert Malthus- Population Theory –Theory of profit and rent-Theory of market gluts.	1
	4	David Ricardo- Theory of value-Comparative advantage- Money and taxation -theory of Income Distribution and growth.	2
5	John Stuart Mill-Principles of Political Economy- reciprocal demand.	1	
6	J B Say – Say’s law of markets.	2	
2	CRITICS OF CLASSICISM :MARXIAN POLITICAL ECONOMY , MARGINALISM AND NEO –CLASSICISM-I		15
	1	Marxian Political Economy.	3

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	a) Marx's Critique of Classical Economics The Marxian methodology .The critique of capitalism and exploitation- Accumulation and expanded reproduction.	
	b) The laws of motion of capitalist society- The transformation of labour values into prices of production- A critical assessment.	
2	Marginalism and Neo –Classicisim	3
	a) The ‘Marginalist revolution’: an overview-classicism versus neo-classicism.	
3	William Stanley Jevons- subjective theory of value- Real cost and opportunity cost- notion of capital.	2
4	The Austrian school- Carl Menger- Value Theory-Economic Methodology-Friedrich Von Wieser- Exchange value and Natural value-Opportunity Cost - B’ohm-Bawerk- Theory of Capital and Interest.	5
5	Leon Walras- General equilibrium .Wilfredo Pareto-Law of Income Distribution,-Ordinal Utility,Pareto’s Optimality.	2
	NEO-CLASSICISM-II, KEYNESIAN AND POST-KEYNESIAN SCHOOLS	15
3	1 Alfred Marshall- Partial Equilibrium Analysis -Utility and Demand-Distribution of Income- -Internal versus External economies-Returns to Scale.	2
	2 A.C Pigou-Divergence between private and social cost and benefits-Economic welfare- Irving Fisher-Theory of Interest-Quantity Theory of Money.	2
	3 Institutionalism – Major Tenets -Thornstein Veblen – Theory of Leisure Class- Overview of new Institutionalism.	2
	4 Keynesian Revolution – Keynesian theory of Employment, Effective Demand, Underemployment equilibrium, Concept of Multiplier.	5
	5 Post Keynesian Developments: Monetarism, New -Classical Economics, -New-Keynesian Economics.	4
	CONTRIBUTIONS OF INDIAN ECONOMISTS AND LATEST NOBEL LAUREATES	8
4	1 Amartya Sen, contributions to welfare economics-social choice .inequality.	2
	2 Abhijit Banerjee-Experimental Approach to Alleviating Global Poverty.	2
	3 Jagadish Bhagavathi- International trade theory and economic development.	2
	4 Koushik Basu – Major economic ideas- contributions to economic development.	2
5	TEACHER SPECIFIC MODULE	10
	<i>Directions</i>	

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	<p>1, What causes Economic Crises? Neoclassical and New Keynesian interpretations/ Standard interpretation using Keynes/ Marxian theories of crisis/ Alternative Interpretations of the Crisis- Seminar/</p> <p>2 Mainstream & Heterodox Economics-group discussion/</p> <p>3. The Role of the State in Economics; Role of the state in historical perspective- Smith, Mill, Pigou, Coase, Keynes, Marx-Debate/</p> <p>4, What are the Causes of Unemployment - Neoclassical explanation for unemployment-Keynes and involuntary unemployment-Marx's reserve army labour-. Is full employment possible? Assignment/</p> <p>5. Indian Economists: Prepare Taxonomy (classifying contemporary Indian economists based on various criteria such as their theoretical frameworks, areas of specialization, policy perspectives, or contributions to economic thought and practice)</p> <p>6. Discussion-Latest Nobel Laureates- (very brief description) David Card, Joshua Angrist (2021) Philip H. Dybvig, Douglas W. Diamond, Ben S. Bernanke (2022) Claudia Goldin (2023)-give core ideas</p>	
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Essential Readings:

1. Stanley L Brue and Randy R Grant (2007) The history of economic thought, 7th edition, Thomson
2. Roncaglia A. (2006) The Wealth of Ideas. A History of Economic Thought. Cambridge University Press
3. Pressman, S. (2006) Fifty Major Economists. London ; New York: Routledge.
4. Hunt, E.K., & Lautzenheiser, M. (2011). History of Economic Thought: A Critical Perspective (3rd ed.).
5. Routledge. Olken, Benjamin A. "Banerjee, Duflo, Kremer, (July 2020) the Rise of Modern Development Economics." Scandinavian Journal of Economics 122, 3: 853-878
6. Koushik Basu (2010), Beyond the Invisible Hand: Groundwork for a New Economics, Princeton University Press, Princeton, Penguin edition for South Asia region, 2011
7. Bhaduri, Amit. (2010). A Contribution to the Theory of Financial Fragility and Crisis. Levy Economics Institute, The, Economics Working Paper Archive. 35. 10.2139/ssrn.1605151
8. Bhagwati, Jagdish N. and Panagariya, Arvind (2013) Why Growth Matters: How Economic Growth in India Reduced Poverty and the Lessons for Other Developing Countries, Faculty Books. 279.
9. <https://www.nobelprize.org/prizes/lists/all-prizes-in-economic-sciences>
10. Ernesto Screpanti and Stefano Zamagni (2005) ,An outline of history of economic thought, Oxford University Press

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential reading 1,2	
	2	Essential reading 1,2	
	3	Essential reading 1,2	
	4	Essential reading 1,3,4	
	5	Essential reading 1,3,4	
	6	Essential reading 3,10	
2	1	Essential reading 1,2	

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	2	Essential reading 2	
	3	Essential reading 2	
	4	Essential reading 3 ,1	
	5	Essential reading 1,3	
3	1	Essential reading 1,10	
	2	Essential reading 1	
	3	Essential reading 1,3	
	4	Essential reading 1,2,8	
	5	Essential reading 2,4	
4	1	Essential reading 1	
	2	Essential reading 5	
	3	Essential reading 8	
	4	Essential reading 6	
	5	Essential reading 7	
	6	Essential reading 9	

Suggested Readings:

1. Backhouse, R. (2024). *The Ordinary Business of Life: A History of Economics from the Ancient World to the Twenty-First Century*. (New Edition ed.) Princeton University Press.
<http://www.hetwebsite.net/het/>.
2. Niall Kishtain, “A Little History of Economics” (Yale University Press, 2017)
3. Roger Backhouse and Keith Tribe(2017) , “The History of Economics” ,Agenda Publishing, USA.
4. <http://www.nobel.se/economics/index.html>

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	
f)	Viva-Voce	6
g)	Field Report	
Total		100

KU5DSEECO302: ECONOMIC GEOGRAPHY

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEECO302		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course provides an in-depth exploration of Economic Geography, examining the spatial dimensions of economic activities, resource utilization, regional development, globalization, and contemporary issues shaping today's economic landscape. Through a blend of theoretical frameworks, case studies, and practical applications, students will gain a holistic understanding of how geography influences economic systems, patterns, and trends.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Gain a clear understanding of the definition, scope, and importance of economic geography	R, U
2	Explore the relationship between economic geography, economics, and other geographic subfields	R, U
3	Understand the spatial distribution of economic activities and the factors influencing their location.	R, U
4	Assess the impact of globalization on regional economies and strategies for promoting sustainable development	R, U, An

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓		✓		
CO 2	✓			✓		✓	
CO 3	✓			✓			✓

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CO 4	✓	✓			✓		
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COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS 60
1	INTRODUCTION TO ECONOMIC GEOGRAPHY		10
	1	Definition, Scope, and importance of economic geography	
	2	Key concepts and approaches to economic geography	
	3	Relationship with economics and other geographic subfields.	
	4	Classification of Economic Activities – Primary, Secondary and Tertiary	
2	RESOURCES AND ECONOMIC ACTIVITY		15
	1	Location of Economic Activity	
	2	Geographical bases of economic activities: Systematic and spatial	
	3	Agricultural Location theory of Von Thunen	
	4	Industrial Location Theory of A. Weber	
	5	Dynamic concept of Resource	
	6	Types of Resources (Natural, Manmade and Human).	
	7	Classification of Resources- Biotic & Abiotic, Renewable, Exhaustible & Inexhaustible	
8	Resource utilization - Patterns and problems		
3	REGIONAL DEVELOPMENT AND GLOBALIZATION		15
	1	Spatial inequalities and regional disparities	
	2	Theories of economic development and growth models (Limits to growth theory, core-periphery model).	
	3	The impact of globalization on regional economies	
4	Strategies for promoting sustainable development and inclusive development		
4	CONTEMPORARY ISSUES IN ECONOMIC GEOGRAPHY		10
	1	Transportation and Communication Infrastructure in Economic Development	
	2	The digital divide and its economic implications	
	3	Climate change and its impact on economic activity	
	4	The rise of knowledge-based economies and the role of innovation	
5	Geographic Information Systems (GIS)		

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	6	The future of work in a globalized world (automation, skills gap).	
5	TEACHER SPECIFIC MODULE		10
	This module can include a combination of lectures, discussions, case studies, and practical exercises to engage students and deepen their understanding of economic geography concepts and issues. Additionally, incorporating real-world examples and current events can help illustrate the relevance of economic geography in today's globalized world.		

Essential Readings:

1. Smith, Neil J. (2016). *Economic Geography*. Seventh Edition. Routledge.
2. Dicken, Peter. (2017). *World Economic Geography*. Third Edition. Oxford University Press
3. Sher Singh Parmar (2003) *Geography, Economics and Economic Geography*

Reference Distribution:

Module	Reference	Remarks
1	• Smith, Neil J. (2016). <i>Economic Geography</i> . Seventh Edition. Routledge.	-
	• Dicken, Peter. (2017). <i>World Economic Geography</i> . Third Edition. Oxford University Press	-
	• Harvey, David. (2006). <i>The Geography of Economics</i> . Third Edition. University of Pennsylvania Press	-
	• Sher Singh Parmar (2003) <i>Geography, Economics and Economic Geography</i>	-
2	• Beauregard, Robert A. (2016). <i>Place and the Economic Order</i> . Routledge.	-
	• Clark, Gordon L., Michael T. Feldman, and Martha Louise Crone. (2011).	-
	• Smith, Neil J. (2016). <i>Economic Geography</i> . Seventh Edition. Routledge.	-
	• Dicken, Peter. (2017). <i>World Economic Geography</i> . Third Edition. Oxford University Press	-
	• Scott, Allen J. (1998). <i>Foundations of Location Theory</i> . Edward Elgar Publishing	-
	• Sher Singh Parmar (2003) <i>Geography, Economics and Economic Geography</i>	-
3	• Smith, Neil J. (2016). <i>Economic Geography</i> . Seventh Edition. Routledge	-
	• Dicken, Peter. (2017). <i>World Economic Geography</i> . Third Edition. Oxford University Press	-
	• Sher Singh Parmar (2003) <i>Geography, Economics and Economic Geography</i>	-
4	• Susan L. Bryant (2002) <i>The Geography of the Digital Divide</i> "Bridging the Digital Divide: A Global Perspective" by The International Telecommunication Union (ITU) (2021 report) (https://www.itu.int/en/mediacentre/Pages/PR-09-2021-P2C-Bridging-Digital-Divide.aspx)	-

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<ul style="list-style-type: none">• "The Economic Risks of Climate Change" by The World Bank (2021 report) (https://www.worldbank.org/en/topic/climatechange/overview)	-
<ul style="list-style-type: none">• "How Countries Can Harness Innovation for Inclusive Growth" by The Organisation for Economic Co-operation and Development (OECD) (2019 report) (https://www.oecd.org/education/innovationeducation/1825293.pdf)	-
<ul style="list-style-type: none">• "The Future of Jobs Report 2020" by The World Economic Forum (WEF) (https://www.weforum.org/publications/the-future-of-jobs-report-2020/)	-

Suggested Readings:

1. Aishwarya Jain (2021) Economic Geography: A Contemporary Introduction
2. H M Saxena (2012) Economic Geography
3. T C Sharma (2013) Economic Geography of India
4. IEA Annual Conference (2011) Economic Geography and Development
5. Yuko Aoyama, James T Murphy, Susan Hanson (2010) Key Concepts in Economic Geography

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	6
g)	Field Report	-
Total		100

KU5DSEECO303: AGRICULTURAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEECO303		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course provides an overview of Agricultural Economics, focusing on its meaning, scope, and the role of agriculture in economic development. It delves into various models of agricultural development and production economics, examining production functions, supply and demand behaviour, decision-making under risk and uncertainty, and the technological and institutional changes in Indian agriculture. Additionally, it analyses the agricultural scenario in the specific context of Kerala, including performance, income trends, organic farming, and the impact of globalization on agrarian distress. At the end of the course the students will be equipped with analytical skills to assess and address challenges in agricultural production, management, and policy formulation.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Students will gain a deep understanding of agricultural economics, including its meaning, scope, and the pivotal role agriculture plays in economic development.	U
2	Analyse and compare various models of agricultural development proposed by prominent scholars, enabling them to understand the complexities of agricultural transformation and growth.	An
3	Develop proficiency in production economics, including the analysis of production functions, supply-demand behaviour, and decision-making under conditions of risk and uncertainty in agricultural settings.	A, An, E
4	Evaluate the impact of technological advancements and institutional changes on Indian agriculture, enabling them to assess the effectiveness of policies and interventions aimed at promoting agricultural development.	E

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5	Gain insights into the specific agricultural challenges and opportunities present in Kerala, including trends in agricultural income, the impact of globalization, and the importance of organic farming.	U, An E
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**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓				
CO 2	✓	✓					
CO 3		✓			✓		
CO 4					✓		
CO 5			✓	✓		✓	✓

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOUR S 60
1	INTRODUCTION TO AGRICULTURAL ECONOMICS		14
	1	Themes in Agricultural Economics	4
		a) Meaning, Nature and Scope of Agricultural Economics	
		b) Role of Agriculture in economic development	
		c) Linkage between Agriculture and other sectors	
	2	Models of Agricultural Development	10
		a) Von Thunen's theory of Agricultural Location	
		b) Schultz's Thesis of transforming traditional agriculture	
	c) Mellor's theory of agricultural development		
	d) Boserup's theory of agricultural development		
	e) Lewis model of economic development		
	e) Fei-Ranis model of agricultural development		
2	AGRICULTURAL PRODUCTION ECONOMICS		16
	1	Production Function in Agriculture	6
		a) Law of Diminishing Returns	
		b) Cobb Douglas Production Function	
	2	Supply and Demand Behaviour	6
		a) Determinants of supply and demand behaviour	
	b) Cob-Web Theorem		

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		c) Nerlovian Model of Supply	
	3	Decision making in an Environment of Risk and uncertainty in Agriculture	
		a) Sources of risk and measures to manage farm risk	4
		a) Types of uncertainty in agriculture	
		b) Strategies for Dealing with Risk and Uncertainty	
		AGRICULTURAL DEVELOPMENT IN INDIA	10
3	1	Technological changes in Indian agriculture	4
		a) White Revolution	
		b) Green Revolution	
		c) Evergreen Revolution.	
		d) ICT and Agriculture	
	2	Institutional Changes in Indian Agriculture	3
		a) Agrarian and credit institutions	
		b) Contract and corporate farming	
	3	The New Economic policy and Indian Agriculture	3
		a) WTO agreements on Indian agriculture	
a) Trade liberalisation and Agricultural Exports			
4	1	AGRIBUSINESS MANAGEMENT	10
		a) The Key Functions of Management in Agribusiness	2
		b) Marketing management	2
		c) Financial management	2
		d) Supply chain management for agribusiness-objectives, Functions, forecasting demand	3
		e) Managing human resources in agribusiness-Scope and Functions	1
		TEACHER SPECIFIC MODULE	10
5		<p><i>This module may focus on to</i></p> <ul style="list-style-type: none"> • Explore current trends and practices in sustainable agriculture, • The impact of climate change on agricultural production, crop yields, and food security • Explore the role of technology in modern agriculture, including precision farming techniques, remote sensing, and agricultural drones. • The teacher can incorporate hands-on exercises, case studies, guest lectures from industry experts, and opportunities for students to apply their knowledge through research projects or data analysis assignments. 	

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Essential Readings and Reference Distribution:

Module	Unit	Reference No.
1	1	• Soni, R.N. (2013). <i>Leading Issues in Agricultural Economics</i> . Vishal Publishing Co.
		• Lekhi, R.K., & Singh, J. (2015). <i>Agricultural Economics: An Indian Perspective</i> . Kallyani Publishers
		• Kapila, Uma (2018). <i>Indian Economy Performance and Policies</i> . Academic Foundation, New Delhi.
	2	• Kapila Uma (2018). <i>Indian Economy Performance and Policies</i> . Academic Foundation, New Delhi.
		• Soni, R.N. (2013). <i>Leading Issues in Agricultural Economics</i> . Vishal Publishing Co.
		• Lekhi, R.K., & Singh, J. (2015). <i>Agricultural Economics: An Indian Perspective</i> . Kallyani Publishers
		• Schultz, T. W. (1965) <i>Transforming Traditional Agriculture</i> , New Haven, Yale University Press, London.
2	1	• David L. Debertin (2002). <i>Agricultural Production Economics</i> . Second Edition. Macmillan
	2	• Subba Reddy, S., Raghu Ram, P., Neelakannta Sastry, T.V., & Bhavani Devi, I. (2004). <i>Agricultural Economics</i> . Oxford & IBH Publishing Co. Pvt. Ltd.
		• Soni, R.N. (2013). <i>Leading Issues in Agricultural Economics</i> . Vishal Publishing Co.
	3	• Lekhi, R.K., & Singh, J. (2015). <i>Agricultural Economics: An Indian Perspective</i> . Kallyani Publishers.
		• David L. Debertin (2002). <i>Agricultural Production Economics</i> . Second Edition. Macmillan
	3	1
2		• Suresh Pal, Mruthyunjaya, Joshi, P. K., & Saxena Raka. (Ed). <i>Institutional Change in Indian Agriculture</i> . National Centre for Agricultural Economics and Policy Research.
3		• Puri, V.K., & Misra, S.K. (2013). <i>Indian Economy-Its Development Experience</i> . Himalaya Publishing House. Latest Edition
		• Soni, R.N. (2013). <i>Leading Issues in Agricultural Economics</i> . Vishal Publishing Co.

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4	1	<ul style="list-style-type: none">• Freddie L. Barnard., John Foltz., Elizabeth A. Yeager & Brady Brewer (2021) <i>Agribusiness Management</i>. Sixth Edition, Routledge Taylor & Francis Group, New York.
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Suggested Readings:

1. Economic Review. Kerala State Planning Board, Government of Kerala.
2. Oommen, M. A. (Ed.). (1999). *Rethinking Development, Kerala's Development Experience*

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	
f)	Viva-Voce	6
g)	Field Report	
Total		100

KU5DSEECO304: ECONOMICS OF GROWTH AND DEVELOPMENT

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEECO304		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course provides an in-depth exploration of the fundamental concepts, theories, and policies related to economic growth and development. Students will engage with the key distinctions between growth and development, examining the various determinants and measurements used to assess these phenomena. The course also delves into classical and contemporary theories of growth, offering a comprehensive understanding of both historical and modern perspectives. Additionally, it addresses the role of human resources, including the impact of education, health, and gender on economic development, and evaluates various policy approaches to promote sustainable growth.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Demonstrate familiarity with some central themes and issues of economic development	R, U
2	Demonstrate the difference between economic growth and development and the major growth theories.	R, U
3	Assess the potential effectiveness of various policies in combating economic development.	R, E
4	Explain the theories and factors in the Development process	R, U
5	Identify the role of education and health in economic development	R, U

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

COs-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓				✓		

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CO 2	✓		✓				
CO 3	✓		✓			✓	
CO 4	✓		✓		✓		
CO 5	✓						

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO GROWTH AND DEVELOPMENT		10
	1	Distinction between Growth and Development	
	2	Determinants of Growth and Development	
	3	Measurement of Growth and Development – PQLI; HDI; Gender Development Index; Gender Empowerment Index; Global Hunger Index	
	4	Sen’s Capability Approach	
2	THEORIES OF GROWTH AND DEVELOPMENT		18
	1	Theories of Adam Smith, David Ricardo and Malthus	
	2	Marx’s stages of Growth and Marxian theory of economic development	
	3	Schumpeter’s theory	
	4	Rostow’s stages theory	
	5	Big push theory	
	6	Critical minimum effort theory	
	7	Nelsons low level equilibrium trap theory	
	8	Lewi’s model of unlimited supply of labour	
	9	Theories of Nurkse, Vakil and Brahmananda	
	10	Balanced and Unbalanced growth theories	
	11	Harrod –Domar Growth models	
12	Solow - Swan Growth models		
3	POLICIES FOR DEVELOPMENT		12
	1	Role of monetary and Fiscal policies in economic development	
	2	Inward and outward oriented foreign trade policies and its impact on development	
	3	Role of industrial and agricultural policies on development	
	4	Role of foreign aid and foreign capital on economic development	

4	HUMAN RESOURCE AND DEVELOPMENT		10
	1	Man power planning	
	2	Role of education and health in economic development	
	3	Education and health as joint investment for development	
	4	Gender and development	
	5	Women in the labour force	
	6	Optimum theory of population	
7	Theory of demographic transition		
5	Teacher Specific Module		10
	This module includes interactive sessions that facilitate deep learning and critical thinking among students. Integrating case studies, group discussions, and real-world examples can enhance students' understanding and appreciation of the complex dynamics of economic development. Incorporate current events and policy decisions to make the subject matter relevant.		

