

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

SEMESTER	COURSE CODE	COURSE NAME	MARKS					CREDITS	
			CCA		ESE		TOTAL		
			P	L	P	L			
I	KU1DSCDEC101	Introductory Microeconomics	0	30	0	70	100	4	4
	KU1DSCDEC102	Economic Journalism	0	30	0	70	100	4	4
	KU1DSCDEC103	Economics of Tourism & Development	0	30	0	70	100	4	4
II	KU2DSCDEC104	Introductory Macroeconomics	0	30	0	70	100	4	4
	KU2DSCDEC105	Indian Financial System	0	30	0	70	100	4	4
	KU2DSCDEC106	Personal Finance	0	30	0	70	100	4	4
III	KU3DSCDEC201	Intermediate Microeconomics	0	30	0	70	100	4	4
	KU3DSCDEC202	Economics for Environment & Development	0	30	0	70	100	4	4
	KU3DSCDEC203	Introductory Managerial Economics	0	30	0	70	100	4	4
	KU3DSCDEC204	Economics of Care and Ageing	0	30	0	70	100	4	4
IV	KU4DSCDEC205	Intermediate Macroeconomics	0	30	0	70	100	4	4
	KU4DSCDEC206	Public Finance	0	30	0	70	100	4	4
	KU4DSCDEC207	Mathematical Tools for Economic Analysis	0	30	0	70	100	4	4
V	KU5DSCDEC301	Development Experience of Indian Economy	0	30	0	70	100	4	4
	KU5DSCDEC302	Statistics for Economic Analysis	0	30	0	70	100	4	4
	KU5DSCDEC303	Heterodox Economics	0	30	0	70	100	4	4
VI	KU6DSCDEC304	Theoretical Foundations of Development Economics	0	30	0	70	100	4	4
	KU6DSCDEC305	International Trade Theories and Policies	0	30	0	70	100	4	4
	KU6DSCDEC306	Introductory Econometrics	0	30	0	70	100	4	4
VII	KU7DSCDEC401	Advanced Microeconomics I	0	30	0	70	100	4	4
	KU7DSCDEC402	Advanced Macroeconomics I	0	30	0	70	100	4	4
	KU7DSCDEC403	Quantitative Techniques for Economic Analysis	0	30	0	70	100	4	4
	KU7DSCDEC404	Readings in Political Economy	0	30	0	70	100	4	4
	KU7DSCDEC405	Financial Economics	0	30	0	70	100	4	4
	KU8DSCDEC406	Advanced Microeconomics II	0	30	0	70	100	4	4

VIII	KU8DSCDEC407	Advanced Macroeconomics II	0	30	0	70	100	4	4
	KU8DSCDEC408	Applied Econometrics	0	30	0	70	100	4	4
	KU8DSCDEC409	Public Policy and Development	0	30	0	70	100	4	4
	KU8DSCDEC410	Advancements in Economic Research	10	25	15	50	100	4	5
Internship in Major Discipline/Research Project in Major Discipline									
V	KU5INTDEC301	Internship (Credit for internship to be awarded only at the end of Semester 6)	15	0	35	0	50	2	4
VIII	KU8RPHDEC401	Project (in Honours Programme)	60	0	140	0	200	8	16
VIII	KU8RPHDEC402	Research Project (in Honours with Research Programme)	90	0	210	0	300	12	24

**FOUR-YEAR UNDERGRADUATE PROGRAMME IN DEVELOPMENT ECONOMICS LIST OF DISCIPLINE SPECIFIC ELECTIVE COURSES
DETAILS OF COURSES OFFERED**

SEMESTER	COURSE CODE	COURSE NAME	MARKS					TOTAL	CREDITS	
			CCA		ESE					
			P	L	P	L				
V	KU5DSEDEC301	Contours of Economic Ideas	0	30	0	70	100	4	4	
	KU5DSEDEC302	Economic Geography	0	30	0	70	100	4	4	
	KU5DSEDEC303	Agricultural Economics	0	30	0	70	100	4	4	
	KU5DSEDEC304	Industrial Economics	0	30	0	70	100	4	4	
	KU5DSEDEC305	Mathematical Economics I	0	30	0	70	100	4	4	
	KU5DSEDEC306	Contemporary Readings on Development Economics	0	30	0	70	100	4	4	
VI	KU6DSEDEC307	Intellectual Property Rights	0	30	0	70	100	4	4	
	KU6DSEDEC308	Business Economics	0	30	0	70	100	4	4	
	KU6DSEDEC309	Green Economics & Environmental Auditing	0	30	0	70	100	4	4	
	KU6DSEDEC310	Mathematical Economics II	0	30	0	70	100	4	4	
	KU6DSEDEC311	Development Issues in Kerala	0	30	0	70	100	4	4	
VIII	KU8DSEDEC401	Project management	0	30	0	70	100	4	4	
	KU8DSEDEC402	Economics of Innovation	0	30	0	70	100	4	4	
	KU8DSEDEC403	Behavioral Economics	0	30	0	70	100	4	4	
LISTS OF MDC/ SEC/ VAC IN DEVELOPMENT ECONOMICS										

MULTIDISCIPLINARY COURSES									
I	KU1MDCDEC101	Economics in Daily Life	0	25	0	50	75	3	3
I	KU1MDCDEC102	Economics for Competitive Examination	0	25	0	50	75	3	3
II	KU2MDCDEC103	Issues in Indian Economic Development	0	25	0	50	75	3	3
II	KU2MDCDEC104	Economics of Startup and Entrepreneurship	0	25	0	50	75	3	3
VALUE ADDED COURSES									
III	KU3VACDEC201	Environmental Sensitisation and Disaster Management	30	0	0	50	75	3	3
III	KU3VACDEC202	Academic Writing in Social Science	0	25	0	50	75	3	3
IV	KU4VACDEC203	Economics of Crime and Corruption	0	25	0	50	75	3	3
IV	KU4VACDEC204	Ethics in Academic Writing	0	25	0	50	75	3	3
SKILL ENHANCEMENT COURSES									
IV	KU4SECDEC201	Data Analysis with Spreadsheet	30	0	45	0	75	3	6
IV	KU4SECDEC202	Hospital Economics	10	15	15	35	75	3	4
V	KU5SECDEC301	Experiencing Indian Stock Market-	10	15	15	35	75	3	4
V	KU5SECDEC302	Logistic and Supply Chain Management	10	15	15	35	75	3	4
V	KU5SECDEC303	Reading Economic Survey and Union Budget	10	15	15	35	75	3	4
VI	KU6SECDEC304	Goods and Service Tax	10	15	15	35	75	3	4
VI	KU6SECDEC305	Finance and Technology	10	15	15	35	75	3	4
VI	KU6SECDEC306	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				
SI 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				
SI 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
7	Internship		2	50
	Total	23/25	25	575

VI SEMESTER				
SI 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
	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
7	Internship		2	50
	Total	23/25	25	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
	Total	21/25	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	
ELECTIVES: Three elective courses are compulsory for Honours and Honours with Research Programmes. For Honours with research Programme one must be KU8RPHECO402 Research Project (in Honours with Research Programme).					
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
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.					
	Total		12	12	300

KU5DSCDEC301: DEVELOPMENT EXPERIENCE OF INDIAN ECONOMY

Semester	Course Type	Course Level	Course Code	Credits	Total Hours	
V	DSC	300-399	KU5DSCDEC301	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 concise overview of the Indian economy, covering its historical evolution, major sectors, key policy reforms, and development challenges. It examines growth trends, social development issues, and contemporary economic prospects in a rapidly globalizing environment.

Course Prerequisite: Basic Economics concepts

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Analyze the historical evolution, structural composition, and key reforms of the Indian economy, including the impact of the 1991 liberalization.	An
2	Evaluate sectoral performance in agriculture, industry, and services by interpreting growth trends, policy initiatives, and contemporary challenges..	E
3	Apply economic concepts to assess the effectiveness of monetary, fiscal, and trade policies in shaping India’s development outcomes.	A
4	Examine and interpret social development indicators and inclusive growth programmes to understand their implications for poverty reduction and human development.	U,An
5	Formulate evidence-based perspectives on current economic issues and future prospects, including digital and green economy opportunities, global integration, and reform priorities.	C,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	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	HOUR S
1	INTRODUCTION TO INDIAN ECONOMY		12
	1	Overview of the Indian economy: Historical perspective, key features, and structural composition	3
	2	Economic reforms in 1991 and their impact on the economy	3
	3	Economic Growth and Development	6
		a) Factors influencing economic growth: demographic dividend, technological advancements, global integration b) Growth trends: GDP growth rates, sectoral contributions (agriculture, industry, services).	
2	SECTORAL DEVELOPMENT & POLICIES OF ECONOMIC DEVELOPMENT		15
	1	Agriculture sector:	3
		a) Green Revolution	
		b) Agricultural policies	
		c) Agriculture sector challenges (e.g., sustainability, farmer distress).	
	2	Industrial sector,.	3
		a) Industrial policy reforms	
		b) Privatization	
		c) Role of public sector enterprises	
	3	Service sector: Growth drivers (IT, finance, healthcare), employment generation.	3
	4	Economic Policies and Institutions:	6
		a) Monetary policy: Role of RBI, inflation targeting, interest rate management.	
b) Fiscal policy: Budgetary process, taxation policies, fiscal deficit management-			
	c) Trade policy: Liberalization, globalization impacts, trade agreements		
3	SOCIAL DIMENSIONS OF ECONOMIC DEVELOPMENT		12

	1	Poverty alleviation programs: Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), poverty trends.	3
	2	Human development indicators: Education, healthcare, gender equality.	3
	3	Inclusive growth initiatives: Financial inclusion, social security schemes.	3
	4	Infrastructure development: Transport, energy, communication-Urbanization trends: Smart cities mission, challenges of urban growth.	3
	CHALLENGES, CONTEMPORARY ISSUES, AND FUTURE PROSPECTS		11
4	1	Economic challenges.	5
		a) Income inequality Unemployment.	
		b) Informal sector issues	
		c) Contemporary issues: COVID-19 pandemic impact, reforms agenda.	
2	2	Prospects: Emerging sectors (e.g., digital economy, green economy), innovation	6
		a) Global economic integration: Foreign direct investment (FDI), export-import trends	
		b) Bilateral and multilateral trade agreements: Impact on Indian economy.	
	TEACHER SPECIFIC MODULE		10
	<i>Directions</i>		
5	1 Comparative analysis of pre- and post-1991 data on GDP, employment, and trade.		
	2 Group debate: "Did the 1991 reforms achieve inclusive growth?" <ul style="list-style-type: none"> Comparative group presentations on the performance and challenges of each sector. Data analysis exercise: Students interpret time-series data to identify sectoral trends and policy impacts <ul style="list-style-type: none"> Case study: Analyze a recent RBI Monetary Policy decision and its implications. Role-play: Students simulate budget planning from the perspective of key ministries. Critical review of NSSO or NITI Aayog data on poverty trends Group discussion or policy brief: "Is MGNREGS enough to tackle rural distress?" <ul style="list-style-type: none"> Case study analysis: Success and limitations of the Smart Cities Mission in a specific Indian city Student debate: "Urbanization is widening the rural–urban divide more than it is solving infrastructure gaps." Research assignment: Students analyze data to track unemployment trends. 		

	<ul style="list-style-type: none"> • Seminar: “Evaluating India’s post-COVID economic recovery : Winners and losers.” • Case analysis: India’s trade performance under a specific bilateral or multilateral agreement • Group project: Forecasting sectoral growth in digital or green economy over the next decade 	
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Essential Reading

1. Singh, R. (2019). *Indian Economy* (11th ed.). McGraw Hill Education (India).
2. Ghate, C. (Ed.). (2012). *The Oxford Handbook of the Indian Economy*. Oxford University Press.
3. Kapila, U. (Ed.). (2007). *India’s Economic Development Since 1947: Economic Reforms and Growth* (5th ed.). Academic Foundation.

4. Gardner, B. L., & Rausser, G. C. (Eds.). (2001). *Handbook of Agricultural Economics* (Vols. 1A–1B). Elsevier.
5. Bauer, P. T. (2013). *Indian economic policy and development* (Routledge Library Editions: Development). Abingdon, Oxon: Routledge.
6. Nayyar, G. (2014). *The Service Sector in India’s Development*. Cambridge University Press.
7. Datt, G., & Mahajan, A. (2016). *Indian Economy* (72nd ed.). New Delhi: S. Chand & Company Pvt. Ltd.
8. Ahluwalia, I. J. (Ed.). (2009). *Applied Public Policy: Essays on Indian Experience*. Publisher.

9. Parikh, K. S., & Radhakrishna, R. (Eds.). (2022). *India Development Report (IDR 2022)*. New Delhi: Oxford University Press.
10. Majumder, R. (2005). India’s development experience: A regional analysis. In S. K. Thorat (Ed.), *Industrialization, economic reforms and regional development: Essays in honour of Professor Ashok Mathur* (pp. [page range]). Shipra Publications.