Essential Readings:

1. Todaro, M. P., & Smith, S. C. (2020). *Economic development* (13th ed.). Pearson Education. ([Stuvia](#))
2. Ray, D. (2012). *Development economics*. Oxford University Press.
3. Thirlwall, A. P. (2006). *Growth and development: With special reference to developing countries* (8th ed.). Palgrave Macmillan.
4. Kapila, U. (2017). *Indian economy: Performance and policies* (17th ed.). Academic Foundation.
5. Misra, S. K., & Puri, V. K. (2023). *Economics of development and planning: Theory and practice* (19th ed.). Himalaya Publishing House. ([himpub.com](#))

Reference Distribution:

Module	Reference	Remarks
• 1	• Thirlwall, A. P. (2006). <i>Growth and development: With special reference to developing countries</i> (8th ed.). Palgrave Macmillan. (WorldCat).	•
	• Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson Education.	•
	• Misra, S. K., & Puri, V. K. (2023). <i>Economics of development and planning: Theory and practice</i> (19th ed.). Himalaya Publishing House.	•
• 2	• Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson Education.	•

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	• Misra, S. K., & Puri, V. K. (2023). <i>Economics of development and planning: Theory and practice</i> (19th ed.). Himalaya Publishing House.	•
	• Ray, D. (2012). <i>Development economics</i> . Oxford University Press..	•
• 3	• Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson Education.	•
	• Misra, S. K., & Puri, V. K. (2023). <i>Economics of development and planning: Theory and practice</i> (19th ed.). Himalaya Publishing House.	•
	• Ray, D. (2012). <i>Development economics</i> . Oxford University Press	•
• 4	• Todaro and Smith, <i>Economic Development</i> , Pearson Education, New Delhi.	•
	• Debraj Ray, <i>Development Economics</i> . Oxford University Press, NewDelhi.	•
	• Kapila, U. (2017). <i>Indian economy: Performance and policies</i> (17th ed.). Academic Foundation.	•

Suggested Readings:

1. Agarwal, R. C. (2018). *Economics of development and planning: Theory and practice*. Lakshmi Narain Agarwal Educational Publishers.
2. Higgins, B. H. (1968). *Economic development : Principles, problems and policies*. Universal Book Stall.
3. Meier, G. M., & Rauch, J. E. (2005). *Leading issues in economic development* (8th ed.). Oxford University Press.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	6
g)	Field Report	-
Total		100

KU5SECECO301: EXPERIENCING INDIAN STOCK MARKET

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	SEC	300-399	KU5SECECO301		3	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	25	50	75	
						1.5

Course Description:

The course aims to equip the participants with necessary practical application expertise along with theoretical understanding in stock market analysis. Students can apply the same for wealth creation through investment in equity markets and also for research purposes. The course introduces students to capital market, equity analysis and investment. It will equip them to: understand the risk-return profiles of various asset classes, set financial goals, do asset allocation and implement the appropriate asset allocation strategies. It will equip the students with the competence to make good investment decisions. This course will give students a brief, but broad introduction to the capital markets - the primary and secondary markets, investors, intermediaries, regulators, securities traded, trading mechanism, risk and return, fundamental and technical analysis etc.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
CO 1	Evaluate the structure and function of the stock market, including primary and secondary markets, and synthesize knowledge of Indian stock market exchanges (NSE, BSE, MCX) and SEBI regulations.	An, E
CO 2	Critically analyze company financial statements and valuation methods to assess company performance and investment potential	An, E
CO 3	Analyze technical indicators, including lagging (moving averages, ADX) and leading (momentum, RSI) indicators, and synthesize these interpretations to guide trading decisions.	An, E
CO 4	Assess and apply market analysis software tools, participate in simulated trading sessions, and conduct real-world analysis guided by industry and stock market experts.	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

CO -	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓	✓				
CO 2		✓	✓	✓			
CO 3		✓	✓			✓	
CO 4		✓		✓	✓	✓	

COURSE CONTENT

Contents for Classroom Transaction

M O D U L E	U N I T	DESCRIPTION	HOUR S
		BASICS OF PRACTICAL GUIDANCE TO STOCK MARKET	9
1	1	a) What is stock market: Primary and secondary market, Indian stock marketes (NSE BSE, MCX), Regulatory framework (SEBI rules) -	4
		b) Financial instruments: Equity shares, bonds, mutual funds, exchange traded funds (ETFs), derivatives	
1	2	STOCK MARKET TERMINOLOGIES	5
		: Bid, Ask/Offer, Spread, Broker, Yield, Volatility, Lot size, Bull and bear market, IPO, Market capitalization, Portfolio, Dividends, Short selling, Intraday trading, Delivery, Market order, Limit order, Stop-loss order, Demat account, Listing of securities	
		FUNDAMENTAL ANALYSIS (including practical sessions)	14
2	1	Economic and Industry analysis	6
		Company analysis and valuation-- Understanding financial statements (balance sheet, cash flow statement etc)	
	2	a) Analysis of important financial ratios with interpretation-- price-earning ratio-- price book ratio --return on capital employed-- return onequity--dividend yield(numerical problems and case analysis)	8
b) Introduction to mutual funds ,hedge funds and insurance			
		TECHNICAL ANALYSIS (including practical sessions)	17

3	1	a) Principles of technical analysis--Chart types(line charts, bar charts,candle stick charts) and patterns (reversal, consolidation and trend patterns) with interpretation	9
		b) Technical indicators: lagging indicators such as moving averages and Average directional index (ADX)--- leading indicators (oscillators) such as momentum, Relative strength index (RSI) with interpretation	
	2	a) Volume analysis-- volume and trends--volume and chart pattern--volume interpretation	8
		b) Trading psychology including biases (anchoring bias, overconfidence bias, confirmation bias , loss aversion and herd instinct) and risk management - Numerical problems and Case analysis wherever possible	
TRADING MECHANISM AND PRACTICAL APPLICATION			10
4	1	Depositories, NSDL, CDSL-Clearing and settlement process - Construction of Stock market indices-- SP BSE index, CNX Nifty index - Market analysis software tools such as NSE--Simulated trading sessions--Real world analysis (classes by industry and stock market experts)	
5		Teacher Specific Module Directions	10
		<ul style="list-style-type: none"> • Visual Aids: Show live data from NSE/BSE websites • Students simulate an IPO process or track stock prices for a week. • Discuss articles Financial newspapers (The Economic Times, Business Standard) • Case Discussion: Compare two industries (e.g., FMCG vs IT) using Porter’s model. • Practical Exercise: Students analyze financial statements from company annual reports 	

Essential Readings:

1. Pilbeam, K. (2018). *Finance and financial markets* (4th ed.). Bloomsbury Academic / Red Globe Press. (for unit 1.1 and 1.2)
2. Galagedera, D. U. A. (2007). A review of capital asset pricing models. *Managerial Finance*, 33(10), 821-832. doi: 10.1108/03074350710779269 (for 1.3)
3. NSE Academy. (2024). *Study material (E-workbook & LMS) for NCFM modules*

Reference Distribution:

Module	Unit	Reference No.	Remarks
	1		

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1	2	Essential Reading 1, 2	
2	1	Essential Reading 1, 2, 3	
	2		
3	1	Essential Reading 1,2,3	
	2		
4	1	Essential Reading 1, 2, 3	

Suggested Readings:

1. Macedo, L. M. L. (2018). *An Inquiry into the Validity of Technical Analysis in Financial Markets with the Use of Evolutionary Techniques* (Doctoral dissertation, Universidade de Coimbra (Portugal)).
2. Lo, A. W., Mamaysky, H., & Wang, J. (2000). Foundations of technical analysis: Computational algorithms, statistical inference, and empirical implementation. *The journal of finance*, 55(4), 1705-1765.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation Theory		35
End Semester Evaluation-Practical		15
End Semester Evaluation-Total		50
Continuous Evaluation Theory		15
a)	Test Paper- 1	5
b)	Test Paper-2	5
c)	Assignment	5
d)	Seminar	
e)	Book/ Article Review	-
f)	Viva-Voce	-
Continuous Evaluation-Practical Field/ Practical Report		10
Continuous Evaluation-Total		25
Total		75

KU5SECECO302: LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	SEC	300-399	KU5SECECO302		3	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	25	50	75	1.5

Course Description:

This course provides an overview of logistics management principles and practices. It covers the fundamental concepts, tools, and techniques necessary for effective management of logistics operations in various industries. Topics include supply chain management, inventory control, transportation management, warehousing, and distribution.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Basic concepts in logistics and supply chain management	U
2	Analysing of different modes of transport and its cost efficiency	An, E
3	Analytical skills for solving real-world logistics problems	An, E
4	Ability to apply and evaluate industry best practices for sustainable logistics management	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

CO s-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓ □				
CO 2	✓					✓ □	

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CO 3		✓	✓		✓□		
CO 4	✓			✓□			

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO LOGISTICS MANAGEMENT AND SUPPLY CHAIN MANAGEMENT		15
	1	Introduction to Logistics Management and Supply Chain Management - Definition and scope of logistics management - Key functions and objectives of logistics -	
	2	Understanding the supply chain - Supply chain integration and coordination - Role of technology in supply chain management – Ease of doing business – National Logistics Policy	
2	INVENTORY MANAGEMENT & TRANSPORTATION MANAGEMENT		15
	1	Inventory Management & Transportation Management - Inventory types and classification - Inventory costs and trade-offs - Inventory control techniques (ABC analysis, EOQ, etc.) -	
	2	Modes of transportation (road, rail, air, sea) - Logistics costing - Transportation cost analysis - Routing and scheduling - First-in First out - Just-in-time concept	
3	1 WAREHOUSING AND DISTRIBUTION		20
	a)	Warehouse functions and types- Warehouse layout and design- Distribution strategies and channel management -	
	b)	Logistics Performance Measurement and Optimization Key performance indicators (KPIs) in logistics- Continuous improvement and optimization techniques- Case studies and real-world examples	

	2	SUSTAINABILITY IN LOGISTICS	
		a) Environmental impact of logistics operations - Green logistics practices- Regulatory compliance and corporate social responsibility – b) E- commerce logistics - Internet of Things (IoT) in logistics – Case Studies and Industry Applications - Analysis of real-world logistics challenges - Best practices and lessons learned from industry cases	
5	TEACHER SPECIFIC MODULE		10
		<ul style="list-style-type: none"> Supply Chain Mapping Project A visual supply chain map and a short written report (2–3 pages). Inventory Optimization and Transportation Simulation Using sample data, students perform ABC analysis and EOQ calculations, Warehouse Layout Design Case Study Students design a warehouse layout plan (either manually or using software like SketchUp/Excel grid The design must consider space utilization, material flow, and safety standards) . Green Logistics and E-commerce Case Analysis Students will analyze a real-world company (e.g., Amazon, DHL, or Maersk) implementing green logistics Student go for one day visit in local Logistics companies and prepare reports 	

Essential Readings and Reference Distribution:

1. Chopra, S., & Meindl, P. (2013). *Supply chain management: Strategy, planning, and operation* (5th ed.). Pearson Education.
2. Christopher, M. (2016). *Logistics and supply chain management* (5th ed.). Pearson Education.
3. Coyle, J. J., Novack, R. A., Gibson, B., & Bardi, E. J. (2014). *Transportation: A supply chain perspective* (8th ed.). South-Western College Publishing.
4. Ghiani, G., Laporte, G., & Musmanno, R. (2013). *Introduction to logistics systems management* (2nd ed.). John Wiley & Sons.
5. Harrison, A., & van Hoek, R. (2019). *Logistics management and strategy: Competing through the supply chain* (6th ed.). Pearson Education.
6. McKinnon, A. C., Browne, M., Whiteing, A., & Piecyk, M. (2015). *Green logistics: Improving the environmental sustainability of logistics* (3rd ed.). Kogan Page.
7. Richards, G. (2021). *Warehouse management: A complete guide to improving efficiency and minimizing costs in the modern warehouse* (3rd ed.). Kogan Page.

Reference Distribution:

Module	Unit	Reference No.	Remarks
	1		

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1	2	Essential Reading 1, 2	
2	1	Essential Reading 1, 2, 3	
	2		
3	1	Essential Reading 5, 6	
	2		
4	1	Essential Reading 4, 6, 7	

Suggested Readings:

1. Agrawal, D. K. (2003). *Textbook of logistics and supply chain management*. Macmillan Publishers India Ltd. ([Google Books](#))
2. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2003). *Designing and managing the supply chain: Concepts, strategies and case studies*. McGraw-Hill. ([Google Books](#))
3. Altekar, R. V. (2005). *Supply chain management: Concepts and cases*. Prentice Hall of India. ([Barnes & Noble](#))

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation Theory		35
End Semester Evaluation Practical		15
Continuous Evaluation Theory		15
a)	Test Paper- 1	5
b)	Test Paper-2	5
c)	Assignment	
d)	Seminar	5
e)	Book/ Article Review	-
f)	Viva-Voce	-
Continuous Evaluation Practical		
a)	Field/Practical Report	10
Total		75

KU5SECECO303:READING ECONOMIC SURVEY AND UNION BUDGET

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	SEC	300-399	KU5SECECO303		3	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	25	50	75	1.5

Course Description:

The course seeks to familiarise students with basic concepts related to the Economic Survey and Union Budget. It aims to equip students with sufficient knowledge and skills to analyse these documents. This course also aim to equip students a competent participants in economic decision-making.

Course Prerequisite:

Previous knowledge about various governments functioning in national, state and local level.

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Develop the capability to understand government policies.	R, U
2	Understand and evaluate the process behind economic decision making by various levels of governments.	R, U,E
3	Analyse the Economic Survey and review documents.	A,An
4	Able to understand and apply the Union and State budget documents.	R, U

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓			✓			
CO 2		✓			✓		
CO 3			✓				✓
CO 4			✓			✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS 60
		UNION BUDGET -BASIC CONCEPTS	18
1	1	a) Fiscal policy - Capital and revenue expenditure; plan and non-plan expenditures	
		b) Deficits (fiscal, primary, revenue), impact of fiscal deficits on the economy	
		c) Capital receipts, revenue receipts; tax and non-tax revenue; direct and indirect taxes	
		d) Actual, revised and budget estimates	
		e) Fiscal devolution and center-state financial relations	
		THE INDIAN ECONOMIC SURVEY	14
2	1	Analysis of current report	
		a) State of the economy	
		b) Specific sectors – Agriculture, Industry, Service External Sector etc.	
		THE UNION BUDGET	12
3	1	the process of budget making in India	
		a) Major heads of revenue in latest Union budget	
		b) Major expenditure heads in latest Union budget and sectors that have received higher/lower shares of expenditure.	
		KERALA ECONOMIC REVIEW	6
4		a) Recent Trends in Macro-Economic Aggregates, State Finances	2
		b) Initiatives for social inclusion	2
		c) Kerala Infrastructure Investment Fund Board (KIIFB)	2
		TEACHER SPECIFIC MODULE	10
5		<ul style="list-style-type: none"> • Visit to State Planning Board, Budget Office, or KIIFB(-practical component) and present report – maximum 3 days of journey • Mock Budget Exercise: Students act as Finance Ministry teams preparing a “mini budget.” • Role Play: Centre–State negotiation on tax devolution. • Conduct data interpretation sessions using <i>Economic Survey</i> or <i>Union Budget</i> tables. 	

	• Data-based projects using RBI, MOSPI, and Budget data. -	
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Essential Readings:

1. Sury, M. M. (1997). *Government budgeting in India* (2nd ed.). Indian Tax Institute.
2. Chakraborty, P. (2015). Intergovernmental fiscal transfers in India: Emerging trends and realities. In P. Patnaik (Ed.), *Macroeconomics*. Oxford University Press
3. Ministry of Finance. (2025). *Economic Survey 2024–25*. Government of India. (<https://www.indiabudget.gov.in/economicsurvey/> The Hindu Centre+2India Budget+2 (Latest)
4. Ministry of Finance. (2024). *Union Budget 2024–25*. Government of India. (Latest)(<https://www.indiabudget.gov.in/budget2024-25/> India Budget+2India Budget+2
5. Kerala State Planning Board. (latest). *Economic Review*. Thiruvananthapuram, Kerala, India. <https://dspace.kila.ac.in/items/588db19f-05e2-4024-a196-fc8a01bccadb>

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1 & 2	
2	1	Essential Reading 3	
	1	Essential Reading 4	--
3	1	Essential Reading 4	--
4	1	Essential Reading 5	

Suggested Readings:

1. URL: <https://www.cbgaindia.org/publications>
2. Ministry of Finance. Finance commission report (latest). URL: <https://fincomindia.nic.in/commission-reports-fifteenth>
3. Ministry of Finance. Economic and social classification of the budget. URL: <https://dea.gov.in/other-reports/economic-and-functional-classification-central-government-budget>

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation Theory		35
End Semester Evaluation Practical		15
Continuous Evaluation Theory		15
a)	Test Paper- 1	5
b)	Test Paper-2	5
c)	Assignment	
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	
Continuous Evaluation Practical Field Report		10
Total		75

KU6DSCECO304: DEVELOPMENT ISSUES OF INDIAN ECONOMY I

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSC	300-399	KU6DSCECO304		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course offers a comprehensive exploration of the Indian economy, examining its dynamic sectors, critical development issues, and future prospects. It begins with an overview of the Indian economy, analyzing its historical development, current structure (including agriculture, industry, and services), and its role in the globalized world. The course investigates the intricate relationship between population dynamics and economic growth, exploring how population size, age distribution, and geographic patterns influence national economic development.

Course Prerequisite: NIL

Course Outcomes: By the end of this course, students will be able to:

CO No.	Expected Outcome	Learning Domains
CO 1	Understand the features of Indian economy and evaluate the economic policies implemented by the government since independence.	R,U
CO 2	Learn the complex relationship between population and economic development. Analyze the demographic transition and its impact on economies	U, An
CO 3	Analyze the factors influencing agricultural modernization and its impact on developing economies. Understand the challenges faced by Indian farmers, including land tenure issues, market access, and climate change.	A,An
CO 4	Evaluate the historical evolution of the industrial sector and its impact on economic development. Analyse the rise of the service sector and its implications for industrial development.	E,An,A
CO 5	Analyze the performance of various sectors in Kerala economy	E An

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

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Mapping of Course Outcomes to PSOs							
COs	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1			✓		✓		
CO 2	✓	✓					
CO 3		✓				✓	
CO 4					✓	✓	✓
CO 5	✓			✓			

COURSE CONTENTS

Contents for Classroom Transaction:

MO D U L E	U N I T	DESCRIPTION	HOURS 60
1	ECONOMIC DEVELOPMENT SINCE INDEPENDENCE		12
	1	Features of Indian Economy at the time of independence-	
	2	Alternative development strategies since independence- , a) Import substitution, export promotion and protection, strategies of five year Plans-brief note	
	3	Economic crisis of Indian economy during 1990s	
	4	The post-1991 globalization strategies based on stabilization and structural adjustment packages a) LPG strategies	
	POPULATION AND HUMAN DEVELOPMENT		
1	Demographic features and trends- Size and growth rates of population, trends in birth and death rates,		
2	Density of population, Age and Sex Composition, Population as a factor of economic development, Demographic Dividend;		
3	National Population Policy; Human Development in India-		
4	Human Development indicators, Human Development Index, India's human Development record in global perspective.		
3	INDIAN AGRICULTURE		12

4

	1	Nature, importance and trends in agricultural production and productivity in India	
	2	Evaluation of Land reforms in India	
	3	Food security and PDS in India	
	4	Green revolution and its impacts on Indian agriculture	
	5	Problems faced by Indian agriculture.	
4	INDUSTRIAL AND SERVICE SECTOR		14
	1	Industrial policies of India-1948,1956,1977,1991	
		a) Industrial licensing policies - MRTP Act, FERA and FEMA	
	2	Role of MSME in India, Problems faced by SSIs in India	
	3	Growth and contribution of service sector to GDP of India	
	a) New educational policy of India, The Growth of Knowledge-Based Services: The role of technology and innovation.		
5	TEACHER SPECIFIC MODULE		10
	<i>Directions-Indian Economy – data –RBI –Data-analyse</i>		
	Give assignments/seminar and group discussion/ to students about the performance of various sectors of Kerala economy- Compare economy of Kerala with other states		

Essential Readings:

1. Dutt, R., & Sundharam, K. P. M. (2018). *Indian economy*. New Delhi, India: S. Chand & Company Ltd.
2. Government of India, Ministry of Finance. (2024). *Economic survey of India 2023–24*. New Delhi, India: Author.
3. Kapila, U. (Ed.). (2021). *Indian economy since independence* (Rev. ed.). New Delhi, India: Academic Foundation.
4. Dhingra, C. (2017). *Indian economic problems*. New Delhi, India: S. Chand & Company Ltd.
5. Mishra, J. K., & Puri, V. K. (2019). *Indian economy: The development experience*. Mumbai, India: Himalaya Publishing House.
6. Organisation for Economic Co-operation and Development (OECD). (2004). *Innovation in the knowledge economy: Implications for education and learning*. Paris, France: OECD Publishing.

Reference Distribution:

Module	Unit	Reference No.	Page Nos.	Remarks
1	1	Essential reading 4	32-49	
	2	Essential reading 5	303-310	
	3	Essential reading 5,1	810-813 ,780-784	

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	4	Essential reading 3	457-460	
2	1	Essential reading 4	136-142	
	2	Essential reading 5	128-154	
	3	Essential reading 4,1	136-142 ,526-527	
	4	Essential reading 5	294-312	
3	1	Essential reading 5	313-320	--
	2	Essential reading 5,1	321-328 ,566-579	--
	3	Essential reading 1	534-546	--
	4	Essential reading 5	339-361	
	5	Essential reading 5	294-312	
4	1	Essential reading 5	489-502	--
	2	Essential reading 4	434-446	--
	3	Essential reading 5	793-799	--
		Essential reading , 6	176	

Suggested Readings:

1. Thirlwall, A. P. (1994). Growth and Development: With Special Reference to Developing Economies, Macmillan International Higher Education.
2. Desai. B, (2008) Industrial Economy in India, Himalaya Publishing House, Mumbai.
3. Basu, K. (Ed.). (2004). India's Emerging Economy: Performance and Prospects in the 1990s and Beyond. MIT press

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	4
g)	Field Report	4
Total		100

KU6DSCECO305: MATHEMATICAL TOOLS FOR ECONOMICS

Semester	Course Type	Course Level	Course Code	Credits	Total Hours	
VI	DSC	300-399	KU6DSCECO305	4	60	
Learning Approach (Hours/ Week)			Marks Distribution			
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	Duration of ESE (Hours)
4	0	0	30	70	100	

Course Description:

This course aims to equip students with the essential mathematical tools and techniques for understanding and analysing economic phenomena. The course covers the topics like indices, series, matrices and differentiation. The emphasis is on developing problem-solving skills and mathematical reasoning relevant to economic modelling and analysis.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Understand and apply the concepts of indices, arithmetic and geometric progressions.	U, A
2	Solve future and present values applying appropriate formula.	U, A
3	Describe different types of matrices and the properties of matrix operations.	U, A
4	Understand and apply the concept and the rules of differentiation.	U, A
5	Understand and apply the concept of differentiation in the problems of economics	U, A

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

CO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1			✓				
CO 2	✓		✓				
CO 3		✓	✓				
CO 4			✓				
CO 5	✓	✓					✓

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	SERIES, INDICES AND LOGARITHMS		10
	1	Meaning of series- Types of sequences.	2
	2	Arithmetic and geometric progression- nth term and the sum of n terms of an AP and GP.	2
	3	Meaning and concept of indices- Laws of indices- Problems based on the laws of indices.	3
	4	Logarithms- Common and natural logarithms - Rules of logarithm- Using logarithm to evaluate.	3
2	FINANCIAL MATHEMATICS		9
	1	Basics of simple interest- Finding principal, rate and time.	2
	2	Compound interest- Comparison between simple interest and compound interest-Finding compound interest using formula. Shorter compounding periods.	3
	3	Future value of a single amount and annuity. Concept and calculation.	2
	4	Present value of a single amount and annuity. Equated monthly instalment (EMI).	2
3	MATRICES		13
	1	Meaning and definition of matrix- Presentation of cases in matrix form- Types of matrices	3
	2	Addition, subtraction, scalar multiplication and multiplication of two matrices- Properties of matrix addition and multiplication. Transpose of a matrix.	4
	3	Meaning and definition of determinants- Finding determinant of a square matrix of order up to 3. Properties of determinants.	3
	4	Minors, cofactors and adjoints- Inverse of a matrix- Solving systems of linear equations using matrix inversion and Cramer's rule.	3
4	DIFFERENTIATION		18
	1	a) Limit of a function: Rules of limit- Left hand limit and right-hand limit b) Continuous function: Properties of continuous functions- Point continuity and interval continuity.	4

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	2	a) Meaning of differentiation and derivative-Conditions for differentiation- Rules of differentiation (Sum and difference rule, Product rule, quotient rule, power function rule, chain rule, implicit function rule and logarithmic differentiation rule). b) Higher order differentiation- L'Hôpital's Rule.	8
	3	Partial derivatives- First and higher order partial derivatives.	2
	4	Application of derivatives in economics- Finding slope of economic functions, marginal functions (marginal utility, marginal product, marginal revenue, marginal expenditure, etc) elasticity of demand and supply and optimum value of economic functions.	4
5	TEACHER SPECIFIC MODULE		10
	<i>Directions:</i> Constraint and unconstraint optimisation		
	The module would be set to make students learn constraint and unconstraint optimisation using any of the books from the essential reading list.		

Essential Readings:

5. Barnett, R. A., Ziegler, M. R., & Byleen, K. E. (2019). *College mathematics for business, economics, life sciences and social sciences*. Pearson.
6. Dowling, E. T. (1993). *Schaum's outline of mathematical methods for business and economics*. McGraw Hill.
7. Jacques, I. (2006). *Mathematics for economics and business*. Pearson Education Limited
8. Monga, G. S. (2019). *Mathematics and statistics for economics*. Vikas.
9. Sydsaeter, K., & Hammond, P. (2016). *Essential mathematics for economic analysis*. Pearson.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential reading 4	
	2	Essential reading 4	
	3	Essential reading 3	
	4	Essential reading 3	
2	1	Essential reading 1	
	2	Essential reading 1, 3	
	3	Essential reading 1	
	4	Essential reading 1, 2	
3	1	Essential reading 2, 5	
	2	Essential reading 2, 5	
	3	Essential reading 2	
	4	Essential reading 2	
4	1	Essential reading 2	
	2	Essential reading 2, 5	
	3	Essential reading 2	

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	4	Essential reading 2	
5	-	Essential reading 1 - 5	Preferably

Suggested Readings:

1. Asano, A. (2013). *An introduction to mathematics for economics*. Cambridge University Press.
2. Baruah, S. (2011). *Basic mathematics & its application in economics*. Macmillan.
3. Bergin, J. (2015). *Mathematics for economists with applications*. Routledge.
4. Rosser, M., & Lis, P. (2016). *Basic mathematics for economists*. Routledge.
5. Simon, C. P., & Blume, L. (1994). *Mathematics for economists*. W.W. Norton & Company.
6. Veerachamy, R. (2008). *Quantitative methods for economists*. New Age International.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	-6
g)	Field Report	-
Total		100

KU6DSCECO306: INTRODUCTORY ECONOMETRICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSC	300-399	KU6DSCECO306		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course offers a comprehensive introduction to econometrics, focusing on essential tools and techniques for empirical economic analysis. Students will explore the fundamentals of econometric model building, data types, measurement levels, and the distinction between correlation and causation. Key topics include the simple regression model, Ordinary Least Squares (OLS) estimation, hypothesis testing, and various functional forms of regression models. The course also addresses multiple linear regression models and common violations of classical linear regression assumptions, such as multicollinearity, autocorrelation, and heteroscedasticity, providing detection and remedy techniques. This course equips students with robust analytical skills for economic research and practical applications.

Course Prerequisite: Economic Theory, Statistics (basic ideas of these disciplines and some elementary mathematics)

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Define econometrics and explain its significance as a distinct discipline within economics	R,U
2	Estimate simple and multiple linear regression coefficients using the method of Ordinary Least Squares (OLS).	A,An
3	Understand and apply the assumptions of CLRM and interpret the significance of the stochastic disturbance term.	U,A
4	Compute and interpret standard errors, confidence intervals, and conduct hypothesis testing using p-values.	C,E
5	Interpret the coefficient of determination (R^2) and adjusted R^2 in the context of model fit.	A,An

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6	Detect and remedy issues of multicollinearity, autocorrelation, and heteroscedasticity and identify their consequences	C,U
7	Understand the various functional form for regression models – log-linear, log-lin, lin-log, reciprocal, and polynomial models.	U A

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓	✓				✓
CO 2	✓	✓					
CO 3	✓	✓	✓	✓	✓		
CO 4	✓	✓		✓	✓	✓	
CO 5	✓	✓		✓		✓	
CO 6	✓	✓		✓		✓	
CO 7	✓	✓		✓			

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS 60
1	INTRODUCTION TO ECONOMETRICS		10
	1	Defining Econometrics	2
		a) Importance as a Distinct Discipline	
		b) Types of Econometrics	
	2	Structure of Econometric Model Building	2
	3	Data for Economic Analysis	2
		a) Nature and Sources of Data	
		b) Types of Data	
	4	Measurement Levels in Econometrics	1
	5	Correlation and Causation	2
	6	Limitations of Econometrics	1
2	SINGLE EQUATION REGRESSION MODELS		13
	1	The Simple Regression Model	3

	a) Population Regression Function (PRF) and Sample Regression Function (SRF)		
	b) Linearity in Parameters and Variables		
2	The Role of the Stochastic Disturbance Term	1	
.3	Assumptions of the Classical Linear Regression Model (CLRM)	1	
4	Estimating via Ordinary Least Squares (OLS)	1	
5	Properties of OLS Estimators		
	a) BLU Estimators – The Gauss–Markov Theorem	2	
	b) Standard Errors of Estimates		
6	The Coefficient of Determination (R^2)	2	
7	Interval Estimation and Hypothesis Testing		
	Confidence Intervals		
	a) Significance Tests and p-values	2	
	b) Concepts of the Individual and Overall significance		
8	Interpreting Regression Coefficients	1	
	FUNCTIONAL FORMS OF REGRESSION MODELS	13	
3	1	Selecting the Appropriate Functional Form	
		a) Log-Linear (Double Log) Models	
		b) Log-Lin (Growth) Models	
		c) Lin-Log Models	6
		d) Reciprocal Models	
		e) Regression through Origin Models	
		f) Polynomial Regression Models	
2	Interpreting Regression Coefficients in different functional forms.	2	
3	Basics of regression diagnostics		
	a) Error Normality test	5	
	b) Tests for Linearity		
	c) Model Adequacy tests		
	MULTIPLE LINEAR REGRESSION MODELS AND VIOLATIONS OF CLRM	14	
4	1	Multiple Linear Regression Analysis	3
		a) Basic Form, Assumptions, and Estimation	
		b) OLS Estimation and interpretation of co-efficients	
		c) R^2 and Adjusted R^2	
	2	Testing of individual and overall significance	2
	.3	Multicollinearity	
		a) Perfect vs. Imperfect Multicollinearity	3
		b) Consequences, Detection, and Remedies	
	.4	Autocorrelation	
		a) Pure vs. Impure Autocorrelation	3
	b) Consequences, Detection, and Remedies		
5	Heteroscedasticity	3	

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		a) Pure vs. Impure Heteroscedasticity	
		b) Consequences, Detection, and Remedies	
5	TEACHER SPECIFIC MODULE		10
	<i>(The teachers can design a practical module for the topics covered under the previous four modules)</i>		
	Teachers can preferably assign students to harness household level quantifiable variables and assign them to prepare data in excel format. Essential econometric exercises with excel may be carried out.		

Essential Readings:

1. Gujarati, D. N., & Sangeetha, N. (2007). *Basic econometrics* (4th ed.). New Delhi, India: Tata McGraw-Hill Education.
2. Wooldridge, J. M. (2016). *Introductory econometrics: A modern approach* (6th ed.). Boston, MA: Cengage Learning.
3. Maddala, G. S., & Lahiri, K. (1992). *Introduction to econometrics*, New York: Macmillan.

Reference Distribution:

Module	Reference	Chapters
1	• Gujarati, D. N., & Sangeetha. (2007). <i>Basic econometrics</i> (4th ed.). New Delhi, India: Tata McGraw-Hill Education.	Introduction & chapter 1
	• Wooldridge, J. M. (2006). <i>Introductory econometrics: A modern approach</i> (3rd ed.). Mason, OH: Thomson South-Western.	1
	• Maddala, G. S., & Lahiri, K. (1992). <i>Introduction to econometrics</i> (2nd ed.). New York, NY: Macmillan Publishing Company.	1 & 3
2	• Gujarati, D. N., & Sangeetha. (2007). <i>Basic econometrics</i> (4th ed.). New Delhi, India: Tata McGraw-Hill Education.	2,3,4 & 5
	• Wooldridge, J. M. (2006). <i>Introductory econometrics: A modern approach</i> (3rd ed.). Mason, OH: Thomson South-Western.	2
	• Maddala, G. S., & Lahiri, K. (1992). <i>Introduction to econometrics</i> (2nd ed.). New York, NY: Macmillan Publishing Company.	3
3	• Gujarati, D. N., & Sangeetha. (2007). <i>Basic econometrics</i> (4th ed.). New Delhi, India: Tata McGraw-Hill Education.	6
4	• Gujarati, D. N., & Sangeetha. (2007). <i>Basic econometrics</i> (4th ed.). New Delhi, India: Tata McGraw-Hill Education.	8,10,11 & 12
	• Wooldridge, J. M. (2006). <i>Introductory econometrics: A modern approach</i> (3rd ed.). Mason, OH: Thomson South-Western.	3, 4, 5 & 6
	• Maddala, G. S., & Lahiri, K. (1992). <i>Introduction to econometrics</i> (2nd ed.). New York, NY: Macmillan Publishing Company.	4,5,6 & 7

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	10
d)	Seminar	6
e)	Book/ Article Review	
f)	Viva-Voce	2
Total		100

Employability for the Course: On completion of this course, students will attain strong quantitative and analytical abilities which prepares students for roles such as data analysts, economic analysts, and financial analysts. Students also gain expertise in regression analysis, hypothesis testing, and diagnostics, making them valuable for evaluating public policies and market interventions. This course opens up diverse career opportunities across industries like finance, consulting, government, and technology, as well as advanced research positions in academia and research institutions.

KU6DSEECO305: GENDER ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSE	300-399	KU6DSEECO305		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course critically examines how gender impacts economic structures and outcomes, offering students a deep understanding of gender-specific economic roles and contributions. In a world where gender disparities significantly influence economic opportunities and policy decisions, this course provides the analytical tools to assess and address these issues. Students will explore how economic theories and practices can perpetuate gender biases and learn to advocate for inclusive policies that promote gender equality. Through contemporary case studies and real-world applications, the course emphasises the importance of integrating gender perspectives into economic analysis and policy-making. By the end of the course, students will be well-prepared to contribute to discussions and initiatives aimed at achieving gender equity in economic systems, making the course highly relevant to current global economic challenges and societal shifts.

Course Prerequisite:

- 1. Introductory Microeconomics:** Understanding of consumer behaviour, market structures, and the role of government in the economy.
- 2. Introductory Macroeconomics:** Knowledge of economic indicators and economic growth models.

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Gain a thorough understanding of how gender dynamics shape economic behaviours, structures, and outcomes at the micro and macro levels.	R, U
2	Develop the ability to critically analyse economic policies and frameworks from a gender perspective, identifying biases and proposing inclusive solutions.	R, U, An
3	Equip the students to advocate for gender-responsive economic policies, utilising evidence-based arguments and contemporary case studies.	R, U

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4	Learn the interdisciplinary nature of gender economics, integrating insights from sociology, politics, and economics to address complex gender issues.	R, U, A
5	Analyse the economic value of unpaid work and its impact on household decision-making	An, A

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs

-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓			✓			
CO 2	✓		✓				
CO 3	✓		✓				
CO 4			✓		✓		
CO 5	✓					✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1		INTRODUCTION TO GENDER ECONOMICS	14
	1	Basics of Gender Economics	
		a) Definitions of gender economics	8
		b) Interdisciplinary nature of gender economics	
		c) Importance of gender economics	
	2	Basic Concepts	
		a) Gender, Sex – LGBTQ+ and their problems	
		b) Gender Equality and Equity	
		c) Gender Mainstreaming	
		d) Productive & Reproductive Work	3
		e) Gender Discrimination	
		f) Gender stereotyping	
		g) Patriarchal and Matriarchal families	
		h) Gender effect	
		i) Gender roles	
	3	Approaches of Gender Development	
		a) WID	
		b) WAD	3
		c) GAD	
2		HOUSEHOLD ECONOMICS AND GENDER STATUS	10
	1	Introduction to Household Economics	3

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		a) Definition of household economics	
		b) Household production possibility frontier	
		c) Household as an economic unit	
	2	Division of Labour in the Household	
		a) Gendered division of labour: paid vs. unpaid work	
		b) The economic value of unpaid work: estimation	4
		c) Time poverty: definition and measurement	
		d) Work-life balance and care insurance	
	3	Gender status in India	
		a) Demography of female population in India: Sex ratio, Mortality, Morbidity and life expectancy.	3
		b) Gender inequalities in education Health and nutrition	
3	GENDER IN THE LABOUR MARKET		12
	1	Discrimination in the Labour Market	
		a) Overview of gender disparities in labour markets	
		b) Labour force (employed + unemployed)	5
		c) Decent work: definition & measurement	
		d) Missing women mystery - Amartya Sen's view	
	2	Women and Labour market	
		a) Female work participation rate	
		b) Paid and unpaid work	
		c) Visible and invisible work	4
		d) Triple role of women	
		e) Occupational segregation	
		f) Feminization of poverty	
	3	Causes & Policy Solutions for Inequalities in the Labour Market	
		a) Causes of gender inequalities in the labour market	3
		b) Labour market policies for gender equality	
4	GENDER AND ECONOMICS		14
	1	Feminist Economics	
		a) Historical evolution & definition	2
	2	Gendered Measures of Well-Being	
		a) Gender Development Index (GDI)	
		b) Gender Inequality Index (GII)	6
		c) Gender Volnurability Index (GVI)	
		d) Gender Empowerment Measures (GEM)	
	3	Gender Responsive Budgeting (GRB)	
		a) Gender budget statement	
		b) Importance of Gender Responsive Budgeting (GRB)	3
		c) Gender Planning	
	4	Women Empowerment	
		a) Women empowerment programmes in India with special reference to <i>Kudumbasree</i> in Kerala.	3

		b) NGOs and Self Help Groups in Women Empowerment	
5	TEACHER SPECIFIC MODULE		10
	Directions: Practical Applications and Hypothetical Scenarios		
	This module will be a practical, work-based module designed to reinforce conceptual foundations from the theoretical modules (1 to 4). Using hypothetical scenarios and data tables, students will engage in exercises to apply gender economic theories and analyses.		
	1	Gender-Responsive Budgeting Exercise: Students will work with hypothetical budget data to create gender-responsive budgets, identifying gender biases and proposing equitable allocations.	2
	2	Household Economics Case Study: Using case studies, students will analyse intra-household bargaining scenarios, estimating the economic value of unpaid work and its impact on household decision-making.	2
	3	Labor Market Analysis: Students will examine gender disparities in a hypothetical labour market, using provided data to calculate and analyse gender wage gaps, employment rates, and occupational segregation.	2
	4	Macroeconomic Policy Review: Students will critique and propose revisions to a hypothetical country's macroeconomic policies, incorporating gender-aware perspectives and addressing identified biases.	2
5	Well-Being Index Calculation: Using hypothetical data, students will calculate various gendered measures of well-being (HDI, GDI, GII), interpreting the results and discussing policy implications.	2	

Essential Readings:

1. Eswaran, M. (2014). *Why gender matters in economics*. Princeton University Press.
2. Jacobsen, J. (2007). *The economics of gender*. Nineteenth Edition. McGraw Hills Irwin.
3. Benería, L., Berik, G., & Floro, M. (2003). The study of Women and Gender in Economics. *L. Bene-ria, Gender, Development and Globalization, Routledge*, 31-6.
4. İzdeş Terkoğlu, Ö., İlkaracan, İ., Memiş, E., & Yücel, Y. (2017). *The UN Women gender and economics training manual*.
5. Becchio, G. (2019). *A history of feminist and gender economics*. Routledge.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Readings 1	-
	2	Essential Readings 2	
	3	Essential Readings 3	-
	4	Essential Readings 4	-
	5	Essential Readings 5	-

2	1	Essential Readings 1	-
	2	Essential Readings 2	
	3	Essential Readings 4	-
	4	Essential Readings 5	-
3	1	Essential Readings 1	-
	2	Essential Readings 2	
	3	Essential Readings 4	-
4	1	Essential Readings 1	-
	2	Essential Readings 4	-
5	-	Essential Readings 4	Preferably

Suggested Readings:

1. Agarwal, B. (1988). Who sows? Who reaps? Women and land rights in India. *The Journal of Peasant Studies*, 15(4), 531-581.
2. Agarwal, B. (2003). Gender and land rights revisited: Exploring new prospects via the state, family and market. *Journal of agrarian change*, 3(1-2), 184-224.
3. Antonopoulos, R., & Hirway, I. (Ed.) (2010). *Unpaid work and the economy* (Chapters 1, 2, 7 & 11). New York: Palgrave MacMillan.
4. Balakrishnan, R., McGowan, L., & Waters, C. (2016). *Transforming women's work: Policies for an inclusive economic agenda*. New York: Solidarity Centre, AFL-CIO and Center for Women's Global Leadership.
5. Becker, G. S. (2010). *The economics of discrimination*. University of Chicago press.
6. Benería, L., Berik G., & Floro, M.S. (2016). Paid and Unpaid Work: Meanings and Debates. In *Gender, development and globalisation: Economics as if all people mattered*. New York: Routledge.
7. Bulow, J. I., & Summers, L. H. (1986). A theory of dual labor markets with application to industrial policy, discrimination, and Keynesian unemployment. *Journal of labor Economics*, 4(3, Part 1), 376-414.
8. Campbell, J., & Gillespie, M. (2016). *Feminist economics and public policy*. Taylor & Francis.
9. Elson, D. (1994). Micro, meso, macro: Gender and economic analysis in the context of policy reform. In Bakker, I. (Ed.), *The strategic silence: Gender and economic policy*. London: ZED Books and the North-South Institute.
10. Folbre, N. (1982). Exploitation comes home: a critique of the Marxian theory of family labour. *Cambridge Journal of Economics*, 6(4), 317-329.
11. Folbre, N. (2006). *Measuring care: Gender, empowerment and the care economy*. *Journal of Human Development*, 14(2), 183-200.
12. Mincer, J. (1962). Labour force participation of married women: A study of labour supply. In *Aspects of labour economics* (pp. 63-105). Princeton University Press.
13. Nussbaum, M. C. (2000). *Women and human development: The capabilities approach* (Vol. 3). Cambridge university press.
14. Robeyns, I. (2003). Sen's capability approach and gender inequality: selecting relevant capabilities. *Feminist economics*, 9(2-3), 61-92.

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15. Sen, A. (1987). Gender and cooperative conflicts. In *Persistent Inequalities: Women and World Development*. In I. Tinker (Ed.), Oxford University Press, New York, pp. 123–149.
16. Sen, A. (2017). More than 100 million women are missing. In *Gender and Justice* (pp. 219-222). Routledge.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	4
d)	Seminar	4
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report/work/ Practical Applications	- 10
Total		100

KU6DSEECO306: MANAGERIAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSE	300-399	KU6DSEECO306		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course is essential for understanding how economic principles guide managerial decision-making. This course aims to make students understand how managers make decisions, explore how firms are organized, and grasp the dynamics of industries. It enables students to learn advanced pricing strategies and techniques for firms with market power. From setting goals to navigating real-world scenarios, this course offers a comprehensive view of applying economic principles in managerial roles.

Course Prerequisite: Introductory microeconomics and intermediate microeconomics

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Develop a foundational grasp of managerial economics principles to tackle real-world business challenges effectively.	R,U
2	Acquire insight into organizational dynamics to navigate managerial roles with proficiency.	R,U
3	Gain understanding of industry dynamics to inform strategic decision-making in business environments.	U,E
4	Master advanced pricing strategies to optimize profitability and competitiveness in market-driven economies.	U,A ,An

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7

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CO 1	✓		✓				
CO 2	✓				✓		
CO 3	✓		✓		✓		
CO 4	✓		✓				

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	THE FUNDAMENTALS OF MANAGERIAL ECONOMICS		10
	1	The manager and managerial economics.	1
	2	Goals and constraints of managers.	1
	3	Nature and importance of profits	2
		a) Economic versus accounting profits	
		b) The role of profits	
	4	c) Profit measurement and opportunity cost	1
		Incentives	
	5	Sources of market rivalry	3
		a) Consumer–Producer rivalry	
		b) Consumer–Consumer rivalry	
		c) Producer–Producer rivalry	
	6	Managerial decisions	2
a) Discrete decisions			
b) Continuous decisions			
c) Incremental decisions			
2	THE ORGANIZATION OF THE FIRM		16
	1	Methods of procuring inputs: spot exchange, contracts, vertical integration	1
	2	Transaction costs	1
	3	Specialized investments	2
		a) Site specificity	
		b) Physical-asset specificity	
		c) Dedicated assets	
	d) Human capital		

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	4	Implications of specialized investments in transaction cost	3
		a) Costly bargaining	
		b) Underinvestment	
		c) Opportunism	
	5	Optimal input procurement	3
		a) Spot exchange	
		b) Contracts	
		c) Vertical integration	
	6	Forces that discipline managers	3
		a) Incentive contracts	
		b) External incentives	
		c) Reputation	
7	The manager–worker principal–agent problem	3	
	a) Solutions to the manager–worker principal–agent problem		
	b) Profit sharing		
	c) Revenue sharing		
3	THE NATURE OF INDUSTRY		10
	1	Market structure	1
		a) Firm size	
	2	Measures of industry concentration	2
		a) Four-firm concentration ratio	
	3	Limitations of concentration measures	1
		b) Herfindahl-Hirschman index (HHI)	
	4	Industry demand and market conditions	2
		a) Rothschild index, potential for entry	
	5	Differences in conduct of firms	2
		a) Pricing behaviour and Lerner index	
	6	Integration and merger activity	2
a) Vertical integration			
b) Horizontal integration			
4	PRICING STRATEGIES OF FIRMS WITH MARKET POWER		14
	1	Basic pricing strategies	4
		a) Basic rule of profit maximization	
		b) Pricing rule for monopoly and monopolistic competition	
c) Pricing rule for Cournot oligopoly			

	2	Methods of extracting surplus from consumers	3	
		a) Price discrimination		
		b) Two-part pricing		
		c) Block pricing		
	3	Pricing strategies for special cost and demand structures	3	
		a) Peak-load pricing		
		b) Cross-subsidies		
	4	Pricing strategies in markets with intense price competition	4	
		a) Price matching		
		b) Inducing brand loyalty		
	5	TEACHER SPECIFIC MODULE		10
		This module aims at learning real-world business scenarios through case studies. Case studies may include		
a) Pricing strategy and market power (eg: to explores how Apple sets pricing for its iPhone models)				
b) Market structure and competitive dynamics(eg: comparing the market structure and competitive dynamics of the traditional taxi industry with Uber’s disruptive business model)				
c) Decision-making under constraints (eg: Tesla’s challenges in balancing innovation with production constraints).				
d) Strategic pricing and competitive advantage(eg: rivalry between Coca-Cola and PepsiCo)				

Essential Readings:

1. Baye, Michael R., Prince, Jeffrey T. (2022). Managerial Economics and Business Strategy (Tenth Edition). McGraw Hill Education.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1-6	Essential Readings:	-
2	1-7	Essential Readings: 1	-
3	1-6	Essential Readings: 1	-
4	1-4	Essential Readings: 1	-

Suggested Readings:

1. Keat, P. G., & Young, P. K. (2017). Managerial Economics: Economic Tools for Today's Decision Makers (Fifth edition). Pearson.
2. Maurice, S. C., & Thomas, C. (2018). Managerial Economics: Foundations of Business Analysis and Strategy (Twelfth edition). Pearson.

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3. Salvatore, D. (2018). *Managerial Economics in a Global Economy* (Eighth edition). Oxford University Press.
4. Froeb, L. M., McCann, B. T., & Shor, M. (2017). *Managerial Economics: A Problem-Solving Approach* (Fifth edition). Cengage Learning.
5. Samuelson, W. F., & Marks, S. G. (2017). *Managerial Economics* (Nineth edition). Wiley.
6. Hirschey, M. (2016). *Fundamentals of Managerial Economics* (Seventh edition). Cengage Learning.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	-
g)	Field Report	6
Total		100

KU6DSEECO307: ADVANCED MATHEMATICAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSE	300-399	KU6DSEECO307		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course aims to equip students with essential mathematical tools and techniques necessary for economic analysis. It begins with a thorough exploration of multivariate differentiation, followed by the study of integration techniques. Linear equation analysis is then introduced to provide foundational skills in modelling economic relationships. The course also delves into applications of matrix algebra and linear programming techniques, emphasizing their relevance in optimizing economic decisions and analyzing complex economic systems.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Apply multivariable differentiation for analysing economic phenomenon	A, An
2	Explain the concept of integration and apply them for understanding economic phenomenon	A, An
3	Solve systems of linear equations using various methods	A, An
4	Evaluate optimum conditions using matrix concepts.	E
5	Apply linear programming technique for optimum solution.	A

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓				✓
CO 2	✓		✓				
CO 3		✓	✓				
CO 4	✓						
CO 5	✓	✓	✓				

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	MULTI-VARIABLE DIFFERENTIATION		14
	1	Review of major rules of differentiation.	2
	2	Partial derivatives- First and higher order partial derivatives.	2
	3	Total differential and total derivative - Higher order derivatives and differentials. Homogeneous function and its properties. Euler’s Theorem.	5
	4	Application of multivariable differentiation in economics: Marginal analysis, partial elasticities and optimisation of multivariable function - Constrained optimization with Lagrange multipliers.	5
2	INTEGRATION		13
	1	Concept of integration –Indefinite integration- Rules of indefinite integrals.	2
	2	Integration by substitution, parts and partial fraction –Applications of indefinite integration in economics.	5
	3	Definite Integral-Properties of definite integration.	2
3	MATRICES		11
	1	Review of basic concepts and rules of matrix. Determinant, inverse and solving linear equation.	3
	2	Meaning and definition of rank of a matrix. Rank of the matrix from its echelon matrix.	2
	3	Characteristic equation, Eigen values and Eigen vectors. Cayley Hamilton Theorem.	3
4	LINEAR PROGRAMMING		12
	1	Terminology- Basic assumptions- Formulation of LPP.	2
	2	Graphical solutions to maximisation and minimisation problems.	2
	3	Simplex method- Solutions to problems using simplex method.	4
5	TEACHER SPECIFIC MODULE		10
	<i>Direction:</i> Input- Output analysis		
	The module would preferably set on the theme of input-output analysis with special emphasis on analytical exercises.		

Essential Readings:

1. Anthony, M., & Harvey, M. (2012). *Linear algebra. Concepts and methods*. Cambridge University Press.

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2. Chiang, A. C., & Wainwright, K. (2013). *Fundamental methods of mathematical economics*. McGraw Hill.
3. Dowling, E. T. (2012). *Schaum's outline of introduction to mathematical economics*. McGraw Hill.
4. Jacques, I. (2006). *Mathematics for economics and business*. Pearson Education Limited.
5. Sydsaeter, K., & Hammond, P. (2012). *Essential mathematics for economic analysis*. Pearson.
6. Taha, H. A. (2017). *Operations research. An introduction*. Pearson.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential reading 3, 4, 5	
	2	Essential reading 3, 4, 5	
	3	Essential reading 2, 3, 5	
	4	Essential reading 2, 3	
2	1	Essential reading 4, 5	
	2	Essential reading 5	
	3	Essential reading 4, 5	
	4	Essential reading 4, 5	
3	1	Essential reading 1, 3, 4, 5	
	2	Essential reading 1, 2, 3	
	3	Essential reading 1	
	4	Essential reading	
4	1	Essential reading 6	
	2	Essential reading 6	
	3	Essential reading 6	
	4	Essential reading 6	
5		Essential reading 1 - 6	Preferably

Suggested Readings:

1. Baruah, S. (2011). *Basic mathematics & its application in economics*. Macmillan.
2. Hillier, F. S., & Lieberman, G. J. (2010). *Introduction to operations research*. McGraw Hill.
3. Monga, G. S. (2019). *Mathematics and statistics for economics*. Vikas.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	8
b)	Test Paper-2	8
c)	Assignment	8
d)	Seminar	6
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report	
Total		100

KU6DSEECO308: INSTITUTIONAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSC	300-399	KU6DSEECO308		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course gives an introduction to Institutional Economics with special emphasis on New Institutional Economics. It gives an understanding of the role of institutions in shaping economic behaviour, transactions and outcome. Through a combination of theoretical frameworks, historical case studies, and contemporary examples, this course will also enable students to understand how institutions influence economic systems, governance structures and development process.