11. Ahluwalia, I. J., & Little, I. M. D. (Eds.). (1990). *India’s economic reforms and development: Essays for Manmohan Singh*. Oxford University Press.
12. Institute of Applied Manpower Research. (2023). *India development report*. Ministry of Statistics and Programme Implementation, Government of India.
13. Das, G. (2019). *India unbound: The social and economic revolution from independence to the global information age*. Penguin Books India.
14. Kapila, U. (Ed.). (2021). *Indian economy since independence* (32nd ed.). Academic Foundation.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1	Essential Reading 1 -3	-
	2		-
	3		-
2	1	Essential Reading 4-8	-

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	2		-
	3		-
	4		-
3	1	Essential Readings 9 -10	-
	2		-
	3		-
	4		-
4	1	Essential Reading 11-14	-
	2		-

Suggested Readings:

1. Panagariya, A. (2008). *India: The emerging giant*. Oxford University Press.
2. Ghate, C. (Ed.). (2016). *The Oxford handbook of the Indian economy*. Oxford University Press.
3. Kapila, U. (2024). *Indian economy: Performance and policies* (25th ed., 2024–25). Academic Foundation.

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	3
f)	Viva-Voce	
g)	Field Report	5
Total		100

KU5DSCDEC302: STATISTICS FOR ECONOMIC ANALYSIS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSC	300 - 399	KU5DSCDEC302		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 descriptive and inferential statistics, correlation, regression, index numbers and time series analysis with a focus on applications in economics.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Understand key concepts in statistics, including types of data, variables, levels of measurement, and the role and limitations of statistics.	U
2	Summarize and describe data using frequency distributions, diagrams, measures of central tendency, dispersion, Lorenz curve, and Gini coefficient.	A,An
3	Analyze relationships between variables using correlation and regression techniques, including simple and multiple regression functions with examples from economics.	, An
4	Construct and interpret various types of index numbers (Laspeyres, Paasche, Fisher, CPI, WPI, IIP), including base shifting and splicing.	A,E
5	Analyze time series data, identify its components, and apply trend and seasonal variation methods for economic analysis.	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	✓	✓	✓			✓	
CO 5	✓	✓	✓			✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
		INTRODUCTION TO STATISTICS	10
1	1	Meaning and definition of statistics- Descriptive and inferential statistics- Role and functions of statistics- Limitations of statistics.	3
		Quantitative variable- Continuous and discrete variables- Qualitative variable- Nominal, ordinal, interval and ratio levels of measurement	2
	2	Data and types - Primary and secondary data Merits and demerits- Techniques of primary data collection- Sources of secondary data.	3
		Population- sample- Sample size- Census vs sample surveys- Need for sampling	2
		SUMMARISING AND DESCRIBING DATA	15
2	1	Frequency distribution -Construction frequency distribution- Relative frequency distribution - Cumulative frequency distribution - Constructing discrete and continuous frequency distribution.	3
	2	Graphic and diagrammatic presentation of data - Bar diagram, Pareto chart, pie chart, histogram, frequency polygon and ogives.	4
	3	Meaning and definition of central tendency/average- Requisites for an ideal measure of central tendency- Properties and computation of arithmetic mean, median and mode- Geometric and harmonic mean- Partition values: Quartiles, deciles and percentiles.	4
	4	Meaning and definition of dispersion-Characteristics of an ideal measure of dispersion- Computation of absolute and relative measures of range, quartile deviation, mean deviation and standard deviation- Lorenz curve and Gini coefficient.	4
		CORRELATION AND REGRESSION	15
3	1	Meaning and types of correlation - Measures of correlation (Graphical, Karl Pearson's and Rank correlation coefficient)- Properties of correlation coefficient-	5
		Computation of Correlation coefficient using examples from economics.	3

	2	Meaning and types of regression- Simple regression function and multiple regression function	4
	3	Estimating simple regression function using examples from economics (Consumption function, saving function, production function etc.). Relationship between correlation and regression.	3
	INDEX NUMBERS AND TIME SERIES		10
4	1	Meaning and types of index numbers-Uses of index number- Problems in the construction of index number	4
	2	Laspeyres, 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).	3
	3	Meaning and definition of time series- Components of a time series- Approaches to time series analysis- Methods of estimating trend and seasonal variation.	3
	TEACHER SPECIFIC MODULE		10
5	<i>Directions: Works based on analytical questions at the end of the modules from any of the essential reading suggested in the syllabus.</i>		
	The module would be preferably set by giving emphasise to exercises correlation and regression using current economic data 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.
5. Gupta, S. C., & Kapoor, V. K. (2020). *Fundamentals of mathematical statistics*. Sultan Chand & Sons.
6. G.S. Monga. (2002). Mathematics and Statistics for Economics. Vikas Publishing House Pvt Ltd.

Reference Distribution:

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

4	1	Essential Readings 5,6	
	2	Essential Readings 5, 6	
	3	Essential Readings 4,5,6	

Suggested Readings:

1. Aczel, A. D., & Sounder Pandian, 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. Spigel, 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	5
d)	Seminar	5
e)	Book/ Article Review	-
f)	Viva-Voce	4
g)	Field Report	4
Total		100

KU5DSCDEC303: HETERODOX ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSC	300-399	KU5DSCDEC303		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)*

Mapping of Course Outcomes to PSOs

FYUGP DEVELOPMENT ECONOMICS

	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
	1	Indian Heterodox Economics: History and Growth-	2
4	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>		
5	<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:

- 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.
- Dequech, David (2012) Post-Keynesianism, Heterodoxy and Mainstream Economics, *Review of Political Economy*, April, 2012, Vol.24, No.2, pp. 353-368
- Lawson, Tony (2006) The Nature of Heterodox Economics, in *Cambridge Journal of Economics*, Vol30. No.2, pp.483-507.
- Lawson, Tony (2004) A Conception of ontology, Mimeo. University of Cambridge. Available at http://www.csog.group.cam.ac.uk/A_Conception_of_Ontology.pdf
- Estey, James Arthur (1936) Orthodox Economic Theory: A Defence, *The Journal of Political Economy*, XLIV (6) pp. 791-802, Diciembre de
- Lee, F. (2009). A History of Heterodox Economics: Challenging the Mainstream in the Twentieth Century. Routledge.
- 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
- Albelda, R (2016). Alternatives to Economic Orthodoxy: Reader in Political Economy: Routledge.
- Lawson, Tony (1997) Economics and Reality. London: Routledge
- Goldstein Jonathan P and Michael G Hillard (2009) Heterodox macroeconomics: Keynes, Marx and Globalisation, Routledge. Ch 4 Methodology and Heterodox Economics, pp 54-65
- 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
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

KU5DSEDEC301: CONTOURS OF ECONOMIC IDEAS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEDEC301		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)*

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
		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 –Classicism	
		a) The ‘Marginalist revolution’: an overview-classicism versus neo-classicism.	3
	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 - Böhm-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 -Thorstein 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	Jagdish 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>	

	<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: PrepareTaxonomy(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 reading1,2	
	2	Essential reading 1,2	
	3	Essential reading 1,2	
	4	Essential reading1,3,4	
	5	Essential reading1,3,4	
	6	Essential reading 3,10	
2	1	Essential reading 1 ,2	

	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

KU5DSEDEC302: ECONOMIC GEOGRAPHY

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEDEC302		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	✓			✓			✓
CO 4	✓	✓			✓		

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)	
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.	
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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)	-
	• "The Economic Risks of Climate Change" by The World Bank (2021 report) (https://www.worldbank.org/en/topic/climatechange/overview)	-
	• "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	
	• "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

KU5DSEDEC303: AGRICULTURAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEDEC303		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
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

**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	H O U R 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			
f) Fei-Ranis model of agricultural development			
2	AGRICULTURAL PRODUCTION ECONOMICS		16
	1	Production Function in Agriculture	6
		a) Law of Diminishing Returns	
	2	Supply and Demand Behaviour	6
		a) Determinants of supply and demand behaviour	
		b) Cob-Web Theorem	
	3	Decision making in an Environment of Risk and uncertainty in Agriculture	4
		a) Sources of risk and measures to manage farm risk	
		a) Types of uncertainty in agriculture	
		b) Strategies for Dealing with Risk and Uncertainty	
3	AGRICULTURAL DEVELOPMENT IN INDIA		10
	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 a) Agrarian and credit institutions b) Contract and corporate farming c) Agro-Processing and Value Addition	3
	3	The New Economic policy and Indian Agriculture a) WTO agreements on Indian agriculture a) Trade liberalisation and Agricultural Exports	3
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		
5	TEACHER SPECIFIC MODULE		10
	<i>This module may focus on to</i> <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. 		

Essential Readings and Reference Distribution:

M O D U L E	U N I T	Reference No.
	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., Neelakantha 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	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	• Puri, V.K., & Misra, S.K. (2013). <i>Indian Economy-Its Development Experience</i> . Himalaya Publishing House. Latest Edition Second Green Revolution “Growth Engine for Transformation”.
	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.		
4	1	• Freddie L. Barnard., John Foltz., Elizabeth A. Yeager & Brady Brewer (2021) <i>Agribusiness Management</i> . Sixth Edition, Routledge Taylor & Francis Group, New York.

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

KU5DSEDEC304: INDUSTRIAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEDEC304		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 a comprehensive introduction to the field of industrial economics, focusing on the structure, behavior, and performance of industries. You'll explore the historical context of industrial development, analyze factors affecting firm location decisions, and examine government policies that shape the industrial landscape. The course also delves into the Indian context, exploring industrial growth trends, government initiatives, and challenges faced by the sector.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Explain the nature, scope, and evolution of industrial economics, including the historical industrial revolution and the digital revolution.	, U
2	Classify and examine different types of industries and interpret key concepts such as plant, firm, and industry in real-world industrial structures.	An,U, U
3	Analyze major theories of industrial location (Weber, Sargant Florence) and evaluate the factors influencing industrial concentration, localization, and efficiency.	An.E
4	Assess industrial policies, licensing frameworks, competition regulations (MRTP), and issues like industrial sickness, mergers, and productivity to evaluate their effectiveness in the industrial sector.	E
5	Evaluate and propose strategies for industrial growth in India by examining trends in FDI, SEZs, Make in India, MSME development, regional backwardness, and national manufacturing policies	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	INTRODUCTION TO INDUSTRIAL ECONOMICS		11
	1	Nature and scope of Industrial Economics	2
	2	History of Industrial Revolution	3
	3	Digital Revolution	1
	4	Classification of Industries: Public Sector, Private Sector and Public Private Partnerships- Large, MSMEs, Cottage Industries	4
	5	Concept of Plant, Firm and Industry	1
2	THEORIES OF LOCATION		14
	1	Theories of Industrial Location - Weber - Sargant Florence	4
	2	Factors Affecting Location	2
	3	Localization - Glocalization of Industries – Decentralization of Industries-	2
	4	Industrial Efficiency and Economic Efficiency	2
	5	Measures of Concentration - Concentration ratio - Hirschman - Herfindahl Index	4
3	INDUSTRIAL LICENSING AND POLICIES		15
	1	Industrial Licensing	1
	2	M RTP Act	1
	3	Industrial Policies	3
	4	Industrial Productivity - Capacity Utilization	2
	5	Industrial Sickness	2
	6	Mergers and Acquisitions	1
	7	Profitability and Efficiency	1
	8	Industrial Clusters in India	2
	9	Sunrise Sector	1
10	Regional Backwardness- Government Initiatives.	1	
4	INDUSTRIAL GROWTH TRENDS IN INDIA		10
	1	Industrial Growth in India: Trends and Prospects	2
	2	Incentives to Promote Industrialization	1
	3	Ease of Doing Business Ranking	1
	4	MNCs in India	1
	5	Special Economic Zones	1
	6	FDI Policy regulation and investor protection	2

	7	Make in India Initiative	1
	8	National Manufacturing Policy	1
	TEACHER SPECIFIC MODULE		10
5	<p>This module includes interactive sessions that facilitate deep learning and critical thinking among students through the following ways</p> <ul style="list-style-type: none"> ➤ Provide real-world examples of public, private, PPPs, MSMEs, and cottage industries. Use case studies to illustrate their roles in the economy ➤ Discuss real-life examples of industrial locations and the factors influencing them ➤ Conduct exercises on calculating and interpreting concentration ratios and the Hirschman-Herfindahl Index. ➤ Highlight the development and importance of industrial clusters, using examples like Bengaluru (IT), Pune (Automobiles), and others. ➤ Provide a critical overview of initiatives like Make in India and the National Manufacturing Policy, highlighting successes and areas for improvement. 		

Essential Readings:

1. Barthwal, R. R. (2007). *Industrial Economics: An Introductory Textbook*. New Age International.
2. Desai, V. (2011). *Industrial Economy of India*. Himalaya Publishing House.
3. McCann, P. (2013). *Modern Urban and Regional Economics*. Oxford University Press.
4. Ranjana Seth . (2010) *Industrial Economics Ane’s Student Edition*.
5. Kapila, U. (2018). *Indian Economy since Independence*. Academic Foundation.
6. Ahluwalia, I. J. (1985). *Industrial Growth in India: Stagnation since the Mid-Sixties*. Oxford University Press.
7. Panagariya, A. (2008). *India: The Emerging Giant*. Oxford University Press.
8. Dhingra I.C and NitinDhingra (2013) *Industrial Economics Book Age Publications*

Reference Distribution:

Module	Reference	Remarks
1	Barthwal, R. R. (2007). <i>Industrial Economics: An Introductory Textbook</i> . New Age International.	
	Desai, V. (2011). <i>Industrial Economy of India</i> . Himalaya Publishing House.	
2	McCann, P. (2013). <i>Modern Urban and Regional Economics</i> . Oxford University Press.	
	Ranjana Seth . (2010) <i>Industrial Economics Ane’s Student Edition</i> .	
	Barthwal, R. R. (2007). <i>Industrial Economics: An Introductory Textbook</i> . New Age International.	
3	Kapila, U. (2018). <i>Indian Economy since Independence</i> . Academic Foundation.	
	Ahluwalia, I. J. (1985). <i>Industrial Growth in India: Stagnation since the Mid-Sixties</i> . Oxford University Press	
4	Panagariya, A. (2008). <i>India: The Emerging Giant</i> . Oxford University Press.	
	Ranjana Seth . (2010) <i>Industrial Economics Ane’s Student Edition</i> .	
	Dhingra I.C and NitinDhingra (2013) <i>Industrial Economics Book Age Publications</i>	

Assessment Rubrics:

Evaluation Type	Marks
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FYUGP DEVELOPMENT ECONOMICS

End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment	6
d)	Seminar	4
e)	Book/ Article Review	3
f)	Viva-Voce	
g)	Primary data collection-data interpretation- Hirschman-Herfindahl Index	5
Total		100

KU5DSEDEC305: MATHEMATICAL ECONOMICS I

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEDEC305		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:

Mathematical Economics is an advanced undergraduate course provides the students with the understanding and application of various mathematical tools in the field of economic theory .The curriculum enhanced the understanding of economic theory through the integration of essential mathematical tools. The course develops the ability to use calculus, linear algebra and matrix operations in economic contexts. The course enhances the problem solving skills and the ability to interpret economic phenomena quantitatively.

Course Prerequisite:

NIL Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Understand the role and scope of mathematics in economics, including variables, parameters, functions, and limitations of mathematical models.	U
2	Apply mathematical techniques to analyze consumer behavior, utility maximization, demand functions, and the Slutsky equation.	A
3	Apply mathematical methods to analyze production, cost, and revenue functions, including producer equilibrium and empirical production functions.	,A,An
4	Analyze price and output determination under various market structures, including perfect competition, monopoly, and multi-product monopoly..	,An,E
5	Solve mathematical problems in economics using optimization techniques, derivatives, and equilibrium conditions to support decision-making.	C ,A

**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	✓	✓	✓		✓	✓	
CO5	✓	✓	✓	✓	✓	✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO MATHEMATICAL ECONOMICS		8
	1	Meaning and Scope of Mathematical Economics	1
	2	Role of Mathematics in Economics	1
	3	Mathematical tools used in economic analysis	1
	4	Limitations of Mathematical Economics	1
	5	Ingredients of Mathematical Model - (Variables, Parameters, Constants and Coefficients, Equations and Identities)	2
	6	Law of demand –Elasticity of demand- price elasticity, income elasticity and cross elasticity	2
2	THEORY OF CONSUMER BEHAVIOUR		15
	1	Utility function- cardinal and ordinal utility approaches	1
	2	Consumer equilibrium - Indifference curve and Budget line approach	2
	3	Constraint Utility Maximisation (First and Second order conditions)	3
	4	Mathematical derivation ordinary and compensated demand functions	3
	5	Price effect, Income effect and substitution effect	2
	6	Derivation of Slutsky equation- cases of normal, inferior and giffen goods	4
3	THEORY OF PRODUCER BEHAVIOUR		15
	1	Production function- Homogeneous and non homogeneous	1
	2	Total product, Average product and marginal product	1
	3	Producer equilibrium- isoquant-isocost line approach	3
	4	Constraint output maximisation and cost minimisation	3
	5	Empirically derived production functions- Cobb Douglas Production Function, CES Function	4
	6	Revenue Function -Total Revenue, Average Revenue and Marginal Revenue	1
	7	Relationship between AR, MR and elasticity of demand	1
	8	Cost Function- Total Cost, Average Cost and Marginal Cost	1
PRICE AND OUTPUT DETERMINATION UNDER DIFFERENT MARKET		12	

4	1	Equilibrium of firm under Perfect Competition -Profit maximisation conditions	2
	2	Monopoly- Profit maximisation (First and Second order conditions)	2
	3	Discriminating Monopoly - Price and output determination - Necessary and Sufficient conditions	2
	4	Price and output determination under Multiplant Monopoly-Mathematical conditions	3
	5	Profit Maximisation under Multi Product Monopoly- (First and Second order conditions)	3
TEACHER SPECIFIC MODULE			10
5	a) Problem Sets: Regularly assigned homework that involves solving mathematical problems b) Discussion Groups: Engaging in discussions on how mathematical economics can be applied to current economic issues c) Case Studies: Analysing real world economic issues using mathematical models to understand the practical applications of theoretical concepts d) Assignment and Peer Review: Assignments are given to the students on different topics ask them to reviewing the peer's assignments to enhance collaborative learning		

Essential Readings:

1. Chiang A.C. and K. Wainwright (2013) Fundamental Methods of Mathematical Economics, Tata McGraw-Hill Education; Fourth edition
2. Salvatore Dominick (2004) : Micro Economic Theory, 3rd Edition Schaum's Outline Series, McGraw-Hill, New York
3. Henderson, James M and Quandt, R E (1980): Microeconomic Theory: A Mathematical Approach, McGraw Hill Book Company
4. Dowling E.T (2003) Introduction to Mathematical Economics, 2nd Edition, Schaum's Outline Series, McGraw-Hill, New York.
5. Varian H R (2014): Intermediate Microeconomics with Calculus: A Modern Approach, W W Norton &Company
6. Koutsoyiannis A (2015): Modern Microeconomics, Macmillan Press TD

Reference Distribution:

Module	Reference	Remarks
1	Essential Readings 1,3	
2	Essential Readings 2, 3,4,5,6	
3	Essential Readings 2,3,4,5,6	
4	Essential Readings 2,3,5,6	

Suggested Readings:

1. Heathfield D.F and Wibe, Soren (1987): "An Introduction to Cost and

- Production Functions" Macmillan.
2. Allen, R.G.D. (1974) Mathematical Analysis for Economists, Macmillan Press, London.
 3. Chiang, A.C. (1986) Fundamental Methods of Mathematical Economics (3rd Edition), McGraw Hill, New Delhi.
 4. Colell, A.Mas et.al (1991) Microeconomic Theory, Harvard University Press.
 5. Hands, D.W. (1991) Introductory Mathematical Economics, D.C. Heath.
 6. Handy, S.T. (1997) Operations Research, PHI, New Delhi.
 7. Mukherji, B. and V. Pandit (1982) Mathematical Method of Economic Analysis Allied Publishers, New Delhi.

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	3
g)	Field Report	5
Total		100

KU5DSEECO306: CONTEMPORARY READINGS ON DEVELOPMENT ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	DSE	300-399	KU5DSEDEC306		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 a comprehensive overview of key economic concepts related to growth, development, and social justice. Students will examine theories and models of economic development, analyze poverty and inequality, evaluate the role of capital and technology, understand population dynamics, and explore economic planning policies. Through case studies and real-world examples, students will develop critical thinking skills and apply economic principles to address complex societal issues.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	.Explain key concepts of growth, development, social justice, population dynamics, and capital formation.	U
2	Apply development theories to real-world problems in developing economies..	A
3	Analyze poverty, undernutrition, farmers’ distress, migration, brain drain, and economic indicators such as HPI, MPI, and ICOR.	An
4	Evaluate government policies, planning approaches, and development strategies.	E
5	Design evidence-based policy recommendations integrating theories of population, technology, capital formation, and planning.	C

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

Mapping of Course Outcomes to PSOs							
CO \ PSO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	✓		✓			✓	✓
CO2	✓		✓		✓	✓	

CO3	✓	✓	✓		✓	✓	
CO4	✓	✓	✓		✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	H O U R S
1	GROWTH , DEVELOPMENT AND SOCIAL JUSTICE		11
	1	Poverty, inequality and Unemployment- Kuznets Inverted -U-Hypothesis	3
	2	Measurement of poverty- HPI-Multi Dimensional poverty-Levels of poverty in Developing countries	3
	3	Under nutrition	1
	4	Issue of Farmers’ suicides	1
	5	Policies for reducing poverty and income inequality	3
2	POPULATION AND DEVELOPMENT		13
	1	Effect of population on development	1
	2	Malthusian theory-	2
	3	Demographic transition theory.	2
	4	Optimum theory of population	2
	5	Urbanisation –Rural- Urban Migration-	2
	6	Harris –Todaro Model	2
	7	Brain drain	2
3	ROLE OF CAPITAL AND TECHNOLOGY IN DEVELOPMENT		12
	1	Capital and Development- stages and sources of capital formation	3
	2	Importance of ICOR	2
	3	Role of technology in development	2
	4	Choice of techniques- capital saving and labour saving techniques	3
	5	Role of Intermediate technology	2

4	PLANNING AND DEVELOPMENT		14
	1	Meaning of development planning- Rationale of economic planning	2
	2	Types of Planning	
		a) Short term, Medium term & Long term planning;	2
		b) Planning by direction and Planning by inducement	1
		c) Centralized & Decentralized planning;	1
		d) Totalitarian & Democratic planning- Rolling & Fixed planning.	2
	4	Economic Controls in a planned economy meaning, need, and types of economic control.	2
5	TEACHER SPECIFIC MODULE		10
	<ul style="list-style-type: none"> ● Analysis of countries that have experienced changes in poverty and inequality, focusing on the Kuznets hypothesis. ● Simulate urban-rural migration decisions using the Harris-Todaro model. ● Discuss various stages and sources of capital formation with real-world historical examples of different types of planning. ● Decentralized planning experience in Kerala – SHGs- Examples of Bangladesh and Kerala – Contributions of Grameen Banks –Kudumba Sree in the development process ./visit local indigenous people inhabited area-one day 		

Essential Readings:

9. **Todaro, M. P., & Smith, S. C.** (2020). *Economic development* (13th ed.). Pearson.
10. **Ray, D.** (1998). *Development economics*. Oxford University Press..
11. **Thirlwall, A. P.** (2011). *Economics of development: Theory and evidence* (9th ed.). Palgrave Macmillan..
12. **Kapila, U.** (2020). *Indian economy: Performance and policies* (20th ed.). Academic Foundation.
13. **Misra, S. K., & Puri, V. K.** (2022). *Economics of development and planning* (41st rev. ed.). Himalaya Publishing House.

Reference Distribution:

Module	Reference	Remarks
1	Thirlwall, A. P. (2011). <i>Economics of development: Theory and evidence</i> (9th ed.). Palgrave Macmillan	
	Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson.	
	Misra, S. K., & Puri, V. K. (2022). <i>Economics of development and planning</i> (41st rev. ed.). Himalaya Publishing House.	
2	Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson.	

	Misra, S. K., & Puri, V. K. (2022). Economics of development and planning (41st rev. ed.). Himalaya Publishing House.	
	Ray, D. (1998). Development economics. Oxford University Press..	
3	Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson.	
	Ray, D. (1998). Development economics. Oxford University Press..	
	Misra, S. K., & Puri, V. K. (2022). Economics of development and planning (41st rev. ed.). Himalaya Publishing House.	
4	Todaro, M. P., & Smith, S. C. (2020). <i>Economic development</i> (13th ed.). Pearson.	
	Ray, D. (1998). Development economics. Oxford University Press..	
	Kapila, U. (2020). <i>Indian economy: Performance and policies</i> (20th ed.). Academic Foundation	

Suggested Readings:

1. Agarwal, R.C, Economics of Development and Planning –Theory and Practice, Lakshmi Narain Agarwal Educational Publishers, Agra
2. Benjamin Higgins, Economic Development, Universal Book Stall, NewDelhi.
3. Meier G.M., Leading Issues in Economic Development, Oxford University Press, NewDelhi.