. Course Prerequisite: NIL

Course Outcomes:

Upon completion of this course, students are expected to be able to:

CO No.	Expected Outcome	Learning Domains
1	Understand analytical framework of Institutional Economics and New Institutional Economics and apply it in different areas in which institutions may affect outcomes	U, A, An
2	Understand the role of transactions, old and new institutional economics and growth process in economics	R, U, An
3	Comprehend and use principles of New Institutional Economics to analyse markets, firms and the state	A, An, E
4	Understand and apply the principles of NIE to property rights and contracts	U, A, An, E, C

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓			✓	✓		
CO 2				✓	✓		
CO 3			✓	✓	✓		
CO 4	✓	✓	✓	✓	✓		

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO INSTITUTIONAL ECONOMICS		10
	1	Coordinating transactions in a complex world- examples of Origin of financial crisis of 2008 in USA, Watchdogs and Boycotts, Microsoft, Protectionism and Global Warming.	3
	2	Coordinating Transactions and Role of Institutions:	3
		a) Meaning of Institutions- Difference between formal and informal institutions- Institutional Environment-Institutionalisation as a process	
	3	b) Effectiveness of Institution- Institutions enable and constrain- Economic Systems and governance structures	4
		Introduction to Theoretical Framework I	
	a) Meaning of Institutional Economics	4	
b) Original Institutionalism and New Institutionalism-Differences and important people associated with each school -Veblen and Commons and Institutionalism -Douglas C. North, Ronald Coase, Elinor Ostrom, and Oliver Williamson and New Institutional Economics (very brief concept only)			
2	INTRODUCTION TO THEORETICAL FRAMEWORK II		10
	1	Introductory concepts and how they work in Institutional Economics: Transactions (Market Transaction- Managerial Transaction and Political Transaction)- Optimizing behaviour and Opportunism-Risks and uncertainties- Perfect Competitions and efficiency-Market Imperfections (Imperfect information, market power, pure public goods, externalities and (de)merit goods, and natural monopolies-Transaction cost (Brief concept on each only)	3
	2	Subject matter of institutional economics- Static efficiency and static vested interest approaches- dynamic efficiency and dynamic vested interest approach	3
	3	Institutions matter (Concept by Douglas C. North)- Institutions and Development	2
	4	Case Study Example of Pirate Economy based on Pirates of the Caribbean movie	2
3	STATIC AND DYNAMIC APPROACHES TO INSTITUTIONS		17
	1	Static Approach to Institutions	2
		a) Property Rights Theory (Assigning Property Rights, Enforcing Property Rights	

		b) Contract Theories (Agency Theory: Principal- Agent Theory: Moral Hazard and Adverse Selection; Implicit Contract Theory) (brief concepts only)	5
		c) Transactions Cost Theory of Governance Structures (Transaction Cost Economics and Governance structures)	2
		d)The Vested Interest Approach (Property Rights, Agency, Governance Structures) (brief concepts only)	2
	2	Dynamic approach to institutions	
		a) Drivers of institutional change (Exogenous drivers of change, Motivations of change: efficiency and vested interests)	
		b) The evolutionary approach toward the dynamics of institutions (institutions as an equilibrium: history matters, Darwinian evolution, Path Dependence, Gradual Change and ‘Punctuated Equilibria’; Cumulative Causation) (brief concepts only)	4
		c) The design approach towards dynamics of institutions (Designing efficient institutions: the NIE approach, Designing effective institutions: the OIE approach)	2
		PRIVATE GOVERNANCE STRUCTURES AND PUBLIC GOVERNANCE STRUCTURES	13
	1	PRIVATE GOVERNANCE STRUCTURES	
		a) MARKETS: The static efficiency approach to markets- The static vested interest approach to markets- The dynamic efficiency approach to markets, The dynamic vested interest approach to markets	3
		b) FIRMS: The static efficiency approach to firms- The static vested interest approach to firms- The dynamic efficiency approach to firms, The dynamic vested interest approach to firms	4
4	2	PUBLIC GOVERNANCE STRUCTURES	
		a) State Intervention to Protect the Public Interest (The static approach to state intervention- The Dynamic Approach to State intervention)	3
		b) Government Failures (The static approach to government failures, The dynamic approach to government failures) - Arrow’s Impossibility Theorem	3
		TEACHER SPECIFIC MODULE	10
		<i>Directions</i>	
5		Case Studies given in the textbook Institutional Economics: An Introduction by John Groenewegen, Antoon Spithoven, Annette Van den Berg can be used extensively to understand and analyse concepts Case studies in Indian contexts such as Kudumbashree, COVID 19, Nipah etc can be discussed. Assignments, seminar and presentations could be given based on examples from India with special focus on Kerala	

Essential Readings:

1. Groenewegen, J., Spithoven, A., & Van den Berg, A. (2010). *Institutional economics: An introduction*. Bloomsbury Academic / Red Globe Press. [Bloomsbury+1](#)
2. Furubotn, E. G., & Richter, R. (2005). *Institutions and economic theory: The contribution of the new institutional economics* (2nd ed.). University of Michigan Press. [press.umich.edu+1](#)

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3. North, D. C., Coase, R. H., Ostrom, E., & Williamson, O. E. (n.d.). *Contributions of Douglas C. North, Ronald H. Coase, Elinor Ostrom, and Oliver E. Williamson*.
<https://core.ac.uk/download/pdf/52809172.pdf>

Reference Distribution:

Module	Reference No.	Remarks
1	Essential Reading 1,2,3	
2	Essential Reading 1,2,3	
3	Essential Reading 1,2,3	
4	Essential Reading 1,2,3	

Suggested Readings:

1. Ménard, C., & Shirley, M. M. (Eds.). (2005). *Handbook of new institutional economics*. Springer.
2. Brousseau, É., & Glachant, J.-M. (Eds.). (2008). *New institutional economics: A guidebook*. Cambridge University Press.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	3
f)	Viva-Voce	3
g)	Field Report	
Total		100

KU6DSEECO309: LABOUR ECONOMICS

Semester	Course Type	Course Level	Course Code			Credits	Total Hours
VI	DSE	300-399	KU6DSEECO309			4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)	
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total		
4	0	0	30	70	100		

Course Description

Labor Economics is a comprehensive study of the economic aspects surrounding the labor market, aiming to understand the behavior of workers, employers, and the impact of government policies on employment and wages. This course delves into the theoretical and empirical foundations of labor markets, exploring key concepts, analytical tools, and real-world applications.

COURSE OUTCOMES

Course Learning Outcomes: At the end of the Course, the Student will be able to -

CO No.	Expected Outcome	Learning Domains
1	Understand various concepts related to labour, work and theory of development	R, U
2	Able to explain and understand rural and urban divide in wage structure and composition of labour market.	An, E
3	Students able to understand, analyse, and apply various theories of labour economics	U,A, An
4	Students will also able to evaluate how the social constructs like gender , class and caste impacts labour	An, E
5	Able to evaluate, interpret, critically assess and write articles based on empirical results, survey reports, and scientific papers in labour economics.	E, C

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs							
COs	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7

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CO1	√		√				
CO2	√		√			√	
CO3	√		√	√		√	
CO4	√	√	√	√		√	
CO5	√	√	√	√	√	√	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOU RS 60
		LABOUR MARKET – BASIC CONCEPTS	13
1	1	Labour and Workforce - Concepts, types and measurement of labour force	3
	2	workforce participation rate- Casualisation of workforce- Choice between work and leisure	3
	3	Demand and Supply of Labour- labour supply/demand schedule and functions-income effect, substitution effect- factors affecting supply and demand for labour- wage elasticity of demand for labour	3
	4	Labour market equilibrium - wage structure in different markets-components of wage- efficiency wage- wage distribution and inequality of wage- minimum wages-objectives, principles- social security aspects of labour market	4
		THEORIES OF LABOUR MARKET	13
2	1	Classical theory of supply and demand for labour- Say's law of market-Division of Labour and Specialisation- Marxian theory of labour-implications,	5
	2	Marginal productivity theory of labour - implication -Keynesian theory of labour market- implications	2
	3	Backward bending labour supply curve - Dual and segmented market theories- Lewis theory- Harris -Todaro model	3
	4	Human Capital theory- Search and Matching theory - DMP Model-Institutional theory	3
		EMPLOYMENT AND UNEMPLOYMENT	12
3	1	Meaning of employment, unemployment and under employment-classification- Labor Market Flexibility and Precarious Work – labour mobility- Employment and unemployment scenario in India	4

	2	Indicators of unemployment and underemployment; measuring rural and urban unemployment- employment statistics- labour surveys and reports	3
	3	Causes of unemployment- measures to reduce unemployment in India- employment policy under the five year plans- evaluation of employment policy in India.	2
	4	Recent trends in employment and unemployment issues- structural change-employment opportunities- education and training - skills mismatch- Educated unemployment –entrepreneurship development and startups – Impact of technology and AI	3
	CONTEMPORARY ISSUES IN LABOUR MARKET -INDIAN AND GLOBAL CONTEXT		12
4	1	Characteristics of Indian labour market, types and sectoral wise division of labour market in India - labour in urban and rural India- farm and non-farm workers- organized and unorganized workers	2
	2	Wage policies- labour union and labour laws- labour market reforms in India- recent trends in Kerala labour market	2
	3	Labour issues related to age, class, caste and gender- child labour- violation of labour rights- labour market discrimination- feminization of work- work life balance – contribution of Claudia Goldin	5
	4	Globalisation and informalisation of labour-Global labour market challenges- Labour migration-	3
	TEACHER SPECIFIC MODULE		10
5	Directions: Cases study		-
	This module would preferably be set as case study-based on current labour economics literature		

Essential Readings

1. C R Mc Connell and S L Brue: Contemporary Labour Economics- McGraw Hill, 1986.
2. Ehrenberg, R. G. and Smith, R. S. (2018): Modern Labour Economics: Theory and Public Policy, Routledge.
3. Ronald G. Ehrenberg and Robert Smith (2005): Modern Labour Economics, 5th Edition. New York: McGraw-Hill.
4. Reynolds, Lloyd G (1951).The Structure of Labour Markets- Yale University Press, New haven
5. Lester, Richard Allen (1964). Economics of Labour- Macmillan publication
6. Rees, Albert (1978). Economics of Work and Pay, Harper & Row, Labour Economics
7. Borjas, George J (2016). Labor Economics (Ed. 7th). New York: McGraw Hill.
8. Smith, Stephen (2003). Wage Determination and Inequality in Labour Economics 2nd edition, Routledge, London and New York.
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10. Shapiro, Carl and Joseph, Stiglitz (1986). Equilibrium Unemployment as a Worker Discipline Device in Akerlof, G. A and J. L. Yellen (eds.), Efficiency Wage Models of

- the Labour Market. Cambridge University Press.
11. Keynes, J. M. (1935). Changes in Money Wages (Chapter 19) in *The General Theory of Employment, Interest and Money*. Atlantic Publishers and Distributors (P) Ltd, New Delhi, India.
 12. Osterman, P. (1984). *Internal Labor Markets*. MIT Press
 13. Harris, J. R., & Todaro, M. P. (1970). Migration, Unemployment and Development: A Two-Sector Analysis. *The American Economic Review*, 60(1), 126-142.
 14. Becker, G.S., *Human Capital* (1994) *Human Capital-A Theoretical and Empirical Analysis, with Special Reference to Education*. University of Chicago press.
 15. Mortensen, D. T., & Pissarides, C. A. (1994). Job Creation and Job Destruction in the Theory of Unemployment. *Review of Economic Studies*, 61(3), 397-415.
 16. Khera, R (2011). *The Battle for Employment Guarantee*, Oxford University Press, New Delhi.
 17. Deshpande, L K, Brahmanand P R and Robinson E A G (1983) *Employment Policy in Developing Economy-* Macmillan.
 18. Das, N (1960). *Unemployment, Full Employment and India-* Asia Publishing House
 19. Ehrenberg, Ronald G., Smith, Robert S.. (2015). *Modern labor economics : theory and public policy / Ronald G. Ehrenberg ; Robert S. Smith* (12th ed). Harlow: Pearson Education.
 20. Pierre Cahuc & Stéphane Carcillo & André Zylberberg & William Mccuaig, (2014). *Labor Economics*, Sciences Po publications
 21. Bruce E. Kaufman (1994), *The Economics of Labor Markets*, the University of Michigan , Dryden Press, 1994
 22. Freeman, Richard B (1982) *The Youth Labor Market Problem* (Hardcover),The University of Chicago Press, Chicago, IL
 23. Patnaik, Utsa (1983). “On the Evolution of the Class of Agricultural Labourers in India”, *Social Scientist*, 11(7).
 24. Dreze, J. (2011). *Employment Guarantee and the Right to Work*, in Khera (ed.) *The Battle for Employment Guarantee*, Oxford University Press, New Delhi
 25. Sanyal, Kalyan and Bhattacharya, Rajesh (2009). “Beyond the Factory: Globalisation, Informalisation of Production and the New Locations of Labour”, *Economic and Political Weekly*, 44(22).
 26. Roy, Satyaki (2014). “Informality’ and Neo-liberalism: Changing Norms and Capital’s Control” in Kannan et al (eds.) *Labour and Development: Essays in Honour of Professor T. S. Papola*, Academic Foundation, New Delhi 215-234.
 27. Goldin, Claudia and Loy, Mary Blair (2017) *Gender in the Workplace: A Case Study Approach*, Polity Press

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1-4	Essential Reading 1-7	
			-
2	1-4	Essential Reading 8-15	-
3	1-4	Essential Reading 16-23	-
4	1-4	Essential Reading 24-28	-

Suggested Readings

1. Abraham, K.G. and R.B. Mckersie (1991), *New Developments in Labour Market: Toward a New Institutional Paradigm*, MIT Press.
2. Verma, Anil et al (1995), *Employment Relations in the Growing Asian Economics*, Routledge.
3. Bagchi, A.K., (1994), *New Technology and the Workers' Response*, Sage Publications.
4. Banerjee, D. and Goldfield, M. (eds.) (2007). *Labour, Globalisation and the State: Workers, Women and Migrants Confront Neoliberalism*. Routledge, London and New York.
5. Card, D., and Ashenfelter, O. (2011): *Handbook of Labour Economics*, Vol.4 A&B, Elsevier

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	4
f)	Viva-Voce	-
g)	Field Report	4
Total		100

KU6SECECO304: GOODS AND SERVICES TAX

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	SEC	300-399	KU6SECECO304		3	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	25	50	75	1.5 hours

Course Description:

This course helps the students to understand GST which has immense career opportunities both in the private and public sector. Students are able to find a career as GST professionals in small and medium enterprises. The course covers major aspects of GST laws, procedures and accounts. This course also provides practical sessions on registration and return filing provisions under GST.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
CO 1	Critically analyze the key aspects and implications of GST laws in India	An, E
CO 2	Proficiently apply the procedures for GST registration and return filing	An, E
CO 3	Integrate advanced accounting principles with GST regulations	An, E
CO 4	Independently implement GST registration and return filing provisions	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

CO s-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓				✓	
CO 2				✓			
CO 3	✓				✓		✓
CO 4			✓	✓			

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO GST		13
	1	a) Constitutional Background of introduction of GST – Characterization of Indian GST - b) Central Goods and Services Tax, (CGST), c) State Goods and Services Tax (SGST)	
	2	Integrated Goods and Services Tax (IGST), Definitions - Levy and Collection of Tax, Composition Scheme - Registration. Input Tax Credit, Tax Invoice	
2	PLACE OF SUPPLY OF GOODS		13
	a)	Place of supply of goods, Place of supply of services - Filing of Returns & Payment of Tax, Tax Deduction at Source & Tax Collection at Source, -	
	b)	Refund Mechanism - Assessment, Audit, Advance Ruling - GST Rates and use of HSN Code/SAC	
	c)	Performance of GST in India	
3	ACCOUNTING FOR GST		24
	1	Book-keeping & Accounting - Business Transactions- Invoice & Vouchers	5
	2	Double Entry Principle - Debit & Credit - Journal - Ledger - Bank Reconciliation Statement	4
	3	PRACTICAL SESSIONS	15
		Registration – Composition - Input Tax Credit - Tax Invoice - Return filing - Payment of Tax – Refund - e-way Bill. - e-invoicing	
4	TEACHER SPECIFIC MODULE		10
		Directions: <ul style="list-style-type: none"> • Case example showing how a single transaction is split between CGST and SGST. • Map illustration of inter-state supply with IGST flow <ul style="list-style-type: none"> • Simple exercise: Calculate GST under regular and composition schemes. • Group Exercises for collaborative understanding • Practical Worksheet on Refund, Assessment & HSN Code Usage • Case Study on Place of Supply and Tax Liability • Journal Entries and Ledger Posting under GST To make students experience a complete GST workflow — from registration to filing returns — using sample data.	

Essential Readings:

1. Govinda Rao M (2019) Goods & Service Tax in India: Progress, Performance and

- Prospects, Deepak & Neera Raj Centre on Indian Economic Policies. Columbia University Working Paper No 2019-02
2. GoI. 2019. Report of the Comptroller and Auditor General of India for the year ended March 2018. Department of Revenue. Available at https://cag.gov.in/uploads/download_audit_report/2019/Report_No_11_of_2019_Compliance_Audit_of_Union_Government_Department_of_Revenue_Indirect_Taxes_Goods_and_Services_Tax.pdf
 3. Nayyar, A., & Singh, I. (2018). A comprehensive analysis of Goods and Services Tax (GST) in India. *Indian Journal of Finance*, 12(2), 57-71. Available at <https://www.indianjournaloffinance.co.in/index.php/IJF/article/view/121377>
 4. Gulati Institute of Finance and taxation. 2021. Report on GST Compensation in India State Level Experience and the Way Forward. September. Available at https://www.gift.res.in/ofk_im/extra/Report_on_GST_Compensation.pdf
 5. Joseph, K. J., & Kumary, L. A. (2023). India's GST Paradigm and the Trajectory of Fiscal Federalism: An Analysis with Special Reference to Kerala. *The Indian Economic Journal*, 71(1), 187-203. <https://doi.org/10.1177/00194662221146640>
 6. Goods and Service Tax Council. (n.d). Brief History of GST in India Available at <https://gstcouncil.gov.in/brief-history-gst>

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1, 2	
	2		
2	1	Essential Reading 1, 2, 3	
	2		
3	1	Essential Reading 5, 6	
	2		
	3	Essential Reading 1, 4, 6	

Suggested Readings:

1. Mahlawat, S. (2018). *Goods and Services Tax and Indian retail sector: Issues and challenges*. In *Indian Economy: Tales of Transformation* (p. 52)..
2. Mahajan, P. (2015). *E-Way Bill: A Digital Approach toward GST in India*.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation theory		35
End Semester Evaluation practical		15
Continuous Evaluation theory		15
a)	Test Paper- 1	5
b)	Test Paper-2	5
c)	Assignment	5
d)	Seminar	
e)	Book/ Article Review	-
f)	Viva-Voce	-
Continuous Evaluation – Practical Field/Practical Report		10
Total		75

KU6SECECO305: FINANCE AND TECHNOLOGY

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	SEC	300-399	KU6SECECO305		3	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	25	50	75	
						1.5(Hours)

Course Description:

This course introduces the sunrise sector of Fintech to the students. It provides the ways in which new technologies are disrupting the financial services industry. The course will explore the basic difference between the traditional and modern financial sector while dealing with the role of innovation and technology in business models, products, applications and customer user interface. The course will detail how technologies such as AI, ML, deep learning, blockchain, and open APIs are reshaping the financial sector. Finally, the various fintech sectors in India will be elaborated.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
CO 1	Evaluate and articulate the differences between traditional finance and Fintech	An, E
CO 2	Assess the roles of various technologies in the Fintech sector	An, E
CO3	Synthesize the roles of AI, ML, deep learning, blockchain, and open APIs in Fintech	An, E
CO4	Critically analyze case studies in various sectors of Fintech in India	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

-COs	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓				
CO 2	✓		✓				
CO 3	✓		✓			✓	
CO 4	✓		✓			✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION OF FINTECH AND FINANCE SECTOR		12
	1	Fintech and the Finance sector - Innovation and Disruption in Finance	
	2	Introduction to the Fintech landscape - Applications of FinTech	
2	FINTECH ARCHITECTURE AND FINTECH TECHNOLOGIES		7
	1	Overview of FinTech architecture - Introduction to Blockchain integration in FinTech	
	2	Introduction to Open Application Programming Interfaces (APIs) - Exploring the applications of AI and ML in finance	
3	INDIA'S FINTECH SECTOR - PART 1		15
	1	Overview of various fintech sectors in India: The regulatory framework for fintech in India & Regulatory compliance issues in the Indian fintech space	
	2	Trends in FinTech and the Fintech landscape in India - Examining key players, institutions, innovations, and challenges.	
4	INDIA'S FINTECH SECTOR - PART 2 - CASE STUDIES		16
	1	Real Time Payments and Neo Banking - Wealthtech and Insurtech - Lending and Blockchain - The impact of Fintech on the Financial Inclusion and broader economy	
5	TEACHER SPECIFIC MODULE		10
	Directions)		-
	This module would preferably be set as work based one. Contents would be preferably based on the modules in the current syllabus or any other theme which would make learning the course more effective.		

Essential Readings:

1. Phadke, Sanjay. 2023. Fintech Future: The Digital DNA of Finance Paperback – 23 September. Atlantic
2. Singh, Jaspal. 2022. Financial Technology (FinTech) and Digital Banking in India Hardcover – 1 November.
3. Chishti, S., & Barberis, J. (2016). The Fintech book: The financial technology handbook for investors, entrepreneurs and visionaries. John Wiley & Sons.
4. Gyorfi, L., Ottucsak, G., & Walk, H. (Eds.). (2012). *Machine learning for financial engineering* (Vol. 8). World Scientific.
5. Harvey, C. R., Ramachandran, A., & Santoro, J. (2021). *DeFi and the Future of Finance*. John Wiley & Sons.
6. Kube, N. (2018). Daniel Drescher: Blockchain basics: a non-technical introduction in 25 steps: Apress, 2017, 255 pp, ISBN: 978-1-4842-2603-2.
7. Moilanen, J., Niinioja, M., Seppänen, M., & Honkanen, M. (2019). *API economy 101: changes your business*. BoD-Books on Demand.
8. Realini, C., & Mehta, K. (2015). *Financial Inclusion at the Bottom of the Pyramid*. FriesenPress.
9. Sironi, P. (2016). *FinTech innovation: from robo-advisors to goal based investing and gamification*. John Wiley & Sons.

10. Cevik, S. (2024). Is Schumpeter Right? Fintech and Economic Growth.
11. Baporikar, N. (2021). Fintech challenges and outlook in India. In *Innovative strategies for implementing FinTech in banking* (pp. 136-153). IGI Global.
12. Chugh, B. (2019). Financial Regulation of Consumer-Facing Fintech in India: Status Quo and Emerging Concerns. *Available at SSRN 3520473*.
13. Kamuangu, P. K. (2024). Advancements of AI and Machine Learning in FinTech Industry (2016-2020).
14. Migozzi, J., Urban, M., & Wójcik, D. (2023). “You should do what India does”: FinTech ecosystems in India reshaping the geography of finance. *Geoforum*, 103720.
15. Nelaturu, K., Du, H., & Le, D. P. (2022). A review of blockchain in fintech: taxonomy, challenges, and future directions. *Cryptography*, 6(2), 18.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1, 2, 3 4	
	2		
2	1	Essential Reading 1, 4, 5, 6, 7	
	2		
3	1	Essential Reading 8, 9, 10	
	2		
4	1	Essential Reading 11, 12, 13, 14, 15	

Suggested Readings:

1. Premchand, A., & Choudhry, A. (2018, February). Open banking & APIs for transformation in banking. In *2018 international conference on communication, computing and internet of things (IC3IoT)* (pp. 25-29). IEEE.
2. Rajeswari, P., & Vijai, C. (2021). Fintech industry in India: the revolutionized financesector. *Eur. J. Mol. Clin. Med*, 8(11), 4300-4306.
3. Renduchintala, T., Alfauri, H., Yang, Z., Pietro, R. D., & Jain, R. (2022). A survey of blockchain applications in the fintech sector. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4), 185.
4. Rafay, A. (Ed.). (2019). *FinTech as a Disruptive Technology for Financial Institutions*. IGI Global.