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/Visit report	8
Total		100

KU5SECDEC301: EXPERIENCING INDIAN STOCK MARKET

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	SEC	300-399	KU5SECDEC301		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	

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
	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

3		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 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	8
4	TRADING MECHANISM AND PRACTICAL APPLICATION		10
	1	Depositories, NSDL, CDSL-Clearing and settlement process -	3
	2	Construction of Stock market indices-- SP BSE index, CNX Nifty index	4
	3	- Market analysis software tools- NSE--Simulated trading sessions--Real world analysis (classes by industry and stock market experts)	3
5	TEACHER SPECIFIC MODULE		10
	Directions		
		<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	1		
	2	Essential Reading 1, 2	
2	1	Essential Reading 1, 2, 3	
	2		
3	1	Essential Reading 1,2,3	
	2		
4	1-3	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
Total		75

KU5SECDEC302: LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	SEC	300-399	KU5SECDEC302		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	✓ <input type="checkbox"/>		✓ <input type="checkbox"/>				
CO 2	✓ <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"/>			

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		
4	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	1-2	Essential Reading 1, 2	
2	1-2	Essential Reading 1, 2, 3	
3	1-2	Essential Reading 5, 6	
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
End Semester Evaluation-Total		50
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

KU5SECDEC303:READING ECONOMIC SURVEY AND UNION BUDGET

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	SEC	300-399	KU5SECDEC303		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
1	UNION BUDGET -BASIC CONCEPTS		18
	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 and indirect taxes	
		d) Actual, revised and budget estimates	
		e) Fiscal devolution and center-state financial relations	
2	THE INDIAN ECONOMIC SURVEY		14
	1	Analysis of current report	
		a) State of the economy b) Specific sectors – Agriculture, Industry, Service External Sector etc.	
3	THE UNION BUDGET		12
	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.	
4	KERALA ECONOMIC REVIEW		6
	1	a) Recent Trends in Macro-Economic Aggregates, State Finances	2
		b) Initiatives for social inclusion	2
	c) Kerala Infrastructure Investment Fund Board (KIIFB)	2	
5	TEACHER SPECIFIC MODULE		10
		<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. -	

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	
	2	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

KU5INTDEC301: INTERNSHIP

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
V	INTERNSHIP	300-399	KU5INTDEC301		2	60
Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
0	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	10
	d)viva-voce examination	5
Total		50

Semester	Course Type	Course Level	Course Code			Credits	Total Hours
VI	DSC	300-399	KU6DSCDEC304			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.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Explain the concepts of economic growth and economic development and differentiate between traditional and modern perspectives.	U,An
2	Analyze key determinants and indicators of development—including HDI, MPI, GHI, and sustainability indices—to assess development gaps across countries..	An,E
3	Compare and evaluate major development theories such as Rostow, Lewis, Nurkse, and endogenous growth models to interpret their relevance to contemporary economic issues..	An,E
4	Apply neoclassical and endogenous growth models (Harrod-Domar, Solow, Romer, AK model, etc.) to explain the sources and dynamics of long-term economic growth.	A,, U
5	Evaluate and formulate appropriate fiscal, monetary, trade, and sectoral policies that can enhance sustainable economic development in developing economies.	E, C

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

Mapping of Course Outcomes to PSOs

FYUGP DEVELOPMENT ECONOMICS

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	H O U R S
1	INTRODUCTION TO GROWTH AND DEVELOPMENT		14
	1	a) Meaning of Economic Growth and Economic Development: Traditional and Modern view	2
		b) Distinction between Growth and Development, Determinants of Growth and Development	
	2	Key elements of economic development	4
		a) Population Growth- Humans' Acquired Knowledge and Capabilities	
		b) The Role of Finance in Economic Development	
		c) Institutions and Sustainable Development, Formal Government Institutions	
	3	Measurement of Growth and Development	
		a) Physical Quality Life Index (PQLI), Human Development Index (HDI)	2
		b) Human Poverty Index (HPI) ,Multidimensional Poverty Index (MPI)	1
	c) Gender related Development Index - Gender Empowerment Measures	1	

	d) Global Hunger Index - Global Happiness Index , Green Index, Sustainable Development Index (SDI)	2
	e) Core values of development (Denis Goulet), Amrithya Sen’s capability approach. Development gap.	2
	THEORIES OF DEVELOPMENT	12
2	1 Rostow’s stage theory, Balanced and Unbalanced growth theories	3
	2 Big push theory, Critical minimum effort theory	3
	3 Theories of Arthur Lewis, Nurkse ,Vakil and Brahmananda	3
	4 Network Theory and Growth (Matthew Jackson).	3
	GROWTH MODELS	15
3	1 Harrod-Domar Model	2
	2 Solow-Swan Neoclassical Growth Model	2
	3 Ramsey-Cass-Koopmans Model	2
	4 AK Model (Endogenous Growth Model)	2
	5 Romer Model, Lucas Model	2
	6 Schumpeterian Growth Model	1
	7 Learning-by-Doing Model	1
	8 Endogenous Growth Model with Human Capital, AK Model (Rebelo Model)	3
	POLICIES FOR DEVELOPMENT	9
4	1 Role of monetary and Fiscal policies in economic development	3
	2 Inward and outward oriented foreign trade policies and its impact on development	2
	3 Role of industrial and agricultural policies on development	2
	4 Role of foreign aid and foreign capital on economic development	2
	TEACHER SPECIFIC MODULE	10
5	Direction <ul style="list-style-type: none"> ● Meaning and Distinction Between Growth and Development:Real-world examples to illustrate the concepts. ● Case studies on countries with high growth and development rates. 	

	<ul style="list-style-type: none"> ● Analyze recent monetary and fiscal policies in various countries and their impacts on economic development. ● Examination of successful industrial and agricultural policies in countries like South Korea and Taiwan. ● The role and impact of foreign aid and foreign capital on developing economies. 	
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Essential Readings:

1. Hendrik Van Den Berg (2016) - Economic growth and development,3rd edition. Worldscientific publishing Co.
2. Todaro, M. P., & Smith, S. C. (2020). Economic development (13th ed.). Pearson Education.Debraj Ray, Development Economics. Oxford University Press, NewDelhi.
3. Thirlwall, A. P. (2019). Economic growth and development: With special reference to developing economies (10th ed.). Palgrave Macmillan..
4. Ray, D. (1998). Development economics. Oxford University Press.
5. Misra, S. K., & Puri, V. K. (2021). *Economics of development and planning: Theory and practice* (42nd ed.). Himalaya Publishing House.

Reference Distribution:

Module	Reference	Remarks
1	<ul style="list-style-type: none"> • Thirlwall, A. P. (2019). Economic growth and development: With special reference to developing economies (10th ed.). Palgrave Macmillan. 	
	<ul style="list-style-type: none"> • Todaro, M. P., & Smith, S. C. (2020). Economic development (13th ed.). Pearson Education. 	
2	<ul style="list-style-type: none"> • Todaro, M. P., & Smith, S. C. (2020). Economic development (13th ed.). Pearson Education. 	
	<ul style="list-style-type: none"> • Hendrik Van Den Berg (2016) - Economic growth and development,3rd edition. World scientific publishing Co. 	
	<ul style="list-style-type: none"> • Ray, D. (1998). Development economics. Oxford University Press. 	
3	<ul style="list-style-type: none"> • Todaro, M. P., & Smith, S. C. (2020). Economic development (13th ed.). Pearson Education. 	
	<ul style="list-style-type: none"> • Ray, D. (1998). Development economics. Oxford University Press. 	
4	<ul style="list-style-type: none"> • Todaro, M. P., & Smith, S. C. (2020). Economic development (13th ed.). Pearson Education. 	
	<ul style="list-style-type: none"> • Kapila, U. (2023). Indian economy: Performance and policies (20th ed.). Academic Foundation. 	

Suggested Readings:

1. Agarwal, R. C. (Year unavailable). Economics of development and planning: Theory and practice. Lakshmi Narain Agarwal Educational Publishers.
2. Higgins, B. (1959). Economic development: Problems, principles, and policies. Universal Book Stall
3. . Meier, G. M. (1995). Leading issues in economic development (7th ed.). Oxford University Press..
4. Jackson, Matthew O. (2008). Social and Economic Networks. 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	6
d)	Seminar	6
e)	Book/ Article Review	-
f)	Viva-Voce	-3
g)	Field Report-	- 3
Total		100

KU6DSCDEC305: INTERNATIONAL TRADE THEORIES AND POLICIES

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	Core	300-399	KU6DSCDEC305		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 examination of international trade theories and their application to India's foreign trade policies. Students will analyze classical and modern trade theories, explore the evolution of India's trade policies, and assess their impact on the country's economy. Topics include comparative advantage, trade barriers, regional integration, trade liberalization, and India's trade relations with key partners.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Understand international trade theories and apply them to analyse real world trade patterns	U, R
2	Analyse India's foreign trade policies and assess their impact on the Indian economy and its integration into the global market.	An,
3	Students will analyse the causes and consequences of India's trade imbalances and explore the potential remedial measures	An, A
4	Assess regional and bilateral trade agreements and analyze their implications on India's trade.	U, An
5	Investigate the role of international trade in India's economic development and evaluate policy options for maximising trade benefits.	U, 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
		INTRODUCTION TO INTERNATIONAL TRADE	12
1	1	Definition of International Economics	3
		a) International trade and its importance b) International trade as an engine of growth	
	2	Classical Trade Theories	4
		a) Mercantilism and Absolute Cost Advantage theory b) Comparative advantage and the gains from trade	
		c) Opportunity cost theory	
	3	Modern Theories of trade	5
a) Heckscher Ohlin Theorem- Leontieff Paradox b) Factor price Equalisation theorem			
		TERMS OF TRADE AND COMMERCIAL POLICY	10
2	1	Terms of trade and its importance	3
		a) Classification of TOT	
	2	Commercial Policy	1
		a) Free trade vs Protection	
3	Methods of trade restrictions	6	
	a) Tariffs- Types, effects of tariff b) Non-tariff barriers- Quotas, Export Subsidies, VER, International Cartels, Dumping, Technical and administrative measures		
		FOREIGN EXCHANGE AND BOP	16
3	1	Foreign exchange market and its structures.	2
	2	The foreign exchange rate	4
		a) Fixed exchange rate vs Flexible exchange rate b) Managed floating exchange rate	
		c) Exchange rate regime in India	
	3	Theories of exchange rate determination	4
		a) The Mint Parity theory b) Purchasing Power Parity theory, c) Demand and supply analysis	
	4	Balance of Trade and Balance of Payments –	6
a) Meaning and definition			

	b) Structure of BOP- Current account and Capital account-	
	c) Balance of payment equilibrium and disequilibrium,	
	d) Causes of disequilibrium – corrective measures- automatic and deliberate measures	
	INDIA'S FOREIGN TRADE POLICY	12
4	1 Evolution and Objectives of India's trade policy	2
	2 Historical overview of India's trade policy	1
	3 Role of trade policy in India's economic reforms	1
	4 Trade Liberalization- Rationale for trade liberalization	2
	5 Trade agreements and regional integration	6
	a) SAFTA, b) ASEAN	1
	6 Contemporary Issues in India's Foreign Trade	1
	a) Trade imbalances and current account deficits	1
	b) Trade policy responses to global economic crises	1
	c) Emerging issues such as digital trade and sustainability	2
	d) Trade-led vs. export-led growth strategies	1
	e) Challenges and opportunities for India in the global trading system	
	TEACHER SPECIFIC MODULE	10
5	a) <i>Case studies on India's trade policy analysing specific sectors like agriculture, manufacturing and services can be incorporated.</i>	
	b) <i>Case studies on successful trade led development strategies in India and other countries can be included.</i>	

Essential Readings:

- Sodersten, B., & Reed, G. (1980). International Economics, St. Martin's Press, New York.
- Salvatore, D(2009) International Economics , OUP
- Obstfeld, M., & Krugman, P. R. (2003). International Economics: Theory and Policy. Addison-Wesley/Pearson. 23
- Feenstra, R. C., & Taylor, A. M. (2010). Essentials of International Economics. Macmillan.
- Appleyard, D. R., Field Jr, A. J., Cobb, S. L., & Lima, A. F. (2010). International Economics, McGraw Hill.
- "India's Foreign Trade Policy and Performance" by Nagesh Kumar
- R.C.Bhargava (1994), Trade Policy of India: A Review, Ashish Publishing House, 1994
- Jagdish Bhagwati and Arvind Panagariya (2012), Reforming the Indian Economy, Oxford University Press
- Amita Batra(2013) , India's Trade Policy in the 21st Century, Routledge
- S.Narayan and Amitendu Palit(2020) India's Trade Policy and Economic Relations with Global Partners, World Scientific Publishing, 2020.
- G.Parthasarathy, Trade Policy and Developing Countries: A Case Study of India, Academic Foundation, 2003
- B. Sudhakara Reddy and S.K.Majumdar (2019), Economic Reforms in India and China: Emerging issues and Challenges, Springer.

Reference Distribution:

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

Suggested Readings:

1. Miltiades Chacholiades(2012) International Economics, McGraw-Hill
2. Sodersten, B., & Reed, G. (1980). International Economics, St. Martin's Press, New York.
3. Henry Thompson (2010) International Economics, Global Markets and Competition, Cambridge University Press India Pvt Ltd
4. Thomas Pugel (2010) International Economics, McGraw-Hill
5. Vaish, M. C., & Singh, S(1990) International Economics, Oxford, IBH
6. "The Theory of International Trade" by James E. Anderson

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	
e)	Book/ Article Review	5
f)	Viva-Voce	
g)	Field Report/Data analysis/trade – China&India	8
Total		100

KU6DSCDEC306: INTRODUCTORY ECONOMETRICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSC	300-399	KU6DSCDEC306		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
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
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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	✓	✓		✓		✓	
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	2
		a) BLU Estimators – The Gauss–Markov Theorem	
		b) Standard Errors of Estimates	
	6	The Coefficient of Determination (R^2)	2
	7	Interval Estimation and Hypothesis Testing	2
		Confidence Intervals	
		a) Significance Tests and p-values b) Concepts of the Individual and Overall significance	
8	Interpreting Regression Coefficients	1	
3	FUNCTIONAL FORMS OF REGRESSION MODELS		13
	1	Selecting the Appropriate Functional Form	6
		a) Log-Linear (Double Log) Models	
		b) Log-Lin (Growth) Models	
		c) Lin-Log Models	
		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	5	
	a) Error Normality test		
	b) Tests for Linearity c) Model Adequacy tests		
4	MULTIPLE LINEAR REGRESSION MODELS AND VIOLATIONS OF CLRM		14
	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	3
		a) Perfect vs. Imperfect Multicollinearity b) Consequences, Detection, and Remedies	
	.4	Autocorrelation	3
		a) Pure vs. Impure Autocorrelation b) Consequences, Detection, and Remedies	
5	Heteroscedasticity	3	
	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.

KU6DSEDECO307: INTELLECTUAL PROPERTY RIGHTS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSE	300-399	KU6DSEDECO307		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:

Demystify the concept of intellectual property (IP) and its various forms, including patents, copyrights, trademarks, and trade secrets. Explore the rationale behind IPRs and their role in fostering innovation and creativity. Gain insights into the legal requirements for obtaining and enforcing IP rights. Analyze the balance between protecting creators' rights and promoting public access to knowledge.

Course Prerequisite: Basics of Economics

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Gaining a solid understanding of the core concepts of intellectual property, the different types (patents, copyrights, trademarks, etc.), and the rationale behind protecting them.	U
2	Being able to recognize protectable elements in creations and innovations, and understanding the processes involved in securing intellectual property rights.	U,E
3	Developing the ability to apply your knowledge to real-world scenarios.	A
4	Learning how to manage intellectual property as a strategic asset, including exploring ways to extract value from it.	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 IPR		12
	1	Concept and Nature of IPR	2
		a) Meaning of Property and Intellectual Property b) Origin and Historical Development of Intellectual Property Rights (IPR) c) Nature, Scope, and Importance of IPR	
	2	Types of IPR	4
		a) Copyright b) Patent c) Trademark d) Trade Secret & Trade Dress e) Design & Layout Design f) Geographical Indication g) Traditional Knowledge	
	3	Economic and Policy Rationale	3
		a) Economic Rationale for IPR b) Need for Private Rights vs. Public Interests c) Advantages and Disadvantages of IPR	
	4	International IPR Regime	3
		a) Introduction to TRIPS Agreement b) Role of WTO in IPR c) Criticisms and Challenges of Global IPR Enforcement	
2	PATENT AND COPY RIGHTS		15
	1	Introduction to Patents	3
		a) Origin and Evolution of Patents b) Meaning and Purpose of Patents c) Types of Patents d) Inventions Not Patentable Under Law	
	2	Patent Procedures and Legal Framework	5
		a) Patent Registration Procedure b) Rights and Duties of a Patentee c) Assignment and Licensing of Patents d) Restoration of Lapsed Patents e) Surrender and Revocation of Patents f) Patent Infringement: Concept and Liability g) Legal Remedies and Penalties for Infringement	
	3	Introduction to Copyrights	3
		a) Origin and Historical Development of Copyright b) Definition & Nature of Copyright c) Types of Copyright d) Copyright Registration Procedure	
	4	Copyright Use, Abuse, and Enforcement	4
	a) Assignment & Licensing of Copyright		

	b) Term/duration of Copyright c) Piracy & Infringement d) Remedies against Infringement e) Copyrights with special reference to Software	
3	TRADEMARKS	13
	1 Introduction to Trademarks	4
	a) Origin and historical development of Trademarks b) Meaning and nature of Trademarks c) Types of Trademarks	
	2 Registration and Legal Framework	3
	a) Trademark registration procedure b) Rights conferred by a Trademark c) Trademark Infringement and Legal remedies	
	3 Offences and Enforcement	3
	a) Offences related to Trademarks b) Concept of Passing Off c) Penalties for Trademark Violations	
	4 Trademarks in Cyberspace	3
a) Domain Names and Cyber Space Issues b) Conflicts Between Domain Names and Trademark Rights		
4	DESIGN	10
	1 Introduction to Design	3
	a) Meaning and definition of Design b) Objectives and importance of Designs c) Functions of Design in Industry and Commerce	
	2 Registration and Legal Framework	4
	a) Registration procedure for Designs b) Cancellation of Design registration c) International Conventions on Designs	
	3 Layout Design Act	3
a) Layout Design Act, 2000 – Overview b) Protection of Layout Designs under law		
5	TEACHER SPECIFIC MODULE	10
	<i>Directions</i>	
	<ul style="list-style-type: none"> Case studies: Research real-world legal cases related to IP- Identify IP in everyday life, Explore IP resources, IP awareness campaign, Mock IP negotiation, invent something Illustrate how design protection encourages innovation and industry competitiveness. Conduct group discussion-on major IPR types: Copyright, Patent, Trademark, Trade Secret & Trade Dress, Design & Layout Design, Geographical Indication, and Traditional Knowledge. Visit patent holders/industrial units -conduct table talk on real-world application of IPR types in business, innovation, and legal enforcement to protect creativity and economic value. 	10

Essential Readings:

- Reddy, G. B. (2020). *Intellectual property rights and the law* (11th ed.). Gogia Law Agency.
- Gopalakrishnan, N. S., & Agitha, T. G. (2009). *Principles of intellectual property*. Eastern Book Company.

3. Merges, R. P. (2011). *Justifying intellectual property*. Harvard University Press.
4. Merges, R. P. (Ed.). (2007). *Economics of intellectual property law* (Vol. 1). Edward Elgar Publishing
5. Mittal, D. P. (2002). *Indian patents law & procedure*. Taxmann Allied Services.
6. Wadehra, B. L. (2016). *Law relating to intellectual property: Patents, trademarks, copyright, designs & geographical indications* (5th ed.). Universal Law Publishing
7. Narayanan, P. (2007). *Intellectual property law* (3rd ed., revised). Eastern Law House.
8. **Wadehra, B. L.** (2016). *Law relating to intellectual property: Patents, trademarks, copyright, designs & geographical indications* (5th ed.). LexisNexis.
9. **Myneni, S. R.** (2024). *Law of intellectual property* (12th ed.). Asia Law House.

Reference Distribution:

Module	Unit	Reference No.	Remarks
1	1-4	Essential Readings 1,2,3,4	-
2	1-4	Essential Readings 5- 7	-
3	1-4	Essential Readings 8and 9	-
4	1-3	Essential Readings 8and 9	-

Suggested Readings:

1. Department of Science & Technology, Government of India. (2021). *Intellectual property: A primer for academia* (1st ed.). Publication Bureau, Panjab University
2. Ramakrishna, B., & Anil Kumar, H. S. (2017). *Fundamentals of intellectual property rights* (1st ed.). Notion Press.
3. Ramanujan, A. (2020). *Patent law cases and materials: A synthesis for India*. Wolters Kluwer India Pvt. Ltd.
4. Strong, W. S. (1990). *The copyright book: A practical guide* (3rd ed.). 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/Group discussion	5
e)	Book/ Article Review	
f)	Viva-Voce	
g)	Field Report/visit report	8
Total		100

KU6DSEDEC308: BUSINESS ECONOMICS

Semester	Course Type	CourseLevel	Course Code		Credits	Total Hours
6	DSE	300-399	KU6DSEDEC308		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

The business economics course is designed to provide students with a comprehensive understanding of economic principles and their applications in the business decision making .The course explore the fundamental concepts, techniques, and applications of economics tailored specifically for managerial role with in organizations . Students will delve into demand forecasting, pricing strategies, and capital budgeting, equipping them with analytical tools essential for effective business management.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Students will be able to understand the nature and scope of business economics	<i>R, U</i>
2	Students will be able to understand and analyze the concepts related to demand for the product and methods of demand forecasting	<i>U,An</i>
3	Students will acquire knowledge about product pricing strategies and analyse the different pricing method	<i>U,An</i>
4	Students will able to understand about capital budgeting and various investment decision criteria.	<i>U, A, E</i>
5	Students will gain practical experience in demand and product pricing criteria	<i>, A, E</i>

**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		✓	✓	✓			
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COURSE CONTENTS
Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1		INTRODUCTION TO BUSINESS ECONOMICS	8
	1	Meaning Definition and characteristics of business economics	1
	2	Nature and Scope of Business Economics	1
	3	Business Economics and Economic theory	1
	4	Distinction between managerial economics and general economics	1
	5	Relationship of managerial economics with other discipline	1
	6	Business decision making process	1
	7	Role and responsibility of managerial economist in business decision making	2
22		DEMAND FORECASTING –METHODS AND APPROACH	14
	1	Passive and active demand forecasting-	2
	2	Factors involved in demand forecasting	1
	3	Purpose of long term and short term demand forecasting	1
	4	Determinants of demand of durable , nondurable goods and capital goods	1
	5	Forecasting demand for new product	1
	6	Criteria of a good forecasting method – Presentation of a forecast to the management	2
	7	Methods of demand forecasting	6
3		PRODUCT PRICING POLICIES \$ PRACTICES	16
	1	Objectives of pricing	1
	2	Factors affecting pricing policy of a product	1
	3	General Guidelines for Price Fixation of a product .	2
	4	Role of cost in Pricing	1
	5	Demand factor in Pricing	1
	6	Consumer Psychology and Pricing of a product	2
	7	a) Pricing Methods - Cost plus or Full Cost pricing , Multi product pricing , Marginal cost pricing Sealed Bid Pricing , going rate pricing – BEP pricing , Product line pricing and Transfer pricing ,.	4
	8	Administered Pricing ,Dual Pricing -Pricing of a new product	2
	9	Price forecasting	1
	10	Price discounts and differentials	1

4	CAPITAL BUDGETING AND INVESTMENT DECISION	12
1	Meaning and Significance of Capital Budgeting-	1
2	Pre –requisites for Capital Budgeting	1
3	Objective of Capital Budgeting	1
4	Nature of Capital budgeting problems	1
5	Capital Budgeting Process	2
6	Investment Decisions-Types Of Investment Decisions	2
7	Investment Evaluation Criteria	4
	a) Payback period method- average rate of return method-discounted cash flow methods- net present value method- Probability index –Accounting Rate of Return-internal rate of return methods(with numerical illustration)	
5	TEACHER SPECIFIC MODULE	10
	a) Industrial visit-Visit a firm or industry and write a report on pricing ,marketing and product diversification strategies . b) Interview- Conduct an Interview with a successful businessman to explore their real life experiences c) Group discussions- Group discussions on role of demand forecasting in business decision making d) Students work in group to analyse real world business case focusing on economic issues such as pricing strategies., market entry and competition. e) Survey-conduct a survey with producers or supplier s to understand the influence of consumers psychology in product pricing	

Essential Readings:

1. Salvatore, D. (2018). *Managerial economics in a global economy* (9th ed.). Oxford University Press.
2. Varshney, R. L., & Maheswari, K. L. (2014). *Managerial economics*. Sultan Chand & Sons.
3. Mukherjee, S. (2009). *Business & managerial economics (in the global context)* (3rd ed.). New Central Calcutta Agency Pvt. Ltd.
4. Ahuja, H. L. (2016). *Business economics* (13th ed.). S. Chand & Co.
5. Dwivedi, D. N. (2015). *Managerial economics* (8th ed.). Vikas Publishing House.
6. Mote, V. L., Paul, S., & Gupta, G. S. (1977). *Managerial economics: Concepts & cases*. Tata McGraw-Hill.

Reference Distribution

MODULE	Reference	Remark
1	Essential Reading 1,2,4&5	
2	Essential Reading 1,2,3,4&5	
3	Essential Reading 1, 2, 4,6	
4	Essential Reading 1, 2, 4,6	

Suggested Readings

1. Prusty, S. (2025). *Managerial economics*. PHI Learning Private Ltd.
2. Thomas, C. R., & Maurice, S. C. (2006). *Managerial economics: Concepts & applications* (8th ed.). Tata McGraw-Hill
3. Mehta, P. L. (2016). *Managerial economics: Analysis, problems, and cases* (21st rev. ed.). Sultan Chand & Sons.

4. **Wilkinson, N.** (2005). *Managerial economics: A problem-solving approach*. Cambridge University Press.
5. Chandra, P. (2011). *Financial management: Theory & practice*. Tata McGraw-Hill.
6. **Pandey, I. M. (2021)**. *Financial management* (12th ed.). Vikas Publishing House.
7. **Sankaran, S.** (2013). *Managerial economics*. Margham Publications. udc.ac.in
8. **Gillespie, A.** (2010). *Business economics*. Oxford University Press.
9. **Petersen, C. H., Lewis, W. C., & Jain, S. K.** (2006). *Managerial economics*. Pearson Education.
10. **Mote, V. L., Paul, S., & Gupta, G. S.** (1977). *Managerial economics: Concepts & cases*. Tata McGraw-Hill Publishing House..
11. **Mankar, V. G., & Pillai, M. K. S.** (1985). *Business and managerial economics*. Himalaya Publishing House.
12. **Sankaran, S.** (2022). *Managerial economics* (5th ed.). Margham Publications

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 visit report/survey	10
Total		100

KU6DSEDEC309: GREEN ECONOMY AND ENVIRONMENTAL AUDITING

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	DSE	300-399	KU6DSEDEC309		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:

This course examines the principles of the green economy and the role of environmental auditing in promoting sustainable development. We will explore the economic frameworks that support environmental protection and resource efficiency and delve into the methodologies for conducting environmental audits.

Course Prerequisite: Basic understandings on environment, economics, and business management.