Assessment Rubrics:

Evaluation Type		MARKS
End Semester Evaluation-Theory		35
End Semester Evaluation-Practical		15
Continuous Evaluation- Theory		15
a)	Test Paper- 1	5
b)	Test Paper-2	5
c)	Assignment	5
d)	Seminar	
e)	Book/ Article Review	-
f)	Viva-Voce	-
Continuous Evaluation – Practical Field/Practical Report		10
Total		75

KU6SECECO306: DATABASES AND BASIC COMPUTATIONAL TECHNIQUES FOR DATA ANALYSIS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	SEC	300-399	KU6SECECO306		3	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
2	2	0	25	50	75	1.5 (Hours)

Course Description:

The course intends to provide the students the benefits of secondary data and introduces the secondary sources of socio-economic data in India and the world. The various socio-economic databases will be introduced along with hands on training on how to derive the data and do basic data analysis using Gretl, R, Ms and various Spreadsheet software.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Critically evaluate and compare various databases on the Indian economy, including national income, public finance, money, banking, stock markets, and external sector data	An, E
2	Synthesize techniques for data extraction and interpretation for comprehensive economic research	An, E
3	Interpret and analyze various economic indexes and price data relevant to India	An, E
4	Use scatter plots to visualize and analyze relationships between economic variables, measuring association through covariance and correlation	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

CO s-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓		✓			
CO 2		✓				✓	
CO 3		✓		✓	✓		
CO 4	✓				✓		

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO SECONDARY DATA		12
	1	Databases on the Indian Economy – National Income – Public Finance – Money, Banking and Stock Markets - BoP & External Sector - RBI databases – Government of India, Ministry of Statistics and Programme Implementation Reports	
	2	Economic Survey – Use of Administrative Data - Cross country databases - World Bank Indicators - UN data sets – Penn World Tables Weather and Spatial Data	
2	INTRODUCTION TO UNIT LEVEL DATABASES		12
		Census – Economic Census – Agricultural Census - Government of India, Ministry of Statistics and Programme Implementation	
		Methods of extraction of Unit Level Data - NSSO – ASI – CMIE - Data sources on Kerala – Economic Review – Kerala Migration Surveys	
3	BASIC COMPUTATIONAL TECHNIQUES FOR DATA ANALYSIS		13
	1	Data collection from secondary sources – Data entry & Data Cleaning in Microsoft Excel, Google Spread Sheets, Gretl and R – Time Series, Cross section and Panel data data	
	2	Basic Arithmetic Operations - Graphical analysis of data Percentages – Measures of Central tendencies – Growth – Index and Splicing – Output and Prices - Indexes of India	
4	COMPUTATIONAL TECHNIQUES FOR DATA ANALYSIS WITH EXCEL		13
	1	Measures of Dispersion – Use of Scatter plot – Range – Standard deviation – Co-efficient of Variation – Skewness – Kurtosis – Interest rate Calculation – EMI calculation – Measures of association – Covariance and Correlation – Regression analysis- Linear regression – Interpretation of coefficients – Hypothesis testing using <i>t</i> -statistics, <i>p</i> value and confidence interval.	
5	TEACHER SPECIFIC MODULE		10
		This module aims at engaging students through simple practical and interactive learning activities.	

Essential Readings:

1. Marc Riedel, 2005. Secondary Data. Editor(s): Kimberly Kempf-Leonard in Encyclopedia of Social Measurement, Elsevier. Pages 455-461, <https://doi.org/10.1016/B0-12-369398->

- 5/00071-2.
2. Reserve Bank of India. 2017. Database on the Indian Economy.
<https://dbie.rbi.org.in/DBIE/doc/Brochure%20on%20DBIE%20-2017%20English.pdf>
 3. Reserve Bank of India. 2020. Handbook of Statistics on Indian Economy.
<https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>
 4. World Bank. 2021. World Development Report 2021 : Data for Better Lives. Washington, DC: World Bank. © World Bank.
<https://openknowledge.worldbank.org/handle/10986/35218>
 5. Narayana., Ranjan and Tyagi. 2021. Basic Computational Techniques For Data Analysis: An Exploration in MS-Excel. Sage India.
 6. Government of India. 2011. District Census Handbook.
<https://censusindia.gov.in/2011census/dchb/DCHB.html>
 7. Government of India. 2021, Economic Census. <http://mospi.nic.in/all-india-report-sixth-economic-census>
 8. Government of India. 2016. Agricultural Census 2015-16.
https://agcensus.nic.in/document/agcen1516/ac_1516_report_final-220221.pdf
 9. Government of India. Data on Migration.
<https://censusindia.gov.in/2011census/migration.html>
 10. Government of Kerala. 2020. Economic Review 2020 | State Planning Board, Thiruvananthapuram, Kerala, India
 11. Government of Kerala. Publications.
<http://www.ecostat.kerala.gov.in/index.php/agricultures>
 12. Narayana, Ranjan and Tyagi. 2021. Basic Computational Techniques For Data Analysis: An Exploration in MS-Excel. Sage India.
 13. McLennan, W. 1999. A Guide to the Consumer Price Index. Australian Bureau Of Statistics.
[https://www.ausstats.abs.gov.au/ausstats/free.nsf/0/EC37AE985DB7EB75CA256ADC00C35C6/\\$File/64400_1998.pdf](https://www.ausstats.abs.gov.au/ausstats/free.nsf/0/EC37AE985DB7EB75CA256ADC00C35C6/$File/64400_1998.pdf)
 14. Government of India. 2010. Manual on Consumer Price Index. MOSPI.
http://mospi.nic.in/sites/default/files/publication_reports/manual_cpi_2010.pdf
 15. Narayana, Ranjan and Tyagi. 2021. Basic Computational Techniques For Data Analysis: An Exploration in MS-Excel (2nd edition). Routledge.
 16. Gujarati and Porter. 2009. Basic Econometrics. Tata McGraw Hill. Available online at
https://cbpbu.ac.in/userfiles/file/2020/STUDY_MAT/ECO/1.pdf

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1, 2, 3, 4, 5	
	2		
2	1	Essential Reading 6, 7, 8, 9, 10, 11	
	2		
3	1	Essential Reading 12, 13, 14	
	2		
4	1	Essential Reading 15, 16, 17	

Suggested Readings:

1. Reserve Bank of India. 2017. Database on the Indian Economy.

- <https://dbie.rbi.org.in/DBIE/doc/Brochure%20on%20DBIE%20-2017%20English.pdf>
2. Reserve Bank of India. 2020. Handbook of Statistics on Indian Economy.
<https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>
 3. World Bank. 2021. World Development Report 2021: Data for Better Lives. Washington, DC: World Bank. © World Bank.
<https://openknowledge.worldbank.org/handle/10986/35218>

Assessment Rubrics:

Evaluation Type		MARKS
End Semester Evaluation-Theory		35
Continuous Evaluation Theory		15
a)	Test Paper- 1	5
b)	Test Paper-2	5
c)	Assignment	5
d)	Seminar	
e)	Book/ Article Review	-
f)	Viva-Voce	-
End Semester Evaluation - Practical		15
Continuous Evaluation - Practical Field/Practical Report		10
Total		75

KU6INTECO301: INTERNSHIP

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	INTERNSHIP	300-399	KU6INTECO301		2	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
	4	0	15	35	50	--

Course Description:

A course requiring students to participate in professional employment- related activity or work experience, or cooperative education activity with an entity external to the education institution, normally under the supervision of an employee of the given external entity. A key aspect of the internship is induction into actual work situations. Internships involves working with local industry, businesses, agriculture, health and allied sectors, Local Government institutions, State Planning Board, State Councils/ Boards, elected representatives to the parliament/state assembly/panchayath, media organizations, artists, crafts persons, etc .These opportunities will enable the students to actively engage with the practical aspects of their learning and to improve their employability

- I. **Mandatory Participation:** All students are required to undertake a 2-credit internship within the first six semesters of their program..
- II. **Purpose:** The internship serves two primary purposes: enhancing the employability of the student and fostering research aptitude.
- III. **Scope:** The internship may encompass various activities such as hands-on training in specific skills, equipment, or software. It can also involve the completion of a short project focused on a particular problem or area of study.
- IV. **Supervision:** A designated faculty member, scientist, or instructor from the respective institution where the student is undertaking the internship will serve as the supervisor throughout the duration of the internship.

INTERNSHIP GUIDELINES:

1. **Internship Requirement:** All students are required to participate in either an internship or apprenticeship. This may take place in a firm, industry, organization, or within laboratory

settings, either at their own institution or at other Higher Educational Institutions (HEIs) or research institutions.

2. **Credit Allocation:** For internships, one credit equates to a two-hour engagement per week. In a semester lasting 15 weeks, two credits translate to 60 hours of engagement.
3. **Continuation and Academic Impact:** Students engaged in internships may continue their placements provided their academic commitments, including attendance and assignments, are maintained. Opportunities to extend internships into summer and winter breaks may be available if necessary.
4. **Internship Objectives:** The internship aims to achieve the following:
 - a) Developing problem-solving skills for real-world challenges.
 - b) Cultivating an understanding of research ethics, professional conduct, and accountability.
 - c) Enhancing academic productivity through improved writing, reading, and critical thinking skills, contributing to societal and economic issues.
 - d) Fostering adaptability, flexibility, teamwork, and collaboration.
 - e) Improving prospects for future employment and clarifying career goals.
 - f) Instilling strong work ethics, time management, and professionalism in a professional setting.
5. **Role of Internship Coordinator:**
 - a) An internship coordinator, nominated by the Department Council (DC), will monitor and supervise students during their internship period.
 - b) The internship supervisor from the host institution will ensure the intern's regularity at the workplace. Upon completion, the student must submit a project report, evaluated by a faculty member designated by the department council.
6. **Selection of Organizations and Mentors:** Students may choose from various organizations and mentors, including HEIs, research organizations, industries, media companies, retail service providers, government agencies, NGOs, and international institutions.
7. **Guidelines for Internship Report:**
 - a) The internship certificate, endorsed by the Head of the Institution, should include the student's name, internship course details, institute name, type of work, and duration.
 - b) The internship report should be 3000-5000 words, typed in Times New Roman, size 12, with 1.5 spacing, double-sided, and neatly soft-bound. It must be submitted to the relevant department before the VI Semester university exam notification.
 - c) The report should include:
 - Title page with internship details.
 - Declaration.
 - Certificate signed by the Head of the Institution.
 - Index.
 - Content covering introduction, nature of work, methodology, outcomes, limitations, and suggestions.

INTERNSHIP EVALUATION

Internship evaluation will be conducted internally, employing a continuous assessment approach by a committee formed within the Department Council of the student's college where they are enrolled in the UG (Honours) program. The allocation of credits and marks for the Internship will occur solely upon completion of semester 6. This evaluation system encompasses continuous assessment throughout the internship period and culminates in an end-semester viva-voce examination, focusing on the submitted report.

Evaluation Components for Internship and their Weightage

Sl. No.	Components	Marks for Internship	Credits Weightage
1	Continuous evaluation through interim presentations and reports by the committee internally constituted by the Department Council	15	30%
1.1	Acquisition of skill set	5	
1.2	Interim Presentation	5	
1.3	Punctuality	5	
2	End Semester Evaluation- Practical	35	
2.1	Report of Institute Visit/ Study Tour	10	20%
2.2	(End-semester viva-voce examination to be conducted by the committee internally constituted by the Department Council) Evaluation of day-to-day records, the report of internship supervisor, and final report submitted for the end semester viva-voce examination before the committee internally constituted by the Department Council	25	50%
	Total Marks	50	

Assessment Rubrics:

Evaluation Type		MARKS
1.Continuous Evaluation - Practical		15
1.1	Acquisition of skill set	5
1.2	Interim Presentation	5
1.3	Punctuality	5
2.End Semester Evaluation- Practical		35
2.1	Report of Institute Visit/ Study Tour	10
2.2	Evaluation of the report	25
	a)Evaluation of day-to-day records	5
	b)the report of internship supervisor	5
	c)final report submitted	10
	d)viva-voce examination	5
Total		50

KU7DSCECO401: ADVANCED MICROECONOMICS I

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCECO401		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course enables the students to travel through more advanced theoretical developments in the branch of microeconomics. The course would experience the students to widen their theoretical understanding and would provide strong micro foundations for other disciplines of economics. The course starts with the consumer behaviour analysis under uncertainty conditions. More advanced theoretical developments in production, cost and technology are explored in the subsequent module. This is followed by analysis of developments in game theory and applications of game theory to the oligopoly markets. In brief the course widens the theoretical understanding of an undergraduate student of economics by exposing them to more advanced theoretical developments in the branch of microeconomics

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
CO 1	Analyse the behaviour of a consumer under uncertainty conditions in the light of sound theories	An, E
CO 2	Analyse conditions of production, cost and technology in the light of given theories	An, E
CO 3	Evaluate the dynamics of game theory as a tool for understanding market conditions like oligopoly	An, E
CO 4	Analyse oligopoly market by applying tools and techniques from game theory	An, E
CO 5	Analyse and demonstrate real world scenarios and cases in the light of sound microeconomic theories	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

COs -	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓		✓		
CO 2	✓		✓		✓		
CO 3	✓		✓		✓		
CO 4	✓		✓		✓		
CO 5	✓		✓		✓		

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	UNCERTAINTY AND CHOICE		15
	1	The expected utility analysis	4
		a) St. Petersburg paradox and Bernoulli's solution to the paradox,	
		b) Neumann – Morgenstern Theorem and expected utility maximization	
	2	Different preference towards risk	3
		a) Risk aversion, risk loving and risk neutral	
		b) Risk aversion and fair bets	
		c) Risk aversion and insurance	
	3	The demand for risky assets	2
		Trade-off between risk and return	
4	The portfolio or investor's choice problem	2	
	Choice between risk and return		
5	The state preference approach to 'choice under uncertainty'	4	
	Risk aversion under state preference model		
2	PRODUCTION, COST AND TECHNOLOGY		10
	1	Production functions: fixed proportions, Cobb Douglas and CES production functions (properties)	3
	2	Production function with two outputs: Economies of scope	1
		a) Degree of economies of scope	
	3	Technical progress: Measurement	2
		a) Growth accounting	
	b) Technical progress in Cobb-Douglas production function: input augmenting technical progress		
4	Cost functions: properties of cost functions – Fixed Proportions, Cobb-Douglas and CES cost functions	2	

	5	Input substitution: Elasticity of Substitution	1
	6	Dynamic changes in cost: The Learning curve	1
	GAME THEORY AND ECONOMIC BEHAVIOUR		15
3	1	Gaming and strategic decisions – Co-operative Vs Non-co-operative games	1
	2	Dominant strategies	2
	3	Nash Equilibrium	2
		a) The product choice problem	
	4	Maxi-mini strategies	2
	5	Mixed strategies: The battle of sexes	3
	5	Repeated game: Tit for tat strategy,	3
		a) Finite and infinitely repeated games	
	6	Commitment and credibility: bargaining strategy	2
a) Entry deterrence			
	OLIGOPOLY WITH GAME THEORY		10
4	1	Equilibrium in oligopoly – Cournot Model and the Cournot Nash Equilibrium	3
	2	Stackelberg Model and first mover advantage	2
	3	Bertrand's Equilibrium and the Nash equilibrium in prices	2
	4	Competition Vs Collusion: The prisoner's dilemma	3
a) Implication of prisoner's dilemma for oligopoly pricing: Game theoretic approach to price rigidity and kinked demand curves			
	Teacher Specific Module		10
5	Directions: <i>Illustrations and cases from textbooks of Advanced Level Microeconomics</i>		-
	This module would preferably be set as a case study-based module keeping standard textbooks of Microeconomics as basic reference [To site a few - (1) Microeconomics by <i>Pindyck, R. S., Rubinfeld, D. L., & Mehtha P L</i> (2) Principles of Microeconomics by <i>Mankiv. G</i> , (3) Microeconomics by <i>Krugman, P & Wells, R.</i>]. Contents would be preferably based on the modules in the current syllabus or any other topic so as to give better learning experience of the course at the advanced level.		10

Essential Readings:

1. Nicholson, W., & Snyder, C. M. *Microeconomic Theory Basic Principles and Extensions*. Cengage Learning. Latest Edition
2. Pindyck, R. S., Rubinfeld, D. L., & Mehtha P L. *Microeconomics*. Pearson Education. Latest Edition, 437 - 463

3. Mankiw. G, Principles of Microeconomics, Cengage-MindTap, Latest Edition
4. Krugman, P & Wells, R. Microeconomics, Worth Publishers, Latest Edition

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1	-
		Essential Reading 2	-
	2	Essential Reading 1	-
		Essential Reading 2	-
	3	Essential Reading 1	-
		Essential Reading 2	
	4	Essential Reading 1	-
		Essential Reading 2	-
	5	Essential Reading 1	-
		Essential Reading 2	
2	1	Essential Reading 1	-
		Essential Reading 2	
	2	Essential Reading 1	-
		Essential Reading 2	-
	3	Essential Reading 1	-
		Essential Reading 2	
	4	Essential Reading 1	-
		Essential Reading 2	
	5	Essential Reading 1	-
		Essential Reading 2	-
	6	Essential Reading 2	-
		Essential Reading 1	-
3	1	Essential Reading 2	-
		Essential Reading 1	
	2	Essential Reading 2	-
		Essential Reading 1	
	3	Essential Reading 2	-
		Essential Reading 1	
	4	Essential Reading 2	-
		Essential Reading 1	
	5	Essential Reading 2	-
		Essential Reading 1	
	6	Essential Reading 2	-
		Essential Reading 1	-
4	1	Essential Reading 2	-
		Essential Reading 1	-
	2	Essential Reading 2	-

		Essential Reading 1	
	3	Essential Reading 2	-
		Essential Reading 1	-
	4	Essential Reading 2	
		Essential Reading 1	
5	-	Essential Reading 2, 3 and 4	Preferably

Suggested Readings:

1. Salvatore. D, Principles of Microeconomics, Oxford International, Latest Edition
2. Baumol, W. J. (1951). The Neumann-Morgenstern Utility Index--An Ordinalist View. *Journal of Political economy*, 59(1), 61-66.
3. Machina, M. J. (1990). Expected utility hypothesis. *Utility and probability*, 79-95.
4. Hirshleifer, J. (1966). Investment decision under uncertainty: Applications of the state-preference approach. *The Quarterly Journal of Economics*, 80(2), 252-277.
5. Barro, R. J. (1999). Notes on growth accounting. *Journal of economic growth*, 4, 119-137.
6. Panzar, J. C., & Willig, R. D. (1981). Economies of scope. *The American Economic Review*, 71(2), 268-272.
7. Leonard, R. J. (1994). Reading Cournot, reading Nash: The creation and stabilization of the Nash equilibrium. *The Economic Journal*, 104(424), 492-511.
8. Hirata, D., & Matsumura, T. (2010). On the uniqueness of Bertrand equilibrium. *Operations research letters*, 38(6), 533-535.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	4
f)	Viva-Voce	4
g)	Field Report	
Total		100

KU7DSCECO402: ADVANCED MACROECONOMICS I

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCECO402		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This paper presents a macroeconomic picture of an economy in a bit depth. The first module focuses on the presentation of an economy through Aggregate demand and Aggregate supply. Theoretical advances in demand and supply of money are dealt in the second module. Developments in the theories of consumption and investments are presented in the third module and the three sector ISLM model is presented in the last module”

Course Prerequisite: NIL

Course Outcomes:

CONo.	Expected Outcome (Short Version)	Learning Domain
CO 1	Recall key macroeconomic concepts and theories (Keynesian, IS-LM, Monetarist, etc.).	Remember (R)
CO 2	Understand interactions among consumption, investment, and policies in macroeconomics.	Understand (U)
CO 3	Apply IS-LM and investment models to real economic data and policy analysis.	Apply (A)
CO 4	Analyse data and models to identify patterns and evaluate macroeconomic policy effectiveness.	Analyse (An)
CO 5	Evaluate the relevance and effectiveness of major macroeconomic theories and policies.	Evaluate (E) C

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓□	✓□				✓□	
CO 2	✓□	✓□	✓□		✓□		
CO 3	✓□	✓□	✓□			✓□	
CO 4	✓□	✓□	✓□		✓□		✓□
CO 5	✓□	✓□			✓□		✓□

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOUR S 60
1	BEHAVIOURAL FOUNDATIONS OF MACRO ECONOMICS		13
	1	Keynesian consumption function and its properties,	2
	2	Empirical findings regarding consumption function – Kuznets consumption puzzle	2
	3	Alternative theories – Permanent income hypothesis, Absolute income hypothesis, Life cycle hypothesis and Relative income hypothesis.	6
	4	Keynesian theory of investment – The marginal efficiency of investment	1
	5	Marginal efficiency of capital (MEC) and Net present value (NPV) criterion of investment	1
	6	Accelerator Theory of Investment	1
2	NEO-CLASSICAL AND KEYNESIAN SYNTHESIS		12
	1	Hicks-Hansen ISLM Model- IS and LM curves in two sector model general Equilibrium	3
	2	Factors determining slope and shifts in IS and LM curves	2
	3	Relative Effectiveness of Monetary and Fiscal Policies-Keynesian and Classical Versions	2
	4	Extension of ISLM model with Labour market and flexible prices– Unemployment and labour market	3
	5	Three sector macro model– Keynesian and Neo-classical versions	2
3	CONTROVERSIES IN MACRO ECONOMICS		13
	1	Walrasian General equilibrium- Walrasian law, Walrasian Auctioneer	3
	2	Money and time, production and exchange in Walrasian model	3
	3	The reinterpretation of Keynes as non Walrasian equilibrium model	3
	4	Dual decision distinction	1
	5	Neo-Keynesian quantity constrained model	3
4	THE MONETARIST COUNTER REVOLUTION		12
	1	Monetarist Propositions	1
	2	The Reformulation of the Quantity Theory of Money: Friedman’s Restatement of the Quantity Theory	2
	3	Output, Inflation, and Unemployment: The Natural Rate Theory	3
	4	Monetary Policy, Output, and Inflation: Friedman’s Monetarist View	2
	5	A Keynesian View of the Output–Inflation Trade-Off	2

6	The Phillips Curve: A Keynesian Interpretation	2
5	TEACHER SPECIFIC MODULE	10
	<i>Directions:</i> Discuss how behavioural economics informs the design of more effective macroeconomic policies, particularly in areas such as fiscal policy, monetary policy, and regulatory interventions.	

Essential Readings:

1. Mankiw, N. G. (2010). *Elementary macroeconomics* (7th ed.). Worth Publishers.
2. Dwivedi, D. N. (2006). *Macroeconomics: Theory and policy*. Tata McGraw-Hill Publishing Company.
3. Froyen, R. T. (n.d.). *Macroeconomic theories and policies*. Pearson Education, Inc.
4. Levacic, R., & Rebman, A. (1986). *Macroeconomics* (2nd ed.). Macmillan.
5. Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
6. Akerlof, G. A., & Shiller, R. J. (2009). *Animal spirits: How human psychology drives the economy, and why it matters for global capitalism*. Princeton University Press.
7. Camerer, C., Loewenstein, G., & Rabin, M. (Eds.). (2011). *Advances in behavioral economics*. Princeton University Press.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Readings 1	
	2	Essential Readings 1	
	3	Essential Readings1/2	
	5	Essential Readings1	
	6	Essential Readings1	
2	1	Essential Readings3/4	
	2	Essential Readings3/4	
	3	Essential Readings3/4	
	4	Essential Readings3/4	
	5	Essential Readings3/4	
3	1	Essential Readings3/4	--
	2	Essential Readings3/4	--
	3	Essential Readings3/4	
	4	Essential Readings3/4	
	5	Essential Readings3/4	
4	1	Essential Readings4	--
	2	Essential Readings4	--
	3	Essential Readings4	
	4	Essential Readings4	
	5	Essential Readings4	
	6	Essential Readings4	--

Suggested Readings:

1. Ahuja, H. L. (2014). *Macroeconomics: Theory and policy*. S. Chand.
2. D'Souza, E. (2009). *Macroeconomics*. Pearson Education.
3. Froyen, R. T. (n.d.). *Macroeconomic theories and policies*. Pearson Education, Inc.
4. Mankiw, N. G. (2010). *Elementary macroeconomics* (7th ed.). Worth Publishers.

5. Mukherjee, S. (2013). *Macroeconomics: A global text*. New Central Book Agency (P) Ltd.
6. Mukherjee, S. (2021). *Analytical macroeconomics: From Keynes to Mankiw*. New Central Book Agency (P) Ltd.
7. Stonier, A. W., & Hague, D. C. (n.d.). *A textbook of economic theory*. Longman Group.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	3
f)	Viva-Voce	3
g)	Field Report	
Total		100

KU7DSCECO403: ADVANCED QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCECO403		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course aims to equip students with the statistical tools and quantitative techniques for economic analysis. The course starts with probability distributions followed by detailed account of sampling distributions. Students are then exposed to the construction of confidence intervals for population parameter. Then estimation and hypothesis testing procedure are explained.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
CO 1	Apply the concept of probability distribution in analysing economic phenomenon	A, An
CO 2	Explain and demonstrate the idea of sampling distribution	An
CO 3	Construct confidence interval for population parameter and apply it for analysing economic phenomenon	An
CO 4	Explain and demonstrate the hypothesis testing procedure	An
CO 5	Test hypothesis using appropriate procedure and apply the same for analysing economic phenomenon	A, An

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs							
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1			✓ <input type="checkbox"/>				

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CO 2		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>				✓ <input type="checkbox"/>
CO 3	✓ <input type="checkbox"/>		✓ <input type="checkbox"/>			✓ <input type="checkbox"/>	
CO 4	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>		✓ <input type="checkbox"/>		
CO 5	✓ <input type="checkbox"/>		✓ <input type="checkbox"/>				✓ <input type="checkbox"/>

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	PROBABILITY DISTRIBUTION		14
	1	Review of major probability concepts and rules.	3
	2	Random Variables-Mathematical expectation and variance with properties- Moments-Probability distribution.	2
	3	Discrete probability distribution: Binomial and Poisson distribution and their properties.	4
	4	Continuous probability distribution: Uniform probability distribution-Normal probability distribution and log normal distributions-Exponential probability distribution.	5
2	SAMPLING DISTRIBUTION		12
	1	Review of sampling concepts and sampling methods	2
	2	Law of large numbers-Central limit theorem-Sampling distribution of mean and proportion- Sampling distribution of difference of means and difference of proportion.	4
	3	Chi-square distribution and its properties- F distribution and its properties- Student's t distribution and its properties.	4
	4	Distribution in regression and correlation.	2
3	ESTIMATION AND TESTING OF HYPOTHESIS		10
	1	Terms and concepts of statistical estimation-Point estimation- Properties of a good estimator- Methods of estimation- Interval estimation.	3
	2	Estimation of means, difference of means, population proportion and difference of proportions- Estimation in regression and correlation	3
	3	Basic concepts of statistical testing- Null and alternative hypothesis, Type I and II errors, level of significance, one tail and two tail tests, critical regions, p-value etc.	2

	4	Hypothesis testing procedure- Parametric and non-parametric tests- Basic difference and relative merits.	2
4	HYPOTHESIS TESTING		14
	1	Small sample and large sample tests – Test for mean, equality of means, paired t test, test for proportion, equality of proportions, test for significance of correlation coefficient, test for significance of regression coefficient.	5
	2	F test- one way and two-way ANOVA.	3
	3	Chi Square test- Tests of goodness of fit, independence of attributes and homogeneity.	3
	4	Sign test, Wilcoxon Signed Rank test - Mann Whitney U Test- Kruskal-Wallis H test.	3
5	Teacher Specific Module		10
	<i>Directions:</i> Exercises based on sample analytical questions at the end of the modules from any of the essential reading suggested in the syllabus.		
	The module would be preferably set as exercise based one on the modules in the syllabus or any other theme which would enhance learning experience of the course.		

Essential Readings:

1. Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2018). *Statistics for business & economics*. Cengage.
2. Doane, D. P., & Seward, L. E. (2022). *Applied statistics in business and economics*. McGraw Hill.
3. Hogg, R. V., Tannis, E. A., & Zimmerman, D. L. (2018). *Probability and statistical inference*. Pearson.
4. Hooda, R. P. (2013). *Statistics for business and economics*. Vikas Publishing House.
5. Whitte, R. S., & Whitte, J. S. (2017). *Statistics*. Wiley.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1, 2, 3, 4, 5	
	2	Essential Reading 3, 4	
	3	Essential Reading 1, 3, 4	
	4	Essential Reading 1, 2, 3, 4	
2	1	Essential Reading 1, 3	
	2	Essential Reading 1, 2, 4, 5	
	3	Essential Reading 4	
	4	Essential Reading 4	
3	1	Essential Reading 1, 4, 5	
	2	Essential Reading 4	
	3	Essential Reading 4	

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	4	Essential Reading 1, 2, 4, 5	
4	1	Essential Reading 1, 2, 3, 4, 5	
	2	Essential Reading 1, 2, 3, 5	
	3	Essential Reading 1, 2, 3, 4, 5	
	4	Essential Reading 2, 4, 5	
5	-	Essential Reading 1 - 5	Preferably

Suggested Readings:

1. Aczel, A. D., & Sounderpandian, J. (2008). *Business statistics*. McGraw Hill.
2. Freedman, D., Pisani, R., & Purves, R. (2007). *Statistics*. W.W. Norton & Company.
3. Gupta, S. C., & Kapoor, V. K. (2018). *Fundamentals of applied statistics*. Sultan Chand & Sons.
4. Gupta, S. C., & Kapoor, V. K. (2020). *Fundamentals of mathematical statistics*. Sultan Chand & Sons.
5. Gupta, S. P. (2012). *Statistical methods*. Sultan Chand & Sons.
6. Lind, D. A., Marchel, W. G., & Wathen, S. A. (2006). *Basic statistics for business and economics*. Mc Graw Hill.
7. Spigel, M. R., & Stephens, L. J. (2008). *Schaum's outline of theory and problems of statistics*. McGraw-Hill.
8. Stephens, L. J. (1998). *Beginning statistics*. McGraw-Hill.
9. Triola, M. F. (2019). *Essentials of statistics*. Pearson.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	4
g)	Field Report	4
Total		100

KU7DSCECO404: DEVELOPMENT ISSUES OF INDIAN ECONOMY II

Semester	Course Type	Course Level	Course Code			Credits	Total Hours
VII	DSC	400-499	KU7DSCEECO404			4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)	
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total		
4	- 0	-0	30	70	100	2	

Course Description:

This course provides a deep investigation into the complexities of the Indian economy, one of the world's fastest-growing major economies. It transcends introductory concepts to explore current challenges, policy debates, and future prospects. Specifically, the course examines the role of taxation and public debt in financing the Indian government, as well as the impact of the World Trade Organization (WTO) on the Indian economy. Core principles of the WTO are explored, along with analysis of key agreements and an assessment of the opportunities and challenges presented by globalization for India. Additionally, the course explores into contemporary methods and theoretical foundations for comparing countries and international actors, examining various aspects of international relations, economics, politics, and social development through a comparative lens.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
CO 1	Identify and analyze the key development challenges faced by the Indian economy, including poverty, unemployment, inequality etc	R,U
CO 2	Apply economic concepts and theories to understand the causes and consequences of development issues.	A,An
CO 3	Analyze the core principles of the WTO, such as non-discrimination and free trade. Evaluate the impact of trade liberalization on different sectors of the Indian economy.	E,A
CO 4	Examine different types of taxes in India, including direct taxes and indirect taxes. Evaluate different debt management strategies employed by the Indian government.	U,C

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CO 5	Develop critical thinking skills for evaluating international phenomena. Understand the theoretical frameworks used for international comparisons.	
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**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs							
COs	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓					
CO 2				✓			
CO 3	✓						
CO 4					✓	✓	
CO 5						✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	ISSUES OF DEVELOPMENT		10
	1	Unemployment-Nature and types of unemployment in India, Magnitude, Changing dimensions of unemployment and employment, Causes of unemployment, Government policies and measures	2
	2	Poverty- Concept and Incidence of Poverty in India, Poverty estimates, Growth and Poverty, Strategy of Poverty Alleviation;	2
	3	Inequality-Income inequality in India: Magnitude and Nature, Growth and Inequality, Causes of income inequality, Government policies and measures.	2
	4	Growth and extend of Black money in India, Demonetization and its impacts on Indian economy	2

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	5	INSTITUTIONAL RE-STRUCTURING -NITI AYOK	2
		Problems of States Resources and Indebtedness-	
2	FISCAL ECONOMICS OF INDIA		12
	1	Fiscal Policy, Budget, : Meaning and Components, Financial Sector Reforms, FRBM Act and its challenges	2
	2	Sources of public revenue- Taxation- Types of Taxes - Direct Taxes and indirect taxes - Tax Reforms and GST – Tax Revenue and its devolution to states- issues	3
	3	Public Expenditure- Public Expenditure Management in India- Social Sector Expenditure in India	2
	4	Public Debt in India, its magnitude -Public Debt Management in India - Impact of Public Debt on Economic Growth and Inflation.	2
	5	Principles of Fiscal Federalism- Fiscal Federalism in India- Centre-State Financial Relations	3
3	INTERNATIONAL RELATIONS AND INDIAN ECONOMY		14
	1	Indias economic interaction with the world economy, A comparative assessment of India’s development experience with high performing Asian economies- Singapore, South Korea and China and Malaysia	3
	2	Introduction to International Comparisons: Theoretical Frameworks and Methodologies	2
	3	Different rounds of trade negotiations and trade agreements - Core Principles of the WTO: Most-Favored-Nation Treatment, National Treatment, and Non-discrimination	3
	4	Understanding Key WTO Agreements: GATT, GATS, TRIPS, and TBT	4
	5	Impact of WTO agreements on Indian agriculture and industries	2
4	RECENT DEVELOPMENTS AND ISSUES		14
	1	Digital Economy and E-Governance- Growth of digital payment systems (UPI, digital wallets) - Role of technology in governance (e-Governance initiatives) - Impact of digitalization on traditional business models.	3

	2	Climate Change and Sustainable Development - India's climate change policies and international commitments - Renewable energy initiatives and transition from fossil fuels - Sustainable urban development and smart cities.	3
	3	Public Health Economics - Economic implications of healthcare policies - Role of public health infrastructure in economic development - Impact of health crises on the economy.	3
	4	Innovation and Entrepreneurship - Startup ecosystem and innovation hubs in India - Government policies promoting entrepreneurship - Case studies of successful Indian startups.	3
	5	Economic Impact of COVID-19 and Recovery Measures - Analysis of the economic downturn caused by the pandemic - Government stimulus packages and their effectiveness Sectoral impacts and recovery trajectories.	2
	TEACHER SPECIFIC MODULE		10
5	<i>Directions</i>		
	Teacher can assign different topics related with Kerala economy like performance of agriculture and industry in Kerala, food security and PDS in Kerala etc		

Essential Readings:

1. Agrawal, A. N. (2015). *Indian economy*. New Age International Pvt.
2. Anjum, Z. (2014). *Startup capitals: Discovering the global hotspots of innovation*. Random House India.
3. Caprio, G., Beck, T., & Claessens, S. (2021). *The long shadow of the global financial crisis: Public interventions in the financial sector*. Cambridge University Press.
4. Dhingra, C. (n.d.). *Indian economic problems*. S. Chand & Company.
5. Dhingra, I. C. (2023). *Sustainable development in India and South-East Asia*. Routledge.
6. Dutt, R., & Sundharam, K. P. M. (n.d.). *Indian economy*. S. Chand & Company Ltd.
7. Government of India. (Current year). *Economic survey*. Ministry of Finance.
8. Kapila, U. (Ed.). (n.d.). *Indian economy since independence* (Rev. ed.). Academic Foundation.
9. Kulkarni, P. M., & Ladhe, M. S. (Eds.). (2018). *Public health in India: Technology, governance and service delivery*. Springer.
10. Mishra, J. K., & Puri, V. K. (n.d.). *Indian economy: The development experience*. Himalaya Publishing House.
11. Murty, M. N., Kumar, S., & James, A. J. (2015). *Sustainable development: An Indian perspective*. Springer.
12. Panda, P. K. (2020). *Health economics in India*. Sage Publications.
13. Rahman, A., & Tiwari, N. (2021). *Development, governance and gender in South Asia*. Springer.
14. Rao, M. G. (2022). *Studies in Indian public finance*. Oxford University Press.

15. Sadler, T. R. (2020). *Pandemic economics*. Routledge.
16. Śledziowska, K., & Włoch, R. (2021). *The economics of digital transformation: The disruption of markets, production, consumption, and work*. Routledge.
17. Shah, R., Sharma, A., & Mironko, A. (Eds.). (2014). *Innovation, entrepreneurship, and the economy in the US, China, and India*. Springer.
18. Kumar, R. (2019). *Digital India: Understanding information, communication and social change*. Oxford University Press.
19. Dubash, N. K. (Ed.). (2012). *Climate change and India: A reader*. Oxford University Press.

Reference Distribution: Reference number taken from essential readings

Module	Unit	Reference No.	Remarks
1	1	Essential readings 2,3	
	2	Essential readings 1,5	
	3	Essential readings 2 ,4	
	4	Essential readings 2 .6	
	5	Essential readings 1-6	
2	1	Essential reading 1	
	2	Essential readings 9,3	
	3	Essential readings 9,3	
	4	Essential readings 10-14	
	5	Essential readings 10-14	
3	1	Essential readings 2,4,	--
	2	Essential reading 2	--
	3	Essential readings 4,5	--
	4	Essential reading 5	
		Essential readings 3-8	
4	1	Essential reading 8	--
	2	Essential reading 7	--
	3	Essential readings 15-19	
	4	Essential readings 15-19	
	5	Essential readings 15-19	--

Suggested Readings:

1. Thirlwall, A. P. (1994). Growth and Development: With Special Reference to Developing Economies, Macmillan International Higher Education.
2. Desai, B. (2008) Industrial Economy in India, Himalaya Publishing House, Mumbai.
3. Basu, K. (Ed.). (2004). India's Emerging Economy: Performance and Prospects in the 1990s and Beyond. MIT press

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report/	8
Total		100

KU7DSCECO405: READINGS IN POLITICAL ECONOMY

Semester	Course Type	Course Level	Course Code	Credits	Total Hours	
VII	DSC	400-499	KU7DSCECO405	4	60	
Learning Approach (Hours/ Week)			Marks Distribution			
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	Duration of ESE (Hours)
4	0	0	30	70	100	

Course Description:

The course provides an overview of the topics of the state, the markets, the theories of value and distribution by exploring the philosophies of the various schools of economic thought. The methodological underpinnings from classical political economy to neoliberal school are highlighted while the various economic systems are also given its due importance.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Examine the subject of Political Economy	A, An
2	Evaluate the theories of value and its importance in economic thought	An, E
3	Examine critically the various schools of political economy	An, E
4	Examine critically the various economic systems	An, E
5	Explain the crises of capitalism	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓						
CO 2	✓		✓				
CO 3	✓						
CO 4	✓		✓			✓	
CO 5	✓		✓			✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO POLITICAL ECONOMY		12
	1	Introduction to Political Economy	2
	2	Pre-Classical schools of thought	3
	3	Classical Political Economy	4
	4	Value theory and distribution	3
2	MARXIAN POLITICAL ECONOMY		14
	1	Marxian theory of value	4
	2	Economic Class, Class consciousness, Class Conflicts	3
	3	Mode of Production, Production relations and Materialism	3
	4	Capitalism, its origin and Crisis	4
3	POST MARXIAN POLITICAL ECONOMY		12
	1	Marginalism, Neo-classical Political Economy Keynesian Political Economy	3
	2	Economic systems, Types of capitalism and Crises of Capitalism	4
	3	Human Psychology, Animal Spirits, Accumulation and Global Capitalism	3
	4	Rise of Neoliberalism	2
4	FEATURES OF GLOBAL AND INDIAN POLITICAL ECONOMY		12
	1	The contemporary global economy	3
	2	Institutions, Human Capital and Development	3
	3	Rising Inequality and Capital in the Twenty-First Century	3
	4	Political Economy of India	3
5	TEACHER SPECIFIC MODULE		10
	Directions: Analytical work based on global data sets on inequality and politics		-
	The teacher needs to introduce preferably two global datasets pertaining to inequality and politics to the students and assign tasks based on the data		10

	available. It can be data analysis or readings available in the websites. Links are as follows; 1.1 https://wid.world/ 1.2 https://wpid.world/	
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Essential Readings:

1. Heilbroner, R. L. (1999). *The worldly philosophers: The lives, times, and ideas of the great economic thinkers*. Retrieved from http://starbooksfeaa.weebly.com/uploads/5/4/8/6/54869709/the_wordly_philosophers.pdf
2. Fogarty, M., & Senior Sophister. (1996). *A history of value theory*. Retrieved from https://www.tcd.ie/Economics/assets/pdf/SER/1996/Martin_Fogarty.html
3. Ruccio, D. (2022). *Marxian economics: An introduction*. Wiley.
4. Caporaso, J. A., & Levine, D. P. (1992). *Theories of political economy*. Cambridge University Press.
5. Dobb, M. (1962). *Capitalism yesterday and today*. Monthly Review Press.
6. Caporaso, J. A., & Levine, D. P. (1992). *Theories of political economy*. Cambridge University Press.
7. Wallerstein, I. (2004). *World-systems analysis: An introduction*. Duke University Press.
8. Akerlof, G. A., & Shiller, R. J. (2009). *Animal spirits: How human psychology drives the economy, and why it matters for global capitalism*. Princeton University Press.
9. Harvey, D. (2005). *A brief history of neoliberalism*. Oxford University Press.
10. Chang, H.-J. (2010). *23 things they don't tell you about capitalism*. Penguin Books.
11. Acemoglu, D., Gallego, F. A., & Robinson, J. A. (2014). Institutions, human capital, and development. *Annual Review of Economics*, 6, 875–912. <https://doi.org/10.1146/annurev-economics-080213-041119>
12. Piketty, T., & Goldhammer, A. (Trans.). (2014). *Capital in the twenty-first century*. Harvard University Press.
13. Basu, K. (2018). *A short history of India's economy* (WIDER Working Paper No. 124). UNU-WIDER. <https://doi.org/10.35188/UNU-WIDER/2018/562-3>

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1, 2	
	2		
	3		
	4		
2	1	Essential Reading 3, 4, 5	
	2		
	3		
	4		
3	1	Essential Reading 6, 7, 8, 9	
	2		
	3		
	4		

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4	1	Essential Reading 10, 11, 12, 13	
	2		
	3		
	4		
5	-	1.1 https://wid.world/ 1.2 https://wpid.world/	Preferably

Suggested Readings:

1. *Schools of thought*. (n.d.). *History of Economic Thought Website*. Retrieved from <https://www.hetwebsite.net/het/thought.htm>
2. Fine, B., & Milonakis, D. (2009). *From political economy to economics: Method, the social and the historical in the evolution of economic theory*. Routledge.
3. Caporaso, J. A., & Levine, D. P. (1992). *Theories of political economy*. Cambridge University Press.
4. Heilbroner, R. L. (1999). *The worldly philosophers: The lives, times, and ideas of the great economic thinkers*. Retrieved from http://starbooksfeaa.weebly.com/uploads/5/4/8/6/54869709/the_wordly_philosophers.pdf
5. Hunt, E. K., & Lautzenheiser, M. (2011). *History of economic thought: A critical perspective* (3rd ed.). Routledge.
6. Dobb, M. (2010). *Theories of value and distribution since Adam Smith: Ideology and economic theory* (Chapter 6). Cambridge University Press.
7. Heinrich, M. (2004). *An introduction to the three volumes of Marx's Capital*. Retrieved from <http://digamo.free.fr/heinrich.pdf>
8. Luxemburg, R. (1913). *The accumulation of capital*. Retrieved from <https://www.marxists.org/archive/luxemburg/1913/accumulation-capital/accumulation.pdf>
9. Wallerstein, I. (1974). The rise and future demise of the world capitalist system: Concepts for comparative analysis. *Comparative Studies in Society and History*, 16(4), 387–415. Retrieved from <http://bev.berkeley.edu/ipe/readings/Wallerstein.pdf>
10. Tribe, K. (1981). *Genealogies of capitalism*. Macmillan Press.
11. Friedman, M. (1962). *Capitalism and freedom*. University of Chicago Press.
12. Harvey, D. (2005). *A brief history of neoliberalism*. Oxford University Press.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	-
f)	Viva-Voce	-
g)	Field Report/Data analysis	- 8
Total		100

KU8DSCECO406: ADVANCED MICROECONOMICS II

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCECO406		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	-	-	30	70	100	2

Course Description:

This course enables the students to equip with advanced theoretical developments in the branch of microeconomics. The course would enable the students to widen their theoretical understanding and provide strong micro foundations for other disciplines of economics. The course starts with analysis of markets with asymmetric information. More advanced analysis of competitive markets is dealt in the subsequent module. This is followed by modern theories of firm and analysis of factor markets. In nutshell, this course also widens the theoretical understanding of an undergraduate student of economics by exposing them to more advanced theoretical developments in the branch of microeconomics

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Analyse and assess the working of markets under conditions of asymmetric information	An, E
2	Analyse and appraise efficiency dynamics of competitive market applying analytical tools from welfare economics	An, E
3	Analyse and judge possible changes in market outcomes when market becomes imperfect by applying analytical tools from welfare economics	An, E
4	Analyse and assess the dynamics of joint stock firms and their pricing strategies in the light of alternative pricing theories	An, E

5	Analyse and evaluate the working of factor market with competitive and imperfect market elements	An, E
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**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓		✓		
CO 2	✓		✓		✓		
CO 3	✓		✓		✓		
CO 4	✓		✓		✓		
CO 5	✓		✓		✓		

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	MARKET WITH ASYMETRIC INFORMATION		12
	1	Efficiency of the competitive markets	1
		a) Why markets fail: Market power, externalities, public goods, incomplete information and information asymmetry	
	2	Quality, uncertainty and the market for lemons: market for used cars	2
	3	Implications of asymmetric information: adverse selection, market for insurance and market for credit	1
	4	Market signalling: model of job market signalling	2
	5	Principal-Agent problem	2
	6	Moral hazard and hidden actions model	2
7	Asymmetric information in the labour markets: efficiency wage theory	2	
2	COMPETITIVE MARKET AND ECONOMIC EFFICIENCY		14
	1	Competitive price system	2
		a) Economic efficiency and welfare analysis: consumer surplus and producer surplus approach	
	2	The first fundamental theorem of welfare economics	3
		a) Pareto efficiency and simple general equilibrium model	
	3	Equity and Efficiency	2
	a) Distributional dilemma and second fundamental theorem of welfare economics: exchange with initial endowments		

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	4	Partial and general equilibrium framework	3
		a) Walras' Law: Walras' proof of the existence of general equilibrium price	
	5	Departure from competitive assumptions: Theory of second best	4
		a) Inefficiency and Dead Weight Loss	
3	ANALYSIS OF FACTOR MARKETS		14
	1	Competitive factor markets	2
		a) Demand for factor with one variable input	
		b) Market demand and supply of inputs	
	2	Income and substitution effect of a change in wage rate: Backward bending supply curve for labour	3
		a) Slutsky's equation of labour supply	
	3	Competitive labour market equilibrium	3
		a) Marginal productivity theory and adding up controversy	
		b) Economic rent in the labour market	
	4	Imperfections in the factor market – Monopsony in labour market	2
		a) Pricing in a Monopsony labour market	
	5	Monopoly power in the labour market	4
		a) labour unions and equilibrium with union's goals	
		b) Modelling wage discrimination: Unionized Vs Non-unionized worker	
4	ALTERNATIVE THEOROES OF PRICING AND FIRM		10
	1	Marginalist controversy – Hall and Hitch report and the Full Cost Pricing principle	2
		a) Average cost pricing and mark-up rule	
	2	Barriers to entry: Bain's limit-pricing model	4
		a) Sylos-Labini Model	
		b) Predatory Pricing and entry deterrence	
	3	Theories of the Firm: Firm as an organisational construct	4
		a) Baumol's sales revenue maximization hypothesis	
		b) Williamson's model of managerial discretion	
		c) Marris' model of managerial enterprise	
5	Teacher Specific Module		10
	Directions: <i>Cases from textbooks of Advanced Level Microeconomics</i>		-

	This module would preferably be set as case study-based one with some standard textbooks of Microeconomics as basic reference [To give an open-ended list - (1) Microeconomics by <i>Pindyck, R. S., Rubinfeld, D. L., & Mehtha P L</i> (2) Principles of Microeconomics by <i>Mankiv. G</i> , (3) Microeconomics by <i>Krugman, P & Wells, R.</i>]. Contents would be preferably based on the modules in the current syllabus or any other theme without overlapping contents in Advanced Microeconomics I.	10
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Essential Readings:

1. Pindyck, R. S., Rubinfeld, D. L., & Mehtha P L. *Microeconomics*. Pearson Education. Latest Edition, 437 – 463
2. Nicholson, W., & Snyder, C. M. *Microeconomic Theory: Basic Principles and Extensions*. Cengage Learning. Latest Edition
3. Mankiw. G, Principles of Microeconomics, Cengage-MindTap, Latest Edition
4. Krugman, P & Wells, R. Microeconomics, Worth Publishers, Latest Edition
5. Koutsoyiannis, Modern Microeconomics, Mac Millan, Latest Edition

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1	-
		Essential Reading 2	-
	2	Essential Reading 1	-
		Essential Reading 2	-
	3	Essential Reading 1	-
		Essential Reading 2	-
	4	Essential Reading 1	-
		Essential Reading 2	-
	5	Essential Reading 1	-
		Essential Reading 2	-
	6	Essential Reading 1	-
		Essential Reading 2	-
	7	Essential Reading 1	-
		Essential Reading 2	-
2	1	Essential Reading 1	-
		Essential Reading 2	-
	2	Essential Reading 1	-
		Essential Reading 2	-
	3	Essential Reading 1	-
		Essential Reading 2	-
	4	Essential Reading 2	-
		Essential Reading 1	-
	5	Essential Reading 1	-
		Essential Reading 2	-

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		Essential Reading 2	-
3	1	Essential Reading 1	-
		Essential Reading 2	
	2	Essential Reading 2	-
		Essential Reading 1	
	3	Essential Reading 1	-
		Essential Reading 2	
	4	Essential Reading 1	-
		Essential Reading 2	
	5	Essential Reading 1	-
		Essential Reading 2	
4	1	Essential Reading 5	
	2	Essential Reading 5	
	3	Essential Reading 5	
5	-	Essential Reading 1, 3 and 4	Preferably

Suggested Readings:

1. Salvatore. D, Principles of Microeconomics, Oxford International, Latest Edition
2. Bator, F. (1995). *The anatomy of market failure* (pp. 129-158). Macmillan Education UK.
3. Akerlof, G. A. (1978). The market for “lemons”: Quality uncertainty and the market mechanism. In *Uncertainty in economics* (pp. 235-251). Academic Press.
4. Stiglitz, J. E. (1984). *Theories of wage rigidity* (No. w1442). National Bureau of Economic Research.
5. Lipsey, R. G., & Lancaster, K. (1956). The general theory of second best. *The review of economic studies*, 24(1), 11-32.
6. Blaug, M. (2007). The fundamental theorems of modern welfare economics, historically contemplated. *History of political economy*, 39(2), 185-207.
7. Miller, P. W. (1985). Female labour supply in Australia: Another example of a backward-bending labour supply curve. *Economics Letters*, 19(3), 287-290.
8. Manning, A. (1987). An integration of trade union models in a sequential bargaining framework. *The Economic Journal*, 97(385), 121-139.
9. Manning, A. (2013). *Monopsony in motion: Imperfect competition in labor markets*. Princeton University Press.
10. William J. Baumol, Economic Theory and Operations Analysis, Prentice Hall of India Pvt. Ltd., 2000, Chapter-24.
11. Hall, R. L., & Hitch, C. J. (1939). Price theory and business behaviour.
12. Bain, J. S. (1949). A note on pricing in monopoly and oligopoly. *The American Economic Review*, 448-464.
13. Elzinga, K. G., & Mills, D. E. (2000). Predatory pricing and strategic theory. *Geo. LJ*, 89, 2475.
14. Baron, D. P. (1973). Limit pricing, potential entry, and barriers to entry. *The American Economic Review*, 63(4), 666-674.