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Students will be able to understand the economic, social, and environmental benefits of a green economy.	U
2	Students will be able to evaluate different tools and strategies for promoting green growth.	E
3	Able to critically assess case studies of green economy initiatives around the world.	C
4	Able to Evaluate the role of environmental auditing in promoting environmental responsibility and sustainable business practices.	E
5	Can apply environmental auditing methodologies to assess an organization's environmental performance.	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	GREEN ECONOMY AN OVERVIEW:		10
	1	Introduction-nature and scope, characteristics-principles-advantages, and approaches	2
		a) Green economy a pathway to sustainable development goals and poverty eradication	2
		b) Why green important?	1
	2	Main areas of green economy	3
		a) Renewable energy, green buildings, Sustainable transport, Water management, Waste management, Land management, and circular economy- three 'Es' of green economy	
	3	Role of natural capital in green economy and challenges to green economy	2
2	GREEN ECONOMY POLICIES AND STRATEGIES		10
	1	Green Fiscal Policy: Environmental taxes, subsidies, and market-based instruments.	3
	2	Green Investment and Financing: Public and private sector investment in renewable energy, clean technology, and sustainable infrastructure.	4
	3	Green Trade and Regulation: Trade policies and regulations promoting environmental sustainability. (ADD)	3
3	ENVIRONMENTAL AUDIT -		15
	1	Environmental Audit :Definition; Objectives; Scope-Purpose and importance	2
	2	Regulatory compliance, risk management and continuous improvement	4
	3	Types of environmental audits: Compliance audits, performance audits, and life cycle assessments	4
	4	Environmental Auditing Standards: ISO 14001 and other relevant standards- Environmental management system in India.	5
4	ENVIRONMENTAL AUDIT PROCESS & APPLICATIONS		15
	1	Planning and Scoping the Audit: Defining objectives, scope, and resources	2
	2	Conducting the Audit: Information gathering, on-site inspections, and data analysis.	3
	3	Reporting and Non-Conformance: Documented findings, recommendations, and corrective actions.	3

	4	International environmental auditing agencies- ISO, The International Environmental Assurance Board (IEAB), The Coalition for Environmentally Responsible Economies (CERES)	3
	5	Integrating Environmental Management Systems (EMS): Environmental audit as a tool for continuous improvement in an EMS.	2
	6	The Future of Environmental Auditing: Emerging trends and technologies in environmental assessment	2
	TEACHER SPECIFIC MODULE		10
	<i>Directions</i>		
5	Filed visit to Circular economy (Recycling, composting, and remanufacturing units), training in Environmental auditing, training in green economic activities.		

Essential Readings:

1. Monga, G. S. (2001). *Environment & development*. New Delhi: Deep & Deep Publications Pvt. Ltd.
2. Chary, S. N., & Vyshalu, V. (Eds.). (2001). *Environmental management: An Indian perspective*. New Delhi: McMillan India Ltd.
3. Kaushik, A., & Kaushik, C. P. (2006). *Perspectives in environmental studies*. New Age International (P) Ltd
4. . Scott Cato, M. (2009). *Green economics: An introduction to theory, policy and practice*. Routledge/Taylor & Francis.
5. Nations Environment Programme. (2011). *Supporting resource efficiency* . Retrieved from <https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency>
6. Green Economy Coalition. (2020, June 07). *The 5 principles of green economy*. Retrieved from <https://www.greeneconomycoalition.org/news-and-resources/the-5-principles-of-green-economy>
7. • United Nations Environment Programme. (2011). *Towards a green economy: Pathways to sustainable development and poverty eradication*. UNEP. [Convention on Biological Diversity+2India Environment Portal+2](#)
8. • United Nations Environment Programme. (2014). *Delivering the green economy through financial policy: Technical paper*. UNEP; Frankfurt School of Finance & Management. [UN Environment Document Repository](#)
9. • United Nations Environment Programme. (2013). *Green economy and trade: Trends, challenges and opportunities*. UNEP.
10. • International Labour Organization. (n.d.). *ILO Encyclopaedia*., <https://www.iloencyclopaedia.org>
11. • Charles Sturt University. (n.d.). *ENM422: Environmental Assessment and Auditing*. <http://www.csu.edu.au/handbook/handbook21>
12. Boucherit, L., et al. (2014). *Environmental Audits*. Mercury Learning & Information.
13. Van Guilder, C. (2014). *Environmental audits*. Mercury Learning & Information.
14. Greeno, J. L., Hedstrom, G. S., & DiBerto, M. (1987). *Environmental Auditing: Fundamentals and Techniques*. Center for Environmental Assurance.

Reference Distribution:

Module	Unit	Reference	Rmarks
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FYUGP DEVELOPMENT ECONOMICS

1	1-3	Essential Reading 1-4	
2	1-3	Essential Reading 5-7	
3	1-4	Essential Reading 1-2.8-10	
4	1-6	Essential Reading 11-14	

Suggested Readings:

1.Rao, P. S. B., & Rao, P. M. (2001). *Environment management and audit*. Deep & Deep Publications.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Paper- 1	6
b)	Test Paper-2	6
c)	Assignment/seminar/ Viva-Voce	5
d)	Field Report	13
Total		100

KU6DSEDEC310: MATHEMATICAL ECONOMICS II

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	Major	300-399	KU6DSEDEC310		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:

Mathematical Economics is an advanced undergraduate course designed to provide students with a rigorous understanding of the mathematical techniques and tools used in economic analysis. The course integrates mathematical concepts with economic theory, enabling students to formulate and solve economic models. The course develops the ability to use optimization technique, matrix algebra in economic contexts.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	The course will provide an understanding of the fundamental concepts of linear programming, input output analysis and game theory	R,U
2	The students will be able to solve the optimization problems, problems in input output analysis and game theory and analyze the solutions	R,U,An
3	It will enhance the capacity of the students in recognising an economic variable with the help of mathematical tools and their applications	U,A
4	The basic outcome of the course will be the enhancement of skills in applying mathematical concepts that are indispensable for in depth study of theoretical as well as empirical economics.	U,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	✓		✓		✓		

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
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1	INTRODUCTION TO LINEAR PROGRAMMING		8
	1	Optimization- meaning and importance	1
	2	Unconstrained and constrained optimization	1
	3	Linear Programming- a constrained optimisation technique; meaning and definition	1
	4	Basic assumptions of Linear Programming	1
	5	Formulation of LPP- essential ingredients	2
	6	Applications and Limitations of Linear Programming	2
2	LINEAR PROGRAMMING METHODS		12
	1	Graphic method; steps and concepts (feasible region, feasible and optimal points, feasible and optimal solution)	2
	2	Extreme point theorem, solution to maximisation and minimisation problem	2
	3	Simplex method- criterion and concepts(Slack and surplus variable, Incoming and outgoing variable, Key element)	2
	4	Solution to Maximisation and Minimisation problems	3
	5	Duality in LPP- formulation and characteristics	2
	6	Economic interpretation of dual	1
3	INPUT OUTPUT ANALYSIS		15
	1	Input output analysis- Concept and assumptions	1
	2	Structure of an Input output Model	2
	3	Types of input output model –Open and closed model, static and dynamic model	2
	4	Solutions to two sector and three sector model	4
	5	Technological viability and Hawkins Simon Conditions	3
	6	Economic meaning of the Hawkins – Simon Conditions	1
	7	Applications and Limitations of Input Output Analysis	2
4	GAME THEORY		15
	1	Game theory- definition; characteristics of a game	1
	2	Fundamental concepts in Game Theory	1
	3	Classification and description of game- Two person zero sum game , Two person non zero sum game, cooperative games and non cooperative games	2
	4	Pure strategy and mixed strategy- Solution for Pure Strategy Game- Maximin and Minimax strategy; saddle point	3
	5	Solution for Mixed Strategy Game- Arithmetic method, Principle of dominance and graphic method	4
	6	Transforming game to LPP	2
	7	Concept of Nash equilibrium and Prisoner’s Dilemma	2
5	TEACHER SPECIFIC MODULE		10

	<p>a) Problem Sets: Regularly assigned homework that involves solving mathematical problems</p> <p>b) Discussion Groups: Engaging in discussions on how mathematical economics can be applied to current economic issues</p> <p>c) Case Studies: Analysing real world economic issues using mathematical models to understand the practical applications of theoretical concepts.</p> <p>d) Assignment and Peer Review: Assignments are given to the students on different topics ask them to reviewing the peer’s assignments to enhance collaborative learning.</p>	
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Essential Readings:

1. Dowling E.T (2003) Introduction to Mathematical Economics, 2nd Edition, Schaum’s Outline Series, McGraw-Hill, New York.
2. Chiang A.C. and K. Wainwright (2013) Fundamental Methods of Mathematical Economics, Tata McGraw-Hill Education; Fourth edition
3. Intriligator D Michael (2013) Mathematical Optimisation and Economic Policy, PHI Learning Private Limited
4. Sydsaeter K, Hammond P AND Strom, (2012) Essential Mathematics for Economic Analysis, Pearson
5. Simon C P and Blume L (1994) Mathematics for Economists, W.W Norton &Company
6. Allen R.G.D (1976) Mathematical Economics 2 ed., Macmillan

Reference Distribution:

Module	Reference	Remarks
1	Essential Readings 1,2,3	
2	Essential Readings 1,2,3	
3	Essential Readings 2,3,4,5,6	
4	Essential Readings 2,3,4,5,6	

Suggested Readings:

1. Boumol. W. J (1987) Economic Theory and Operations Analysis, Prentice Hall of India.
2. Colell, A. Mas et. Al (1991) Microeconomic Theory, Harvard University Press, Cambridge.
3. Hands, D.W. (1991) Introductory Mathematical Economics, D.C. Heath.
4. Handy, S.T. (1997) Operations Research, Prentice-Hall of India, New Delhi.
5. Mukherji, B. and V. Pandit (1982) Mathematical Method of Economic Analysis, Allied Publishers, New Delhi.

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

KU6DSEDEC311: DEVELOPMENT ISSUES IN KERALA

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	Major	300-399	KU6DSEDEC311		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:

The course offers a comprehensive analysis of the economy of Kerala. The curriculum covers the structure of Kerala economy, its sector -wise analysis, major development issues including food security, aging, migration, unemployment and fiscal crisis faced by the state. The course is primarily designed for economic students for analysing the strength and weaknesses of Kerala economy.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Students will be able to understand the development experience, structural changes and unique features of Kerala economy	R,U
2	Develop a deep understanding of sectoral performances of Kerala including agriculture, industry and services and analyse its strength and weaknesses	R,U, An
3	Students will able to apply economic theories and concepts for understanding development issues	U,A
4	The course will provide the students a basic understanding about the development issues of Kerala	U,An, E
5	The course will help the students to assess the socio economic impacts of the development issues of Kerala and develop policy recommendations to address these issues	R,U,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	STRUCTURE OF KERALA ECONOMY		8
	1	Development Experience of Kerala – an overview: Kerala’s Development since the formation of State	3
	2	Structural Composition- Primary, Secondary and Tertiary Sector: Changes over the years	3
	3	Unique features of Kerala Economy	2
AGRICULTURE,INDUSTRY AND SERVICE SECTOR			12
2	1	Agricultural Development since 1950 land reforms, changes in cropping pattern	2
	2	Agricultural Stagnation and food security	2
	1	Industrial sector performance- traditional, modern, small scale and public sector industries	3
	2	Industrial backwardness of Kerala	1
	3	Role and importance of service sector- Education, Health, Tourism, IT and Banking sectors.	3
	4	Service led growth of Kerala- problems and concerns.	1
3	DEMOGRAPHY, EMPLOYMENT AND MIGRATION		15
	1	Demographic Indicators – Birth rate, Death rate, Infant Mortality Rate, Maternal Mortality Rate, Sex ratio	2
	2	Age distribution problem	2
	3	Employment, Unemployment and Poverty in Kerala – Structure and Trends	4
	4	Problem of Educated Unemployment	1
	5	Migration from Kerala- Nature, Magnitude and Impact	4
	6	Student migration, Return migration and Interstate migration	2
4	STATE FINANCES AND PLANNING		15
	1	Fiscal Reforms and Fiscal Crisis in Kerala	4
	2	Role of Finance Commission in Financial Devolution	2
	3	Fiscal Management- Importance of FRBM Act	2
	4	Highlights of Current Kerala Budget	2
	5	Decentralised Planning in Kerala- Performance and Problems	2
	6	Recent Development Schemes of Kerala	3
TEACHER SPECIFIC MODULE			10
5	a) Comparative Studies: Comparing Kerala’s economic model with other States to understand the unique aspects of its development		
	b) Group Discussion: Conduct group discussion in the classroom on development issues and challenges faced by Kerala economy		
	c) Case studies: Analysing specific sectors of Kerala’s economy such as agriculture, industry, service to understand their development, challenges and contributions to the State Domestic Product		

	<p>d) Debate: Conduct debates on emerging issues of Kerala including student migration, return migration, Kerala as a consumer State and Jobless growth of Kerala</p> <p>e) Data Analysis: Analysing recent Kerala budget data to understand revenue sources, expenditure pattern, deficits and surpluses</p>	
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Essential Readings:

1. Rajan K (2009): Kerala Economy Trends During the Post Reform Period, Serials Publication (P) Limited, New Delhi
2. Prakash B A and Alwin Jerry(ed)(2018): Kerala’s Economic Development Emerging Issues and Challenges, Sage Publications India (p) Limited, New Delhi
3. Ghosh B N and D Padmaja Namboodiri (ed)(2009): The Economy of Kerala Yesterday, Today and Tomorrow, Serials Publication (P) Limited New Delhi
4. Prakash, B.A (ed) (1999): Kerala’s Economic Development: Issues and Problems, Sage .Publication, New Delhi
5. Economic Review, Various Issues, State Planning Board, Kerala

Reference Distribution:

Module	Reference	Remarks
1	Essential Readings 1,3,4	
2	Essential Readings 1,2,3,4	
3	Essential Readings 1,2,3,4,5	
4	Essential Readings 1,2,3,4,5	

Suggested Readings:

1. Varghese P.K. & Liji B.,(2015) “Gujarat Miracle: A Challenge to Kerala Model of .Development”, Southern Economist, Volume 54, Number 16
2. Harilal, K.N. & K.J. Joseph(2000): “Stagnation and revival of Kerala economy: An open economy perspective,” Centre for Development Studies, Trivandrum Working Papers ,305 .Centre for Development Studies, Trivandrum,
3. Zachariah, K.C. and S. Irudaya Rajan (2012):Kerala’s Demographic Future: Issues and Policy Options, Academic Foundation, New Delhi :
4. Zachariah K.C. and S. Irudaya Rajan (2012):Kerala,,s Gulf Connection 1998- 2011 Economic and Social Impacts of Migration, Orient Black swan, New Delhi .
5. Zachariah, K C et al (2003): Dynamics of Migration in Kerala, Orient Longman, India Rajasenan, D. and Gerard De Groot (ed) (2005): Kerala Economy: Trajectories, Challenges .and Implications, CUSAT, Kochi M.