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Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report/case study	- 8
Total		100

KU8DSCECO407: ADVANCED MACROECONOMICS II

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC-	400-499	KU8DSCECO407		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	- 0	-0	30	70	100	2

Course Description:

This course delves into advanced macroeconomic theories and their applications in an open economy in the initial module. It covers the IS-LM analysis, foreign exchange market mechanisms, and balance of payments, examining equilibrium, disequilibrium, and related phenomena like depreciation and the J-curve effect. The curriculum explores the theoretical underpinnings of New Classical Economics, Real Business Cycle models, and New Keynesian Economics, including sticky prices, efficiency wages, and the Overlapping Generations Model. Additionally, it provides an in-depth look at theories of money demand and supply, highlighting approaches like the inventory theoretic model and the liquidity preference theory.

Course Prerequisite: NIL

Course Outcomes:

CO No	Expected Outcome	Learning Domains
CO 1	Understand various macroeconomic concepts and theories and comprehend the dynamics of the foreign exchange market, including the determination of exchange rates and the implications of different exchange rate regimes.	Understand (U)
CO 2	Critically analyse the IS-LM framework in an open economy, assessing its implications for monetary and fiscal policy. Evaluate the impacts of depreciation, appreciation, revaluation, and devaluation on an economy, including the J-curve effect.	Analyse (An)
CO 3	Apply macroeconomic models to real-world situations, such as predicting the effects of monetary and fiscal policies in open economies.	Apply (A)

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CO 4	Recall key concepts and models from New Classical Economics, including the policy ineffectiveness proposition and the rational expectations hypothesis.	Remember (R)
CO 5	Assess the effectiveness of different exchange rate regimes and the consequences of pegging a currency versus allowing flexible exchange rates.	Evaluate (E)

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs							
COs	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓		✓		
CO 2	✓	✓	✓				
CO 3	✓		✓	✓			
CO 4		✓			✓		
CO 5	✓	✓	✓			✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	UNIT	DESCRIPTION	HOUR S 60
1	MACRO ECONOMICS IN AN OPEN ECONOMY		12
	1	ISLM Analysis in an open economy	2
	2	Foreign Exchange Market– Determination of Exchange Rates: Fixed Vs Flexible– Pegging of the currency	1
	3	Balance of Payment - Accounts equilibrium, disequilibrium in BOP	1
	4	Depreciation, Appreciation, Revaluation, Devaluation, J-curve Effect	2
	5	BOP in Keynesian Analysis and Marshal-Lerner condition	3
	6	Money and Capital Flows in an Open Economy– Mundell-Fleming Model	3
2	NEW CLASSICAL ECONOMICS AND REAL BUSINESS CYCLE		13

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	1	The New Classical Economics: new classical policy ineffectiveness proposition,	3
	2	The Rational Expectations Concept and Its Implications	2
	3	Output and employment in new classical mode	2
	4	Real Business Cycles: Central Features of Real Business Cycle Model	2
	5	A Simple Real Business Cycle Model	2
	6	Effects of a Positive Technology Shock	2
	NEW KEYNESIAN ECONOMICS AND SUPPLY SIDE ECONOMICS		13
3	1	New Keynesian Economics,	2
	2	Sticky Price (Menu Cost) Models	2
	3	Efficiency Wage theory	1
	4	Insider–Outsider Models and Hysteresis	2
	5	Overlapping Generations Model	2
	6	Diamond model of search and unemployment	2
	7	Supply side economics	2
	THEORIES OF MONEY DEMAND AND SUPPLY		12
4	1	Inventory Theoretic Approach (William Baumol)	3
	2	Liquidity Preference as Behaviour Towards Risk (James Tobin)	2
	3	The Buffer Stock Notion (David Laidler).	2
	4	Behavioural Model of Money Supply	2
	5	Financial innovations, near money and its impact on monetary aggregates	3
	TEACHER SPECIFIC MODULE		10
5	<i>Directions:</i>		
	<i>students may be directed to review various articles related to application of macroeconomics principles and conduct discussion in the classroom</i>		

Essential Readings:

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1. Levacic, R., & Rebmann, A. (1986). *Macroeconomics* (2nd ed.). Macmillan.
2. Froyen, R. T. (Year unavailable). *Macroeconomics: Theories and policies*. Macmillan Publishing Company.
3. Dornbusch, R., Fischer, S., & Startz, R. (Year unavailable). *Macroeconomics*. McGraw-Hill.
4. Williamson, S. D. (2018). *Macroeconomics* (6th ed., Global ed.). Pearson Education.
5. Barro, R. J., & Sala-i-Martin, X. (2004). *Economic growth* (2nd ed.). MIT Press.
6. Mankiw, N. G. (Year unavailable). *Macroeconomics* (5th ed.). Worth Publishers.
7. Backus, D. K., Kehoe, P. J., & Kydland, F. E. (1992). International business cycles: Theory and evidence. *Journal of International Economics*, 33(3–4), 357–374.
[https://doi.org/10.1016/0022-1996\(92\)90006-6](https://doi.org/10.1016/0022-1996(92)90006-6)

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Readings 1	
	2	Essential Readings 1	
	3	Essential Readings 1	
	4	Essential Readings 1	
	5	Essential Readings 1	
	6	Essential Readings 1	
2	1	Essential Readings 2	
	2	Essential Readings 2	
	3	Essential Readings 2	
	4	Essential Readings 2	
	5	Essential Readings 2	
	6	Essential Readings 2	
3	1	Essential Readings 2	
	2	Essential Readings 2	
	3	Essential Readings 2	
	4	Essential Readings 2	
	5	Essential Readings 5	
	6	Essential Readings 4	
	7	Essential Readings 2/3	
4	1	Essential Readings 2	
	2	Essential Readings 2	
	3	Essential Readings 6	
	4	Essential Readings 1	
	5	Essential Readings 2,7	

Suggested Readings:

1. Kahneman, D. (2011). *Thinking, Fast and Slow*. Farrar, Straus and Giroux.
2. Akerlof, G. A., & Shiller, R. J. (2009). *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*. Princeton University Press.
3. Camerer, C., Loewenstein, G., & Rabin, M. (Eds.). (2011). *Advances in Behavioral Economics*. Princeton University Press.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	5
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report/case studies/	8
Total		100

KU8DSCECO408: APPLIED ECONOMETRICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSE	400-499	KU8DSCECO408		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course provides an extensive exploration of advanced econometric techniques, focusing on the use of dummy explanatory variables, time series econometrics, and simultaneous equation models. Students will learn to construct and interpret regression models that incorporate categorical data and interaction effects ANOVA, ANCOVA models, and models for qualitative dependent variables, including linear probability, logit, and probit models. In time series econometrics, students will gain proficiency in understanding time series as stochastic processes, testing for stationarity, and implementing ARIMA models for forecasting. Advanced topics include co-integration analysis, error correction mechanisms, and volatility modeling using ARCH and GARCH models. The course covers an in-depth study of simultaneous equation models, addressing issues like identification and endogeneity, and employing advanced estimation techniques such as 2SLS, 3SLS, and SUR models.

Course Prerequisite:

Economic Theory, Statistics (basic ideas of these disciplines and some elementary mathematics)

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Learn the basic structural form of regression models that include dummy variables and how these models differ from standard linear regression models	R,U
2	Learn how to use Analysis of Variance (ANOVA) models to compare means across multiple groups.	A,C
3	Understand the characteristics of time series data (trends, seasonality, and cyclical patterns)	U A
4	Conduct tests for stationarity, including the Augmented Dickey-Fuller (ADF) test and non-parametric Phillips-Perron (PP) test.	E,C
5	Obtain a basic understanding of the structure of AR, MA, ARMA, ARIMA, VAR, ARCH, GARCH models	U A
6	autocorrelation functions (ACF) and partial autocorrelation functions (PACF) to analyze time series data.	E A

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

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COs	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓	✓				✓
CO 2	✓	✓					
CO 3	✓	✓	✓	✓	✓		
CO 4	✓	✓		✓	✓	✓	
CO 5	✓	✓		✓		✓	
CO 6	✓	✓		✓		✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
		QUALITATIVE RESPONSE MODELS	12
1	1.1	Regression with dummy explanatory variables a) Major applications and basic structural form b) ANOVA and ANCOVA models Interpretation of Slope and Intercept in Dummy Variable Regression a) Interaction Effects b) Dummy variable trap	
	1.2	Models with qualitative dependent variable a) Linear Probability Model –logit and probit models b) Multinomial Logit and Ordered Probit Models c) Truncated and Censored Regressions – Tobit model	
		BASICS OF TIME SERIES ECONOMETRICS	12
2	2.1	Introduction to time series models a) Time series as a stochastic process	
	2.2	Basics of time series regression model a) CLRM assumptions underlying a time series model b) interpretation of OLS estimates	
	2.3	Stationarity and non-stationarity c) Trend Stationarity d) Differencing For Stationarity e) Non-Stationarity and Spurious Regression f) Deterministic and Stochastic Trends	
	2.4	Random walk and unit root Random walk with drift	
	2.5	Testing stationarity a) Correlogram	

		b) ACF and PACF c) Augmented Dicky-Fuller test d) Non-parametric PP test	
3	ADVANCED TIME SERIES ECONOMETRICS		14
	3.1	Co-integration analysis – a) Meaning of co-integration b) Testing co-integration c) Engel-Granger two-step procedure	
	3.2	Error Correction Mechanism a) Vector Error Correction Mechanism (Basic steps and concepts without derivation) b) VAR model – structure and uses.	
	3.3	AR model, MA model, ARMA model, ARIMA model a) basic structure and uses b) significance of lag selection c) Akaike and Bayesian Information criteria	
	3.3	Volatility analysis a) ARCH and GARCH models b) structure and estimation c) Interpretation of ARCH and GARCH terms	
4	SIMULTANEOUS EQUATION MODELS		12
	4.1	simultaneous equation system simultaneous equation bias a) Variables entering to the Simultaneous Equation System b) Structural and reduced form equations	
	4.2	Identification problem a) Under identification b) Just or Exact Identification c) Over Identification d) Rank and order conditions for Identification	
	4.3	Endogeneity Problem a) Test of Endogeneity -Hausman Specification Test	
	4.4	Estimation of simultaneous equation system a) Recursive methods and OLS b) Indirect Least Squares c) 2 SLS and 3 SLS d) Seemingly unrelated regression (SUR) model	
5	TEACHER SPECIFIC MODULE		10
	<i>(The teachers can design a practical module for the topics covered under the previous four modules)</i>		

Essential Readings:

1. Gujarati, D. N., & Sangeetha, N. (2007). *Basic econometrics* (4th ed.). Tata McGraw-Hill.
2. Johnston, J. (1984). *Econometric methods* (3rd ed.). McGraw-Hill International Editions.
3. Maddala, G. S., & Lahiri, K. (1992). *Introduction to econometrics*. Macmillan.

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4. Stock, J. H., & Watson, M. W. (2020). *Introduction to econometrics* (4th ed.). Pearson.
5. Wooldridge, J. M. (2003). *Introductory econometrics: A modern approach* (3rd ed.). South-Western College Publishing.

Reference Distribution:

Module	Reference	Chapters
1	1. Damodar N. Gujarati & Sangeetha, Basic Econometrics	9 and 15
	2. Wooldridge, Jeffrey M. "Introductory Econometrics: A Modern Approach 3rd ed." (1996).	7 and 17
	3. Maddala, G. S., & Lahiri, K. (1992). Introduction to econometrics, New York: Macmillan.	8
	4. J Johnston, Econometric Methods, McGraw-Hill International Editions	6.3
2	1. Wooldridge, Jeffrey M. "Introductory Econometrics: A Modern Approach 3rd ed." (1996).	10, and 11
	2. Stock, J. H., & Watson, M. W. (2020). Introduction to econometrics. Pearson.	14
	3. Maddala, G. S., & Lahiri, K. (1992). Introduction to econometrics, New York: Macmillan.	12
	4. Damodar N. Gujarati & Sangeetha, Basic Econometrics	21
3	1. Wooldridge, Jeffrey M. "Introductory Econometrics: A Modern Approach 3rd ed." (1996).	11, and 12
	2. Stock, J. H., & Watson, M. W. (2020). Introduction to econometrics. Pearson.	16
	3. Maddala, G. S., & Lahiri, K. (1992). Introduction to econometrics, New York: Macmillan.	14
	4. Damodar N. Gujarati & Sangeetha, Basic Econometrics	21 and 22
4	1. Damodar N. Gujarati & Sangeetha, Basic Econometrics	18, 19 and 20
	2. Wooldridge, Jeffrey M. "Introductory Econometrics: A Modern Approach 3rd ed." (1996).	15 and 16
	3. Maddala, G. S., & Lahiri, K. (1992). Introduction to econometrics, New York: Macmillan.	9
	4. J Johnston, Econometric Methods, McGraw-Hill International Editions	11

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6

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b)	Test Paper-2	6
c)	Assignment	8
d)	Seminar	5
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report/Data analysis	-5
Total		100

- **Employability for the Course:** On completion of this students gain strong quantitative and analytical skills, essential for roles such as data analyst, economic analyst, and financial analyst. Proficiency in statistical software and advanced modeling techniques prepares them for technical positions in data science and business strategy. Specialized knowledge in areas like volatility modeling, policy evaluation, and market research makes graduates competitive for roles in financial markets, government agencies, and consulting firms. This course provides a robust foundation for careers in finance, public policy, market analysis, and beyond, meeting the high demand for skilled econometricians in diverse sectors.

KU8DSCECO409: ADVANCEMENTS IN ECONOMIC RESEARCH

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCECO409		4	75
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
3	2	0	35	65	100	1.5

Course Description:

The syllabus outlines a comprehensive exploration of the philosophy of social science, covering topics such as individualism, collective agency, social norms, power, causality, and evolutionary approaches. It progresses into methods of data collection, emphasizing observational and survey techniques, questionnaire design, qualitative research, and secondary data usage, with a focus on the Indian statistical system. The course further delves into data preparation and analysis, including univariate, bivariate, and multivariate methods, and the integration of qualitative and quantitative tools. Finally, it addresses academic writing, guiding students on outlining, presenting quantitative and qualitative results, and interpreting findings.

Course Prerequisite: NIL

Course Outcome

CO No.	Expected Outcome	Learning Domains
1	Students will gain a comprehensive understanding of key philosophical concepts in social science, including individualism, collective agency, social norms, power dynamics, causality, institutions, and evolutionary approaches.	RU
2	Students will become proficient in various data collection methods, such as observational techniques, survey research, and questionnaire construction.	RUA
3	Students will develop skills in data preparation and analysis, including editing, coding, and performing univariate, bivariate, and multivariate analyses. They will understand variable relationships and effectively apply statistical procedures.	A, An

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4	Students will be capable of integrating qualitative and quantitative research tools, enhancing their ability to conduct comprehensive and robust research utilizing diverse data sources and methodologies.	A, An, C
5	Students will learn to develop structured research outlines, present quantitative and qualitative research results clearly, and interpret findings effectively.	A, An,E, C

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs							
COs	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓	✓		✓			
CO 2	✓			✓			
CO 3		✓		✓			
CO 4				✓			
CO 5	✓			✓	✓		

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	PHILOSOPHY OF SOCIAL SCIENCE		15
	1.	Individualism, Collective Agency and The Micro-Macro Relation	3
	2.	Social Minds	1
	3.	Rules, norms and commitments	3
	4.	power and social class in twenty first century	2
	5.	Causality, Casual models and social mechanism	2
	6.	Institutional approach	3
	7.	Evolutionary approach	1
2	DATA COLLECTION		20
	1	Observational Method	4
		a) Type of Observation	
		b) interferences from observation	
	2	Survey Research	4
		a) Personal Interview	
		b) Telephonic interview	
3	Questionnaire construction	4	
	a) Type and format of questions		
	b) sequences of questions		

		c) Bias in questionnaire construction	
	4	Qualitative research	5
		a) Field Survey, Ethnography, Case studies, Focus Group discussion	
		b)Secondary Data-	
		- Role of Secondary data	
		- Searching and sourcing of secondary Data	
		-Problems in using Secondary data source	
	5	Indian Statistical system	3
		a) National Account statistics (NAS), Database on Indian economy RBI(DBIE), Census	
		DATA PREPARATION AND ANALYSIS	17
	1	Editing, coding and cleaning	3
	2	Univariate Analysis	2
	3	Bivariate analysis	4
		a) concept of Relation	
		b) Nominal, Ordinal and Interval Relation	
	4	Multivariate analysis	4
		a) Relationship Variables	
		b) Statistical procedure	
	5	Combining Qualitative and Qualitative Tool	4
		ACADEMIC WRITING	11
	1	Developing Outline	1
	2	Presenting Results in Quantitative Research	4
		a) Bivariate, inferential and multivariate analysis	
	3	Presenting Results in Qualitative Research	3
	4	Presentation and interpretation of findings	3
		TEACHER SPECIFIC MODULE	12
		<i>Directions</i>	
	5	1. Develop Skills in data collection methods, preparation and analysis including conducting survey, using secondary data, editing, coding, and performing univariate, bivariate, and multivariate analyses. 2. Students will learn how to create organized research outlines, present research results clearly using quantitative and qualitative methods, and interpret findings effectively	

Essential Readings:

1. Outhwaite, W., & Turner, S. P. (2007). *The SAGE handbook of social science methodology*. Sage Publications.
2. Somekh, B., & Lewin, C. (2005). *Research methods in the social sciences*. Sage Publications.
3. Adu, P., & Miles, D. A. (2024). *Dissertation research methods: A step-by-step guide to writing up your research in the social sciences*. Routledge.
4. Kumar, R. (1999). *Research methodology: A step-by-step guide for beginners*. Sage Publications.
5. Benton, T., & Craib, I. (2011). *Philosophy of social science: The philosophical foundations of social thought*. Palgrave Macmillan.

6. Frankfort-Nachmias, C., Nachmias, D., & DeWard, J. (2015). *Research methods in social science*. Macmillan.
7. Ellen Perelman & Sara R. Curran (2006), *A handbook for Social Science Field Research*, Sage Publication New Delhi
8. <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home>

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1	
	2	Essential Reading 1	
	3	Essential Reading 1	
	4	Essential Reading 1	
	5	Essential Reading 1	
	6	Essential Reading 1	
	7	Essential Reading 1	
2	1	Essential Reading 6	
	2	Essential Reading 6	
	3	Essential Reading 7&6	
	4	Essential Reading 7&6	
	5	Essential Reading 8	
3	1	Essential Reading 3&4	
	2	Essential Reading 3	
	3	Essential Reading 3	
	4	Essential Reading 3	
	5	Essential Reading 7	
4	1	Essential Reading 4	
	2	Essential Reading 3	
	3	Essential Reading 3	
	4	Essential Reading 3	

Suggested Readings:

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation Theory		50
End Semester Evaluation Practical		15
Continuous Evaluation Theory		25
a)	Test Paper	5
b)	Test Paper	5
c)	Extracting Data from Secondary source	5
d)	Assignment- Term Paper-I	5
e)	Seminar	5
f)	Book/ Article Review	-
g)	Viva-Voce	-
h)	Field Report	-
Continuous Evaluation Practical		
a)	Term Paper-II (Introduction, Brief Review of Literature, Statement of Problem, Data and Methodology, Analysis, interpretation of Results and Conclusion)	10
Total		100

- **Employability for the Course:** Research Assistant, Research Associate, Data Analysis

KU8DSCECO410: BEHAVIORAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCECO410		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

This course delves into the realm of a sophisticated branch of economics, called behavioural economics. It equips students with a comprehensive understanding of the intricacies of behavioural economics as an independent discipline. The course not only provides an introduction to behavioural economics but also delves into advanced theoretical developments within this field. Commencing with a foundational overview, the course proceeds to analyse economic behaviour under conditions of uncertainty, employing various behavioural theories. Subsequently, it delves into the dynamics of choice under bounded rationality conditions in a subsequent module. The concluding section of the course explores emerging themes within the realm of behavioural economics. In essence, this course takes students on a journey to the forefront of theoretical advancements in economics through the lens of behavioural analysis.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Learn different contours of the discipline of behavioural economics and apply them in widening their understanding of economic behaviour	U, A
2	Analyse economic behaviour under uncertainty conditions using behavioural theories	An, E
3	Analyse economic behaviour under the conditions of bounded rationality	An, E

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4	Evaluate the nuances of the emerging themes in the behavioural economics	An, E
5	Widen the theoretical tool box out of the neoclassical framework for analysing economic behaviour under various conditions	An

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

CO s-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓				
CO 2	✓		✓		✓		
CO 3	✓		✓				
CO 4	✓				✓		
CO 5	✓		✓		✓		✓

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO BEHAVIOURAL ECONOMICS		10
	1	Economics and the behavioural economics	3
	2	Placing Behavioural Economics	7
		a) Behavioural economics and the economic man	
		b) Are preferences exogenous and stable?	
	c) Are humans selfish?		
3	The Concept of Nudge		
2	ECONOMIC BEHAVIOUR UNDER UNCERTAINTY		15
	1	Lotteries and expected utility	2
	2	Expected utility paradoxes	3
		a) Allais Paradox	
		b) Ellsberg Paradox	
	3	The prospect theory	2
		a) value function and the reference point	
		b) decision weight function	
4	The concept of mental accounting		3
5	Endowment Effect		
3	CHOICE UNDER BOUNDED RATIONALITY		15
	1	Concept of Bounded rationality	3
	a) Beauty contest game		

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	2	The concept of ‘deliberation cost’ a) infinite regress problem (concept only)	3	
	3	Intuitive judgement and biases a) Heuristics and Representativeness b) Anchoring effect and Framing effect	6	
	4	Social preference behaviour a) The Public goods game	3	
	EMERGING THEMES IN BEHAVIOURAL ECONOMICS		10	
4	1	The economics of happiness Three concepts of wellbeing – emotional happiness, life satisfaction and eudaimonia Altruistic behaviour and happiness happiness index	4	
		2	Culture, identity and economic behaviour Cultural economics	4
			3	Neuroeconomics
		TEACHER SPECIFIC MODULE		10
	5	Directions: <i>Mind Game Illustrations from Misbehaving: The Making of Behavioural Economics by Richard H Thaler</i>		-
This module would preferably be set as illustrative exercise module based on the mind games from <i>Misbehaving: The Making of Behavioural Economics</i> by Richard H Thaler. Contents would be preferably based on the modules in the current syllabus or any other theme which would make learning the course better experiencing and engaging to the learners.		10		

Essential Readings:

6. Ogaki M & Tanaka, S. C. (2017). *Behavioural Economics: Toward a New Economics by Integration with Traditional Economics*. Springer.
7. Thaler, R. H. (2015). *Misbehaving: The making of behavioural economics*. WW Norton & Company.
8. Thaler, R. H. (2016). Behavioural economics: Past, present, and future. *American economic review*, 106(7), 1577-1600.
9. Musikanski. L (2017) Happiness Index Methodology. *Journal of Social Change*. Walden University. Vol. 9. Issue 1. Pp 4 - 31

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1,2	-
	2	Essential Reading 1,2	-
	3	Essential Reading 2,3	-
2	1	Essential Reading 1,2	-
	2	Essential Reading 1.2	-
	3	Essential Reading 1,2	-
	4	Essential Reading 1,2	-
	5	Essential Reading 1,2	-
3	1	Essential Reading 1,2	-
	2	Essential Reading 1,2	-

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	3	Essential Reading 1,2	-
	4	Essential Reading 1,2	-
4	1	Essential Reading 1,4	
	2	Essential Reading 1,2	
	3	Essential Reading 1,2	
5	-	Essential Reading 2	Preferably

Suggested Readings:

15. Nick Wilkinson and Matthias Klaes (2012), An Introduction to Behavioural Economics, 2nd Edition
16. Palgrave Macmillan · Sanjit Dhani, “The Foundations of Behavioural Economic Analysis”, Oxford University Press (2016).
17. M. Altman, Handbook of Contemporary Behavioural Economics: Foundation and Developments (2007), Prentice Hall India

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	
f)	Viva-Voce	-
g)	Field Report/Exercises mind games from <i>Misbehaving: The Making of Behavioural Economics</i> by Richard H Thaler.	- 6
Total		100

KU8DSEECO401- ECONOMICS OF HEALTH AND EDUCATION

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSE	400-499	KU8DSEECO401		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description

The course is divided into four modules. The course intends to familiarize the students with the concept of health economics, health and development, health and investment, micro economics of health services. The Economics of Education course provides an in-depth exploration of the economic principles and theories that underpin the educational sector. Students will examine the allocation of resources, decision-making processes, and policy implications in education, with a focus on understanding the economic factors shaping educational outcomes at various levels. The course integrates economic analysis with educational policy considerations to foster a comprehensive understanding of the challenges and opportunities within the field of education.

COURSE OUTCOMES

Course Learning Outcomes: At the end of the Course, the Student will be able to -

CO No.	Expected Outcome	Learning Domains
CO 1	Outline the dimensions of health and education	R, U
CO 2	Identify the occupational health hazards and its linkages	U, A
CO 3	Analyze economics of public health and education	A, An
CO 4	Measure burden of disease and future challenges and Construct the production function with respect to health.	A, An, E
CO 5	Able to evaluate and analyse existing higher education policies	An, E

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

-Mapping of Course Outcomes to PSOs

COs	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	√				√	√	

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CO2			√			√	
CO3	√	√	√		√	√	
CO4	√	√	√	√	√	√	√
CO5		√	√	√	√	√	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
		HEALTH AND DEVELOPMENT– BASIC CONCEPTS	13
1	1	a) Definition and Dimensions of Health b) Meaning and Importance of Health Economics	3
	2	a) Determinants of Health b) Input and Output Indicators of Health	3
	3	a) Income and Health Linkages b) Concept of Wellbeing PQLI and HDI c) Poverty and Health	3
	4	a) Occupational Health Hazards b) Fertility, Morbidity, Mortality and Life Expectancy c) Nutrition and Health – Mal –Nutrition – Under Nutrition.	4
		HEALTH AS INVESTMENT	13
2	1	a) Economics of public Health b) Education and Health	3
	2	a) Concept of Health Education b) Capital Formation in Health Care	3
	3	a) Demand for health services b) Preference for health care and health cure	3
	4	a) Income and price effects – Physician as a price Discriminating monopolist b) Health production Function with Illustration.	4
		EDUCATION AND ECONOMIC DEVELOPMENT	12
3	1	a) Introduction to Economics of Education b) Human capital theory c) Job competition, Screening, and Signaling hypothesis, Education, earnings and national wellbeing,	4
	2	a) Education and employment b) segmented labour market theories, c) Rate of return to education: cost-benefit analysis, cost-effectiveness	4

		analysis	
	3	a) Education and Economic Development b) Contribution of education to economic growth, c) Denison's growth accounting Contribution of labour d) Endogenous Growth Theories	4
4	EDUCATION AND PUBLIC FINANCE		12
	1	a) Role of State in Financing Education b) Principles of financing education: Equity, Efficiency, Adequacy	3
	2	a) Education and distribution, inequality b) Distribution of public spending on education; Importance of public expenditure on education; its impact on development c) Determinants of expenditure on education – Public Household	3
	3	a) Methods of Financing Education: Sources of funding: Public, Private; Public funding of education: Taxes – General, Earmarked; Grants, Vouchers; Fee as a source of finances; scholar loans	3
	4	a) Mobilisation of Resources for Education Private sector, community contributions; External aid. – b) Role of School Resources -Role of Teachers -Role of Incentives.	3
5	TEACHER SPECIFIC MODULE		10
	Directions: Cases study		-
	This module would preferably be set as case study-based on latest trend in economics of health and education		10

Essentail Readings

1. Harinder Singh (2009), Health, Nutrition and Economic Development, Regal Publication (New Delhi).
2. N.K. Anand and Shikha Goel (2006), Health Economics, AITBS Publishers (India).
3. Holland, Goodman and Stano. 2009. The Economics of Health and Health Care. Pearson Education.
4. Zweifel, P and Breyer, F. 1997. The Health Economics. OUP: Oxford.
5. Turshen. M .1989.The Politics of Health. London: Zed Books Ltd.
6. Monica Das Gupta, Chen. L.C and Krishnan T. N. 1996. Heath, Poverty and Development in India. New Delhi: OUP.
7. Holland, Goodman and Stano. 2009. The Economics of Health and Health Care. Pearson Education.
8. Lee, Kenneth and Anne Mills ed. 1985.The economics of Health in Developing Countries. OUP: Oxford.
9. Baru, R, V. 1998. Private Health Care in India: Social Characteristics and Trends. New Delhi: Sage publications.
10. Zweifel, P and Breyer, F. 1997. The Health Economics. OUP: Oxford.
11. Carnoy, M., ed. (1995) International Encyclopaedia of Economics of Education.

Oxford.

12. Pergamon Johnes, G and Johnes, J., eds. International Handbook on the Economics of Education.
13. Psacharopoulos, G., ed. (1987) Economics of Education. New York: Pergamon.
14. Bowman M.J., et al: eds. Readings in Economics of Education. UNESCO, 1962.
15. Schultz, T.W. (1971) Investment in Human Capital. New York: Free Press Vaizey
16. John (1962): Economics of Education. London: Faber & Faber Eric A. Hanushek (From the Handbook of Economics of Education, Hanushek

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1-4	Essential Reading 1-5	
			-
2	1-4	Essential Reading 610	-
3	1-3	Essential Reading 1113	-
4	1-4	Essential Reading 1416	-

Suggested Readings

1. Alistair McGuire, John Henderson and Gavin Mooney (1988), The Economics of Health Care: An Introductory Text. (Routledge and Kegan Paul London and New York. PP.9-30)
2. AshaA.Bhende and Tara Kanitkar (2001), Principles of Population Studies (Himalaya Publishing House, New Delhi).
3. Government of India (1983), National Health Policy, New Delhi.
4. Indian Council of Social Science, Research and Indian Council of Medical Research (1981), Health for All 2002 A.D. (ICSSR, Delhi).
5. Michall H. Cooper and Antony J. Culyer (1973), Health Economics (Baltimore, Penquin Books Inc).
6. Somkidkaewsonthi and Alan G. Harding (1993), Micro Economic Analysis and Applications in the Health Sector, Students Guide (The Centre for health Economics Faculty of Economics, Chulalonglorn University)
7. William Jack (1999), Principles of Health Economics for Developing Countries, WBI Development Studies (The World Bank, Washington.D.C).
8. Raj Chetty, John N. Friedman, Jonah E. Rockoff, “Great Teaching: Measuring its effects on students’ future earning” http://educationnext.org/files/ednext_20123_Friedman.pdf.
9. W. Steven Barnett, “Benefit-Cost Analysis of the Perry Preschool Program and Its Policy Implications” Educational Evaluation and Policy Analysis, 7 (4), pp. 3
10. Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Vasquez Heilig, J. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for

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America, and teacher effectiveness, Education Policy Analysis Archives, 13(42).

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	-
g)	Field Report/case study report	6-
Total		100

KU8DSEECO402: PROJECT MANAGEMENT

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSE	400-499	KU8DSEECO402		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

The course aims to provide a comprehensive base in approaches to project management by exposing the learners to the fundamental theories and concepts that underpin project management. The course covers major theoretical, technical and managerial aspects of economic projects. The course starts with giving sound conceptual foundations in the discipline of project management. The course moves on to explore the aspects of strategy and resource allocation in project planning. Technical and market demand analysis of economic projects are explored in the subsequent module. Finally, the course also exposes learners to the nuances of financial estimations and projections.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Apply the concepts of projects management for analysing investment decisions in the corporate world.	A, An
2	Analyse the role of strategy in resource allocation and management for better outcomes in the implementation of various projects	An, E
3	Evaluate and measure technical feasibility of economic projects in the modern corporate world	An, E
4	Measure and analyse demand side of economic projects by applying sophisticated demand analysis and forecasting tools.	An, E
5	Analyse financial side of economic projects by applying financial estimation and projection techniques	An, E

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

-Mapping of Course Outcomes to PSOs

COS	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1			✓				
CO 2			✓				
CO 3	✓		✓		✓		
CO 4	✓		✓				
CO 5			✓				

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	CONCEPTUAL FOUNDATIONS OF PROJECT MANAGEMENT		10
	1	Capital investment: concept, importance and difficulties	3
		a) Types of capital investments	
		b) Key issues in investment decisions	
	2	Phases of capital budgeting	2
		a) Objective of capital budgeting	
	3	Levels of decision making	1
4	Facets of project analysis – market, technical, financial, economic and ecological analysis	3	
5	Common weaknesses in capital budgeting	1	
2	STRATEGY AND RESOURCE ALLOCATION		20
	1	Conceptualising strategy – Grand strategy	4
		a) Diversification debate – diversification as mixed bag	
		b) Diversification and value creation	
	2	Tools of Portfolio strategy	4
		a) BCG Matrix	
		b) Stoplight matrix	
		c) McKinsey Matrix	
	3	d) Enhancing effectiveness of portfolio management	3
		Business level strategies	
	a) Cost leadership, differentiation, focus, network effect strategy, sustenance of competitive advantage		

	4	Generation and screening of project ideas	3
		a) Generation of ideas, monitoring business environment, corporate appraisal	
	5	Tools for identifying investment opportunities	4
		a) Porter model of profit potential of industries, Life cycle approach and experience curve	
	6	Scouting for project ideas	1
	7	Project Rating Index	1
	TECHNICAL AND MARKET DEMAND ANALYSIS		
3	1	Market demand analysis	6
		a) Situational analysis and specification of objectives	
		b) Collection of secondary information	
		c) Conduct of market survey	
		d) Characterisation of the market	
		e) Demand forecasting - Bass Diffusion Model, Econometric Method	
	2	Technical analysis - Manufacturing technology	4
		a) Technical arrangements	
		b) Material inputs and utilities	
		c) Product mix, plant capacity and location and site	
		d) Machinery and equipment, structures and civil works and environmental aspects	
	e) Project layout and project implementation		
FINANCIAL ESTIMATES AND PROJECTIONS			10
4	1	Financial estimates	5
		a) Estimates of cost of project	
		b) Means of finance	
		c) Production and sales	
		d) Profitability projections	
	2	Time Value of Money	2
		a) Future Value of a Single Asset and Present Value of a Single Amount	
		b) Future Value of an Annuity and Present Value of an Annuity	
		c) Intra-year Compounding and Discounting	
	3	Investment Criteria	3

	a) Net Present Value, Modified Net Present Value	
	b) Benefit Cost Ratio	
	c) Internal Rate of Return	
	d) Accounting Rate of Return	
	TEACHER SPECIFIC MODULE	10
	Directions: Illustrations in Appendix of Projects: Planning, Analysis, Selection, Financing, Implementation and Review by Prasanna Chandra (Latest Edition)	-
5	<p>This module would preferably be set as work based one using Projects: Planning, Analysis, Selection, Financing, Implementation and Review by Prasanna Chandra (Latest Edition). Contents would be preferably based on the modules in the current syllabus or any other theme which would make learning the course more effective.</p> <ul style="list-style-type: none"> • Visit industrial area inside Kerala maximum for 3 days and prepare reports 	

Essential Readings:

10. Prasanna Chandra. *Projects: Planning, Analysis, Selection, Financing, Implementation and Review*, McGraw Hill Publications, Latest Edition
11. Albert Lester. *Project Management, Planning and Control*, Butterworth-Heinemann, Elsevier, Latest Edition

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1	
	2	Essential Reading 1	
	3	Essential Reading 1	
	4	Essential Reading 1	
	5	Essential Reading 1	
2	1	Essential Reading 1	
	2	Essential Reading 1	
	3	Essential Reading 1	
	4	Essential Reading 1	
	5	Essential Reading 1	
	6	Essential Reading 1	
	7	Essential Reading 1	
3	1	Essential Reading 1	
	2	Essential Reading 1	
4	1	Essential Reading 1	
		Essential Reading 1	
	2	Essential Reading 1	
		Essential Reading 1	
	3	Essential Reading 1	
		Essential Reading 1	

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5	-	Essential Reading 1	Preferably
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Suggested Readings:

18. Joseph Heagney, Fundamentals of Project Management, AMACOM, Latest Edition
19. Robert K Wysocki. Effective Project Management. WILEY, John Wiley and Sons, Inc. Indiana
20. Erik W Larson and Clifford F Gray. Project Management: The Managerial Process. McGraw-Hill Publications. Latest Edition
21. Russ J Martinelli, Dragan Z. Milosevic. Project Management Tool Box. Wiley Publications. Latest Edition
22. Richard Newton. Project Management. Pearson Publications. Latest Edition

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	4
d)	Seminar	4
e)	Book/ Article Review	-
f)	Viva-Voce	-
g)	Field Report	- 10
Total		100

KU8DSEECO403: ECONOMICS OF INNOVATION

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSE	400-499	KU8DSEECO403		4	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:

The primary objective of this course is to provide a comprehensive introduction to the fundamental theories and concepts that underpin the cutting-edge field of the economics of science, technology, and innovation. The course covers major theoretical perspectives on technology and innovation, offering insights into the foundational views of the innovation process. Additionally, it delves into the discourse on innovation diffusion, examining the historical context and its impact on the spread of innovation. The course also incorporates recent discussions on the innovation system approach, providing students with a holistic understanding of the intricate dynamics within the realm of science, technology, and innovation.

Course Prerequisite: NIL

Course Outcomes:

At the end of the course the student will be able to;

CO No.	Expected Outcome	Learning Domains
1	Apply the theoretical concepts of innovation for analysing the effects upon growth and development	A, An
2	Analyse the role of intellectual property rights in addressing the issue of market failure	An, E
3	Evaluate and measure innovation in the light of different indicators of innovation	An, E
4	Measure productivity at the firm, industry and economy level and evaluate its role in the overall growth process of an economy	An, E
5	Analyse innovation process in the light of various theories of innovation and approaches to innovation like innovation systems	An, E

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

-Mapping of Course Outcomes to PSOs							
-	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	✓		✓				
CO 2	✓		✓				

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CO 3	✓	✓	✓				
CO 4	✓	✓			✓		
CO 5	✓				✓	✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS	
1	NATURE AND SIGNIFICANCE OF INNOVATION		12	
	1	Placing ‘Economics of Innovation’ – innovation as key driver of economic growth and prosperity	1	
	2	Conceptualising innovation a) Product and process innovation, institutional and organisational innovation, drastic and incremental innovation, disruptive innovation	3	
	3	Defining ‘knowledge’ and ‘technology’	1	
	4	Stages in the innovation process – innovation, adoption and diffusion	1	
	5	Microeconomic effects of innovation a) Effects of product and process innovations	4	
	6	Role of producer and user of innovation in innovation process	2	
2	INNOVATION, MARKET FAILURE AND INTELLECTUAL PROPERTY RIGHTS		15	
	1	Innovations and market failure a) Is new knowledge a public good? b) Are there externalities from innovative activities?	4	
	2	Solution to market failure by restoring incentives to innovate a) Public provision of a public good – R & D Investments b) Pigouvian subsidy c) Club provision of a local public good d) Definition of property rights	6	
	3	Role of IPR a) Why are IPR awarded? b) classification of IPR – patents, trademarks, designs and utilities and copy rights	5	
	3	MEASUREMENT OF INNOVATION AND PRODUCTIVITY		10
		1	Measurement of innovation	5

	a) Input and output measures	
	b) Innovation surveys	
	c) Innovation index: Global Innovation Index	
2	Measurement of productivity	5
	a) Productivity at the firm, industry and aggregate level – partial productivity and Total Factor Productivity	
3	TFP and growth accounting	
	a) Difficulties in the measurement of Total Factor Productivity	
THEORETICAL DEVELOPMENTS IN INNOVATION PROCESS		13
1	Neoclassical linear model of innovation	2
2	Schumpeter theory of innovation – Mark I and Mark II Model	2
3	Theory of diffusion by Roggers	2
4	Innovation Systems Approach	7
	a) National System of Innovation (NSI) – evolution of the concept, components, role of institutions	
	b) Sectoral System of Innovation (SSI) – concept, actors and institution	
	c) Agricultural Innovation Systems (AIS) – concept, actors and institution	
TEACHER SPECIFIC MODULE		10
Directions: <i>Box Cases from Innovation, Intellectual Property and Economic Growth by Christine Greenhalgh and Mark Rogers</i>		-
5	This module would preferably be set as case study based one using <i>Innovation, Intellectual Property and Economic Growth</i> by Christine Greenhalgh and Mark Rogers. Contents would be preferably based on the modules in the current syllabus or any other theme which would make learning the course a novel experience.	

Essential Readings:

12. Christine Greenhalgh and Mark Rogers, *Innovation, Intellectual Property and Economic Growth*, Princeton University Press, Latest Edition
13. Lundvall, B. Å. (2007). National innovation systems—analytical concept and development tool. *Industry and innovation*, 14(1), 95-119.
14. Lundvall, B. Å., Johnson, B., Andersen, E. S., & Dalum, B. (2002). National systems of production, innovation and competence building. *Research policy*, 31(2), 213-231.
15. Malerba, F. (2002). Sectoral systems of innovation and production. *Research policy*, 31(2), 247-264.
16. Hall, A., Mytelka, L., & Oyeyinka, B. (2005). Innovation systems: Implications for agricultural policy and practice.
17. Ziemnowicz, C. (1942). Joseph A. Schumpeter and innovation. *Socialism and Democracy*, 2(1), 2-4.

18. Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432-448). Routledge.
19. Kline, S. J., & Rosenberg, N. (2010). An overview of innovation. *Studies on science and the innovation process: Selected works of Nathan Rosenberg*, 173-203.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1	
	2	Essential Reading 1	
	3	Essential Reading 1	
	4	Essential Reading 1	
	5	Essential Reading 1	
	6	Essential Reading 1	
2	1	Essential Reading 1	
	2	Essential Reading 1	
	3	Essential Reading 1	
3	1	Essential Reading 1	
	2	Essential Reading 1	
	3	Essential Reading 1	
4	1	Essential Reading 8	
	2	Essential Reading 6	
	3	Essential Reading 7	
	4	Essential Reading 2, 3, 4 & 5	
5	-	Essential Reading 1	Preferably

Suggested Readings:

23. Edquist, C. (2013). *Systems of innovation: technologies, institutions and organizations*. Routledge.
24. Edquist, C. (2001). *Systems for Innovation for Development (SID)*. Tema, University
25. Lundvall, B. Å. (2016). National innovation systems and globalization. *The learning economy and the economics of hope*, 351.
26. Johnson, B., Edquist, C., & Lundvall, B. Å. (2003, November). Economic development and the national system of innovation approach. In *first Globelics conference* (pp. 3-6).

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	4
d)	Seminar	4
e)	Book/ Article Review	-
f)	Viva-Voce	-
g)	Field Report/ Case study	- 10
Total		100

KU8RPHECO401: PROJECT (IN HONOURS PROGRAMME)

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	RPH	400-499	KU8RPHECO401		8	240
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
0	- 16	-0	60	140	200	-----

KU8RPHECO402: RESEARCH PROJECT (IN HONOURS WITH RESEARCH PROGRAMME)

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	RPH	400-499	KU8RPHECO402		12	360
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
0	24	-0	90	210	300	-

.1. PROJECT IN HONOURS PROGRAMME

- a) In Honours programme, the student has the option to do a Project of 8-credits instead of two Core Courses in Major in semester 8.
- b) The Project can be done in the same institution or any other higher educational institution (HEI) or research centres.
- c) A faculty member of the respective institution, where the student does the Project, should be the supervisor of the Project.

2. PROJECT IN HONOURS WITH RESEARCH PROGRAMME

- a) Students who secure 75% marks and above (equivalently, CGPA 7.5 and above) cumulatively in the first six semesters are eligible to get selected to Honours with Research stream in the fourth year.
- b) In Honours with Research programme, the student has to do a mandatory Research Project of 12-credits in semester 8.
- c) The approved research centres of Kannur University can offer the Honours with Research programme. The departments in the affiliated colleges under Kannur University which are not the approved research centres of the University, should get prior approval from the University to offer the Honours with Research programme. Such departments should have minimum one faculty member with Ph.D., and they should also have the necessary infrastructure to offer Honours with Research programme.
- d) A faculty member of the University/ College with a Ph.D. degree can supervise the research project of the students who have enrolled for Honours with Research. One such faculty member can supervise maximum four students in Honours with Research stream.

A. GUIDELINES FOR THE PROJECT IN HONOURS PROGRAMME AND HONOURS WITH RESEARCH PROGRAMME

1. Project can be done in topics related to Economics.
2. Project should be done individually.
3. Project work can be of experimental/ theoretical/ analytical in nature.
4. There should be minimum 240 hrs. of engagement from the student in the Project work in Honours programme.
5. There should be minimum 360 hrs. of engagement from the student in the Project work in Honours with Research programme.
6. The various steps in project works are the following:
 - Wide review of a topic.
 - Investigation on a problem in systematic way using appropriate techniques.
 - Systematic recording of the work.
 - Reporting the results with interpretation in a standard documented form.
 - Presenting the results before the examiners.

7. A hard copy of the report should be kept for reference at the department. A soft copy of the report should be submitted in pdf format for external evaluation well in advance.
8. It is desirable, but not mandatory, to publish the results of the Project in a peer reviewed journal.
9. The project report shall have declaration from the student and certificate from the research supervisor for originality of the work, stating that the work has not been submitted for the award of any other degree/ diploma in the same institution or any other institution.
10. Plagiarism check report has to be incorporated in the project report after the declaration of the student.
11. The project proposal, institution at which the project is being carried out, and the project supervisor should be prior-approved by the Department Council of the college where the student has enrolled for the UG (Honours) programme.
12. Structure of the Project
 - Cover Page and Front Page
 - a) Title of the project
 - b) Degree for which project is submitted.
 - c) Name of the Candidate & University Register Number
 - d) Name of the College
 - e) Month and year of the project report submission
 - Contents
 - a) Declaration by the student
 - b) Plagiarism check certificate
 - c) Certificate of the supervising teacher countersigned by the head of the department.
 - d) Acknowledgement.
 - e) Table of Contents
 - f) List of Tables
 - g) List of Figures
 - h) Introductory Chapter
 - i) Analysis Chapters
 - j) Concluding Chapter
 - k) Bibliography

- l) Appendix
- Contents of the Introductory Chapter
 - a) Introduction
 - b) Review of literature
 - c) Research Gap
 - d) Statement of the problem
 - e) Significance of the study
 - f) Scope of the study
 - g) Statement of objectives
 - h) Hypotheses (optional)
 - i) Methodology
 - Data sources
 - Tools of analysis (quantitative and qualitative)
 - Conceptual Framework-Optional (specification of terms and concepts)
 - j) Limitations of the study
 - k) Chapter outlines.
- Style of Report
 - a) Report Length: 50 to 70 pages excluding Appendix and Certificates
 - b) Alignment: Justify
 - c) Font: Times New Roman
 - d) Font size: 12
 - e) Line spacing: 1.5
 - f) Bibliography: APA style

B. . EVALUATION OF PROJECT

- a) The evaluation of Project will be conducted at the end of the eighth semester by both internal and external modes.
- b) The Project in Honours programme will be evaluated for 200 marks. Out of this, 60 marks is from internal evaluation and 140 marks, from external evaluation.
- c) The Project in Honours with Research programme will be evaluated for 300 marks. Out of this, 90 marks is from internal evaluation and 210 marks, from external evaluation.
- d) The internal evaluation of the Project work shall be done through continuous assessment mode by a committee internally constituted by the Department Council of the college

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where the student has enrolled for the UG (Honours) programme. 30% of the weightage shall be given through this mode.

- e) The remaining 70% shall be awarded by the external examiner appointed by the University.
- f) The scheme of continuous evaluation and the end-semester viva-voce of the Project shall be as given below:

COMPONENTS OF EVALUATION OF PROJECT

Components of Evaluation of Project	Marks for the Research Project (Honours with Research)	Marks for the Optional Project (Honours)	Weightage
	12 Credits	8 Credits	
1. Continuous evaluation of project work through interim presentations and reports by the committee internally constituted by the Department Council	90	60	30%
2. End-semester viva-voce examination to be conducted by the external examiner appointed by the University	150	100	50%
3. Evaluation of the day-to-day records and project report submitted for the end-semester viva-voce examination conducted by the external examiner	60	40	20%
Total Marks	300	200	

INTERNAL EVALUATION OF PROJECT

Sl. No	Components of Evaluation of Project	Marks for the Research Project (Honours with Research programme) 12 credits	Marks for the Optional Project (Honours programme) 8 credits
1	Skill in doing project work	30	20
2	Interim Presentation and Viva-Voce	20	15
3	Punctuality and continuity of the work	20	15
4	Scheme/ Organization of Project Report	20	10

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Total Marks	90	60	
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EXTERNAL EVALUATION OF PROJECT			
Sl. No	Components of Evaluation of Project	Marks for the Research Project (Honours with Research programme) 12 credits	Marks for the Optional Project (Honours programme) 8 credits
1	Content and relevance of the Project, Methodology, Quality of analysis, and Innovations of Research	50	40
2	Presentation of the Project	50	30
3	Project Report (typed copy) and References	60	40
4	Viva-Voce	50	30
	Total Marks	210	140