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
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KU6SECDEC304: GOODS AND SERVICES TAX (GST)

Semester	Course Type	Course Level	Course Code			Credits	Total Hours
VI	SEC	300-399	KU6SECDEC304			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

KU6SECDEC305: FINANCE AND TECHNOLOGY

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	SEC	300-399	KU6SECDEC305		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

KU6SECDEC306: DATABASES AND BASIC COMPUTATIONAL TECHNIQUES FOR DATA ANALYSIS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VI	SEC	300-399	KU6SECDEC306		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	H O U R S
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.	
5555	TEACHER SPECIFIC MODULE		10
	This module aims at engaging students through simple practical and interactive learning activities.		

Essential Readings:

1. Riedel, M. (2005). *Secondary data*. In K. Kempf-Leonard (Ed.), **Encyclopedia of social measurement** (pp. 455–461). Elsevier. <https://doi.org/10.1016/B0-12-369398-5/00071-2>

2. **Reserve Bank of India.** (2017). *Database on the Indian economy* (DBIE Brochure). <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.* World Bank. <https://openknowledge.worldbank.org/handle/10986/35218>
5. **Narayana, R., Ranjan, S., & Tyagi, R.** (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, Ministry of Statistics and Programme Implementation.** (2021). *All-India report: Sixth economic census.* <http://mospi.nic.in/all-india-report-sixth-economic-census>
8. **Government of India.** (2016). *Agricultural census 2015–16: Final report.* https://agcensus.nic.in/document/agcen1516/ac_1516_report_final-220221.pdf
9. **Government of India.** (2011). *Data on migration.* <https://censusindia.gov.in/2011census/migration.html>
10. **Government of Kerala, State Planning Board.** (2020). *Economic review 2020.* <https://spb.kerala.gov.in/>
11. **Government of Kerala, Department of Economics and Statistics.** (n.d.). *Publications: Agriculture statistics.* <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/EC37AE985DB7EB75CA256ADC000C35C6/\\$File/64400_1998.pdf](https://www.ausstats.abs.gov.au/ausstats/free.nsf/0/EC37AE985DB7EB75CA256ADC000C35C6/$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_20pdf
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*. 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

KU7DSCDEC401: ADVANCED MICROECONOMICS I

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCDEC401		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:

- Nicholson, W., & Snyder, C. M. *Microeconomic Theory Basic Principles and Extensions*. Cengage Learning. Latest Edition
- 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

KU7DSCDEC402: ADVANCED MACROECONOMICS I

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCDEC402		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	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>				✓ <input type="checkbox"/>	
CO 2	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>		✓ <input type="checkbox"/>		
CO 3	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>			✓ <input type="checkbox"/>	

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
	TEACHER SPECIFIC MODULE		10
5	<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

KU7DSCDEC403: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

Semester	Course Type	Course Level	Course Code	Credits	Total Hours	
VII	DSC	400-499	KU7DSCDEC403	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 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
1	Apply the concept of probability distribution in analysing economic phenomenon	A, An
2	Explain and demonstrate the idea of sampling distribution	An
3	Construct confidence interval for population parameter and apply it for analysing economic phenomenon	An
4	Explain and demonstrate the hypothesis testing procedure	An
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	✓		✓		✓		
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 PROBABILITY AND PROBABILITY DISTRIBUTION		12
	1	a) Random experiment- Random Variables -Discrete and continuous random variable-sample point, sample space, sample events and types-Permutations and combinations. b) Probability concepts and rules- Classical, Relative frequency, Subjective and Axiomatic approaches to defining probability	3
	2	Probability -Addition, Conditional probability and multiplication rules and problems. Bayes' theorem and problems.	3
	3	a) Mathematical expectation and variance with properties-Probability distribution -. b) Discrete probability distribution: Binomial and Poisson distribution and their properties. c) Continuous probability distribution: Normal probability distribution, Standard normal curve and its properties, Uniform probability distribution- Log normal distributions- Exponential probability distribution	6
2	STATISTICAL HYPOTHESIS		10
	1	Law of large numbers-Central limit theorem-Sampling distribution of mean and proportion, standard error	2
	2	Statistical Inference - meaning and scope - Relevance of random sampling in statistical inference - properties of random sampling - determination of sample size - alternative views – sampling error	4
3	Null and alternative hypothesis, Type I and II errors, level of significance, one tail and two tail tests, degrees of freedom, critical regions, p-value etc.	4	
3	ESTIMATION AND HYPOTHESIS TESTING		14
	1	Terms and concepts of statistical estimation-Point estimation and Interval Estimation - Properties of a good estimator-Confidence Interval estimate and probability statement-Confidence interval for mean and population proportion	4
2	Hypothesis testing procedure- Parametric and non-parametric tests-Basic difference and relative merits and demerits	4	

	3	Problems Small sample and large sample tests –Z test and Student’s t test-distribution and its properties. 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- F distribution and its properties	6
4	HYPOTHESIS TESTING: NON PARAMETRIC TESTS AND ANOVA		14
	1	Chi Square test and properties - Tests of goodness of fit, independence of attributes and homogeneity.	5
	2	Sign test, Wilcoxon Signed Rank test - Mann Whitney U Test- Kruskal-Wallis H test.	5
	3	F test- One way and Two-way ANOVA.	4
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 simple exercise based on parametric and non-parametric tests by using statistical MS Excell and SPSS which would enhance learning experience of the course.		10

Essential Readings:

1. Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cocharan , 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. G.S. Monga. (2002). *Mathematics and Statistics for Economics*. Vikas Publishing House Pvt Ltd.
5. Hooda, R. P. (2013). *Statistics for business and economics*. Vikas Publishing House.
6. 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	
2	1	Essential Reading 1, 3,4	
	2	Essential Reading 1, 2, 4, 5	
	3	Essential Reading 4,5	
3	1	Essential Reading 1, 4, 5	

	2	Essential Reading 4	
	3	Essential Reading 4	
4	1	Essential Reading 1, 2, 3, 4, 5	
	2	Essential Reading 1, 2, 3, 5	
	3	Essential Reading 1, 2, 3, 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	
g)	Field Report/data interpretation	8
Total		100

KU7DSCDEC404: READINGS IN POLITICAL ECONOMY

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCDEC404		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 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	Understand the evolution of political economy and key concepts like value, class, and modes of production.	U
2	Apply classical, Marxian, Keynesian, and neoliberal theories to analyze economic systems, crises, and policy issues.	An, A
3	Evaluate institutions, human capital, inequality, and global economic structures, with reference to India.	An, E
4	Compare and synthesize political economy theories to assess neoliberalism, global capitalism, and socio-economic impacts.	An, E
5	Design policy recommendations based on political economy theories to address inequality, labor, and development challenges.	C

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

Mapping of Course Outcomes to PSOs							
CO \ PSO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	✓					✓	
CO2	✓	✓	✓		✓	✓	
CO3	✓	✓	✓		✓	✓	✓
CO4	✓			✓	✓	✓	
CO5	✓	✓	✓	✓	✓	✓	✓

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 available. It can be data analysis or readings available in the websites. Links are as follows;		10

1.1 https://wid.world/	
1.2 https://wpid.world/	

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		
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

KU7DSCDEC405: FINANCIAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VII	DSC	400-499	KU7DSCDEC405		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 intends to familiarize the students with the basic concepts in financial economics along with some of the basic models which are used to benchmark valuation of assets and derivatives. After completing this course, the student will be able to develop comprehensive knowledge on the role of finance in the operation of an economy. It also enables them to know the operation of the Indian Financial System and activities in the financial markets.

Course Prerequisite: NIL

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Understand the structure and functions of financial systems, financial markets, and financial institutions.	, U
2	Apply valuation methods for bonds, stocks, and other financial securities, including dividend discount and P/E ratio approaches.	A
3	Analyze different types of risk, calculate risk and return for assets and portfolios, and understand CAPM, beta, and security market line.	An E
4	Evaluate investment decisions using risk-return trade-offs, bond and equity valuation, and the implications of Modigliani-Miller hypothesis.	E
5	Understand financial derivatives (forwards, futures, options, swaps), their pricing, payoffs, and applications in hedging and risk management.	, U, A

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

Mapping of Course Outcomes to PSOs							
CO \ PSO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	✓		✓			✓	
CO2	✓	✓	✓			✓	
CO3	✓	✓	✓			✓	
CO4	✓	✓	✓	✓	✓	✓	
CO5	✓	✓	✓		✓	✓	

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	HOURS
1	INTRODUCTION TO FINANCIAL ECONOMICS		12
	1	Financial system- Functions of financial system	2
	2	Structure of financial system	2
	3	Financial markets - Money and capital markets	2
		a) Primary and secondary markets	1
		b) Instruments in the money market	2
		c) Instruments in the capital markets	2
	4	Financial institutions.	1
2	VALUATION OF BONDS AND SECURITIES		13
	1	Financial securities- zero coupon bond, fixed interest, index linked securities etc.	3
	2	Fundamentals of Valuation of Securities	1
	3	Valuation of Bonds and Stocks - Bond Yield, Yield to Maturity	2
	4	Equity Valuation - Dividend Discount Model - The P/E Ratio Approach	2
		Irrelevance of Dividends	2
	5	Modigliani and Miller Hypothesis.	3
3	RISK AND RETURN		12
	1	Types of risk	1
	2	Measurement of Risk and Return of an asset	2
	3	Measurement of Risk and Return of a Portfolio	2
	4	Determinants of Beta	1
	5	Risk-Return trade off.	1
	6	The capital market line	1
	7	The capital asset pricing model (CAPM)	2

	8	The beta of an asset and of a portfolio	1
	9	Security market line.	1
	DERIVATIVE MARKETS		13
4	1	An introduction to financial derivatives	2
	2	Types and uses of derivatives	2
	3	Forward Contracts - determination of forward prices	2
	4	Futures Contract - Relation between Spot and Future Prices - Hedging in Futures	2
	5	Forward vs future contract	1
	6	Options – types - value of an option - the Pay-offs from Buying and Selling of Options	3
	7	Swaps	1
	TEACHER SPECIFIC MODULE		10
5	This module includes interactive sessions that facilitate deep learning and critical thinking among students through the following ways		
	<ul style="list-style-type: none"> ➤ Present case studies of financial markets and institutions in different countries. ➤ Explain bond valuation and yield to maturity with mathematical examples. ➤ Assign problems that require students to calculate bond yields and stock values. ➤ Conduct exercises on portfolio construction and risk measurement. ➤ Present case studies on portfolio management and risk assessment. ➤ Discuss case studies of companies using derivatives for hedging and speculation. ➤ Encourage students to participate in mock trading sessions 		

Essential Readings:

1. Bhole, L. M., & Mahakud, J. (2017). *Financial institutions and markets: Structure, growth and innovations* (5th ed.). Tata McGraw-Hill Education.
2. Pathak, B. V. (2018). *The Indian financial system: Markets, institutions, and services* (5th ed.). Pearson Education India.
3. Damodaran, A. (2012). *Investment valuation: Tools and techniques for determining the value of any asset* (3rd ed.). Wiley.
4. Chandra, P. (2017). *Financial management: Theory and practice* (9th ed.). Tata McGraw-Hill Education.
5. Parasuraman, N. R. (2012). *Fundamentals of financial derivatives*. Wiley India Pvt. Ltd.
6. Kumar, S. S. S. (2010). *Financial derivatives*. PHI Learning Pvt. Ltd.

Reference Distribution:

Module	Reference	Remarks
1	Bhole, L. M., & Mahakud, J. (2017). Financial institutions and markets: Structure, growth and innovations (5th ed.). Tata McGraw-Hill Education	
	Desai, V. (2011). <i>Industrial Economy of India</i> . Himalaya Publishing House.	
2	Damodaran, A. (2012). Investment Valuation: Tools and Techniques for Determining the Value of Any Asset. Wiley.	
	Chandra, P. (2017). Financial management: Theory and practice (9th ed.). Tata McGraw-Hill Education.	
3	Chandra, P. (2017). Financial management: Theory and practice (9th ed.). Tata McGraw-Hill Education	
	Bhole, L. M., & Mahakud, J. (2017). Financial institutions and markets: Structure, growth and innovations (5th ed.). Tata McGraw-Hill Education	
4	Parasuraman, N. R. (2012). Fundamentals of financial derivatives. Wiley India Pvt. Ltd.	
	Kumar, S. S. S. (2010). Financial derivatives. PHI Learning Pvt. Ltd	

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

KU8DSCDEC406: ADVANCED MICROECONOMICS II

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCDEC406		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

**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 a) Why markets fail: Market power, externalities, public goods, incomplete information and information asymmetry	1
	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 a) Economic efficiency and welfare analysis: consumer surplus and producer surplus approach	2
	2	The first fundamental theorem of welfare economics a) Pareto efficiency and simple general equilibrium model	3
	3	Equity and Efficiency a) Distributional dilemma and second fundamental theorem of welfare economics: exchange with initial endowments	2
	4	Partial and general equilibrium framework a) Walras' Law: Walras' proof of the existence of general equilibrium price	3

	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)		10

	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.	
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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:

Mod ule	Unit	Reference No.	Remark s
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	-
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:

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

Assessment Rubrics:

Evaluation Type	Marks
End Semester Evaluation	70
Continuous Evaluation	30

FYUGP DEVELOPMENT ECONOMICS

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

KU8DSCDEC407: ADVANCED MACROECONOMICS II

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC-	400-499	KU8DSCDEC407		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)

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	UNT	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

	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:

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). <i>Thinking, Fast and Slow</i> . 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

KU8DSCDEC408: APPLIED ECONOMETRICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCDEC408		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							
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
1	QUALITATIVE RESPONSE MODELS		12
	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	
2	BASICS OF TIME SERIES ECONOMETRICS		12
	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.
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
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.

KU8DSCDEC409: PUBLIC POLICY AND DEVELOPMENT

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCDEC409		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: This course examines the complex relationship between public policy and development. It will explore how governments design and implement policies to promote economic growth, social progress, and environmental sustainability. This course will analyze the effectiveness of different policy approaches in various contexts, considering both successes and failures.

Course Prerequisite: Thorough understanding on Microeconomics, Macroeconomics and Statistics

Course Outcomes:

CO No.	Expected Outcome	Learning Domains
1	Students will be able to explain the theoretical underpinnings of economic development and public policy.	U
2	Able to analyze the impact of government policies on economic growth, inequality, and poverty.	An
3	Able to evaluate the effectiveness of different policy instruments in achieving economic and social goals.	E
4	Able to develop and defend your own policy recommendations based on economic theory and evidence.	C
5	Able to Critically analyse real-world policy debates and their potential consequences	C,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"/>			✓ <input type="checkbox"/>			
CO 2		✓ <input type="checkbox"/>			✓ <input type="checkbox"/>		
CO 3			✓ <input type="checkbox"/>				✓ <input type="checkbox"/>

CO 4			✓□			✓□	
CO 5	✓□			✓□			

COURSE CONTENTS

Contents for Classroom Transaction:

M O D U L E	U N I T	DESCRIPTION	H O U R S
1	PUBLIC CHOICE		13
	1	Foundations of public choice	4
		a) Meaning and scope of Public Choice	
		b) Private vs. public mechanisms of resource allocation	
		c) How individuals and governments make collective economic decisions	
	2	Preference revelation and collective decision-making	4
		a) Preference revelation and aggregation	
		b) Voting systems and their economic implications	
		c) Challenges in translating individual preferences into collective choices	
	3	Public choice and democratic processes	5
		a) Economic theory of democracy	
		b) Politico-economic-bureaucratic interactions	
	c) Rent seeking and direct unproductive profit-seeking activities (DUP)		
2	RATIONALE FOR PUBLIC POLICY		11
	1	Allocation of resources for public goods	2
	2	Voluntary exchange models; Impossibility of decentralized provision of public goods	4
	3	Demand revealing schemes for public goods	2
	4	Provision of infrastructural facilities; Role of public policy in removing distributional inequalities and regional imbalances.	3
3	PUBLIC POLICY EVALUATION METHODS		14
	1	Introduction to Policy Analysis	3
		a) Definition of Policy Analysis	
		b) Purpose and scope of policy analysis	
		c) Importance in government and social programs	
		d) Key steps in policy analysis	
	2	Experimental Approaches in Policy Evaluation	5
		a) Randomized Social Experiments (RSEs)	
		b) Naive Non-Experimental Estimator	
		c) Natural Experiments	
3	Quasi-Experimental Methods	6	
	a) Instrumental Variables (IV)		
	b) Regression Discontinuity Design (RDD)		

	c) Difference-in-Differences (DiD)	
	d) Before-After Analysis	
	e) Matching Methods	
	PUBLIC POLICY AND HUMAN DEVELOPMENT	12
4	1 Social Protection and Policy Frameworks	5
	a) Definition of Social Protection b) Social Protection Policies in India and Worldwide c) Public policy to promote innovation-based growth d) Key factors affecting public policies: international, Indian, and corporate/public policy consultancy perspectives	
	2 Conceptual Framework for Human Development	4
	a) Human Development and Policy Analysis b) Education Policy, Health Policy, and Economic Policy	
	3 Contemporary Challenges in Public Policy	3
	a) Inequality, Sustainability, and Globalization b) Public Policy Making in India	
	TEACHER SPECIFIC MODULE	10
	<i>Directions</i>	
5	<ul style="list-style-type: none"> • Simulations and Games- The Marketplace Game- Fiscal Policy Simulation, Public engagement -Model Legislature, Public Hearing Simulation. • Conduct policy simulation exercises where students design, implement, and evaluate a mock public policy. • Analyze real-world datasets using advanced statistical or econometric tools to assess policy impacts. • Organize debates and policy critique sessions on contemporary issues like inequality, sustainability, and governance. • Prepare research-based policy briefs or presentations recommending actionable solutions to complex societal problems. 	

Essential Readings:

1. **Menutt, P.** (1996). *The economics of public choice*. Edward Elgar.
2. **Stiglitz, J. E., & Brown, E. P.** (1988). *Economics of the public sector* (Vol. 50). W. W. Norton.
3. **Stiglitz, J. E., & Rosengard, J. K.** (2015). *Economics of the public sector* (4th international student ed.). W. W. Norton & Company.
4. **Holtz-Eakin, D., & Rosen, H. S. (Eds.)**. (2003). *Public policy and the economics of entrepreneurship*. MIT Press.
5. **Sharma, M., Gupta, Y., & Sharma, A.** (2018). *Developments in economics and public policy*. Routledge.
6. **Goodin, R. E., Moran, M., & Rein, M. (Eds.)**. (2006). *The Oxford handbook of public policy*. Oxford University Press.
7. **Nayyar, D.** (2023). Economic policies for human development: A neglected domain. *Journal of Human Development and Capabilities*, 24(4), 430–438. <https://doi.org/10.1080/19452829.2023.2252646>

Reference Distribution:

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

4	1-3	Essential Readings 7	
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Suggested Readings:

1. Sen, A. (2000). *Development as freedom*. Anchor Books.
2. Smith, K. B., & Larimer, C. W. (2017). *The public policy theory primer* (3rd ed.). Westview Press.
3. Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Publishers.
4. Overholt, W. H. (1993). *The rise of China: How economic reform is creating a new superpower*. W. W. Norton & Company.
5. Banerjee, A. V., & Duflo, E. (2011). *Poor economics: A radical rethinking of the way to fight global poverty*. PublicAffairs.

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/ policy simulation- a mock public policy exercises	8
Total		100

KU8DSCDEC410: ADVANCEMENTS IN ECONOMIC RESEARCH

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSCDEC410		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

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
3	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
4	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
5	<i>Directions</i>		
	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	1-7	Essential Reading 1	
2	1	Essential Reading 6	
	2	Essential Reading 6	
	3-4	Essential Reading 7&6	
	5	Essential Reading 8	
3	1	Essential Reading 3&4	
	2	Essential Reading 3,5	
	3	Essential Reading 3,5	
	4	Essential Reading 3,5	
	5	Essential Reading 7	
4	1	Essential Reading 4	
	2-4	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-1	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

KU8DSEDEC401: PROJECT MANAGEMENT

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSE	400-499	KU8DSEDEC401		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
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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
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	Business level strategies	3
		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
3	TECHNICAL AND MARKET DEMAND ANALYSIS		10
	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			
4	FINANCIAL ESTIMATES AND PROJECTIONS		10
	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	
5	TEACHER SPECIFIC MODULE	10
	Directions: Illustrations in Appendix of Projects: Planning, Analysis, Selection, Financing, Implementation and Review by Prasanna Chandra (Latest Edition)	-
	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. <ul style="list-style-type: none"> • Visit industrial area inside Kerala maximum for 3 days and prepare reports 	

Essential Readings:

6. Prasanna Chandra. *Projects: Planning, Analysis, Selection, Financing, Implementation and Review*, McGraw Hill Publications, Latest Edition
7. 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	
5	-	Essential Reading 1	Preferably

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

KU8DSEDEC402: ECONOMICS OF INNOVATION

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSE	400-499	KU8DSEDEC402		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	✓		✓				
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	3
		a) Product and process innovation, institutional and organisational innovation, drastic and incremental innovation, disruptive innovation	
	3	Defining ‘knowledge’ and ‘technology’	1
	4	Stages in the innovation process – innovation, adoption and diffusion	1
	5	Microeconomic effects of innovation	4
		a) Effects of product and process innovations	
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	4
		a) Is new knowledge a public good?	
		b) Are there externalities from innovative activities?	
	2	Solution to market failure by restoring incentives to innovate	6
		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	
	3	Role of IPR	5
	a) Why are IPR awarded?		
	b) classification of IPR – patents, trademarks, designs and utilities and copy rights		
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		
4	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
		4	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				
5	TEACHER SPECIFIC MODULE		10	
	Directions: <i>Box Cases from Innovation, Intellectual Property and Economic Growth</i> by Christine Greenhalgh and Mark Rogers		-	
	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:

8. Christine Greenhalgh and Mark Rogers, *Innovation, Intellectual Property and Economic Growth*, Princeton University Press, Latest Edition
9. Lundvall, B. Å. (2007). National innovation systems—analytical concept and development tool. *Industry and innovation*, 14(1), 95-119.
10. 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.
11. Malerba, F. (2002). Sectoral systems of innovation and production. *Research policy*, 31(2), 247-264.
12. Hall, A., Mytelka, L., & Oyeyinka, B. (2005). Innovation systems: Implications for agricultural policy and practice.
13. Ziemnowicz, C. (1942). Joseph A. Schumpeter and innovation. *Socialism and Democracy*, 2(1), 2-4.
14. 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.

15. 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

KU8DSEDEC403: BEHAVIORAL ECONOMICS

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	DSC	400-499	KU8DSEDEC403		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

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	
2	The concept of ‘deliberation cost’	3	

		a) infinite regress problem (concept only)	
	3	Intuitive judgement and biases	6
		a) Heuristics and Representativeness	
		b) Anchoring effect and Framing effect	
	4	Social preference behaviour	3
		a) The Public goods game	
	EMERGING THEMES IN BEHAVIOURAL ECONOMICS		10
4	1	The economics of happiness	4
		Three concepts of wellbeing – emotional happiness, life satisfaction and eudaimonia	
		Altruistic behaviour and happiness	
		happiness index	
	2	Culture, identity and economic behaviour	4
		Cultural economics	
3	Neuroeconomics	2	
	TEACHER SPECIFIC MODULE		10
5	Directions: Mind Game Illustrations from <i>Misbehaving: The Making of Behavioural Economics</i> by Richard H Thaler		-
	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:

16. Ogaki M & Tanaka, S. C. (2017). *Behavioural Economics: Toward a New Economics by Integration with Traditional Economics*. Springer.
17. Thaler, R. H. (2015). *Misbehaving: The making of behavioural economics*. WW Norton & Company.
18. Thaler, R. H. (2016). Behavioural economics: Past, present, and future. *American economic review*, 106(7), 1577-1600.
19. 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	-
	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:

27. Nick Wilkinson and Matthias Klaes (2012), An Introduction to Behavioural Economics, 2nd Edition
28. Palgrave Macmillan · Sanjit Dhami, “The Foundations of Behavioural Economic Analysis”, Oxford University Press (2016).
29. 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

KU8RPHDEC401: PROJECT (IN HONOURS PROGRAMME)

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	RPH	400-499	KU8RPHDEC401		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	-----

KU8RPHDEC402: RESEARCH PROJECT (IN HONOURS WITH RESEARCH PROGRAMME)

Semester	Course Type	Course Level	Course Code		Credits	Total Hours
VIII	RPH	400-499	KU8RPHDEC402		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

- 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.
- The Project can be done in the same institution or any other higher educational institution (HEI) or research centres.
- 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

- 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.
- In Honours with Research programme, the student has to do a mandatory Research Project of 12-credits in semester 8.
- 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 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
Total Marks		90	60

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

