

Sacred Heart College (Autonomous)

Department of Economics

MA ECONOMICS

Course plan

Academic Year: 2016 - 17

Semester I

COURSE PLAN

PROGRAMME	MASTER OF ECONOMICS	SEMESTER	1
COURSE CODE AND TITLE	16P1ECOT01 : MICROECONOMIC THEORY- 1	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	Dr. MADHUSUDHANAN NAIR M S		

COURSE OBJECTIVES
To take rational buying decisions and also help a firm to design suitable marketing strategies
To equip with the knowledge and skill in effective decision making under uncertain market situations, and also understands the importance of time allocation and household management
To develop the skill in analyzing business phenomena in terms of transaction cost saving.
To discuss the economic level of information search possible under different situations and the concept of bounded rationality
To understand economies of scope and learning curves and help in analyzing the nature and functioning of modern multiproduct firms

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
MODULE I				
1	Demand functions	PPT/ Lecture	video	
2	Demand functions	PPT/Lecture		
3	Cobb-Douglas preferences	PPT/Lecture	video	
4	Quasilinear preferences	PPT/Lecture	e-resource	
5	Hicksian revision of demand theory	PPT/Lecture		
6	Hicksian revision of demand theory	PPT/Lecture		
7	Pragmatic approach and Linear expenditure system	Lecture		
8	Pragmatic approach and Linear expenditure system	Lecture		
9	Pragmatic approach and Linear expenditure system	Lecture		
10	Constant elasticity demand function	Lecture		
11	Dynamic versions of demand	Lecture		
12	Duality theory: Expenditure function	PPT/Lecture		
13	Duality theory: Expenditure function	PPT/Lecture		
14	The indirect utility function	PPT/Lecture		
15	Roy's identity and the Slutsky Equation	PPT/Lecture		
16	Homothetic utility functions	PPT	e-resource	
17	Homothetic utility functions	PPT	e-resource	

18	Household Time Allocation model of Garry S.Becker	PPT/Lecture		
19	Characteristics model of Kelvin Lancaster	Lecture	video	
20	Characteristics model of Kelvin Lancaster	Lecture	video	
21	Revision			
22	Revision			
MODULE II				
23	The St. Petersburg Paradox and Bernoullian Hypothesis	PPT/Lecture		
24	The St. Petersburg Paradox and Bernoullian Hypothesis	PPT/Lecture		
25	Neumann and Morgenstern theory	PPT /Lecture		
26	Expected utility function			
27	Preferences towards risk			
28	Risk averse, risk loving & risk neutral	PPT /Lecture	Video	
29	Risk averse, risk loving & risk neutral	PPT /Lecture		
30	Gambling and insurance	Lecture		
31	Risk aversion and insurance	PPT/Lecture		
32	Friedman and Savage hypothesis	PPT/Lecture	e- resource	
33	Friedman and Savage hypothesis	PPT/Lecture		
34	Markowitz hypothesis	Lecture		
35	Markowitz hypothesis	Lecture		
36	Armstrong's theory of marginal preference	Lecture		
37	Behavioural economics	Lecture		
38	Behavioural economics	Lecture		
39	Behavioural economics	Lecture	Group Discussion	
40	Revision			
41	Revision			
42	Revision			
43	CIA-1			
MODULE III				
44	Homogeneous production function	PPT/Lecture		
45	Non-homogeneous production function	PPT/Lecture		
46	Non-homogeneous production function	PPT/Lecture		
47	Technical progress and production function	PPT/Lecture		
48	Cobb Douglas, CES and VES production function	Lecture	Quiz	
49	Cobb Douglas, CES and VES production function	Lecture	Quiz	
50	VES (Variable Elasticity Substitution)	Lecture		
51	Trans log Production functions and their properties	Lecture	Q & Ans Session	
52	Trans log Production functions and their properties	Lecture	Q & Ans Session	

53	Equilibrium of a single product firm: choice of optimum combination of factors	PPT/Lecture		
54	Equilibrium of a multiproduct firm	PPT/Lecture		
55	Equilibrium of a multiproduct firm	PPT/Lecture	Demo video	
56	Traditional theory of cost	PPT/Lecture		
57	Modern theory of cost	PPT/Lecture		
58	Modern theory of cost	PPT/Lecture		
59	Derivation of cost functions from production functions	Lecture		
60	Engineering cost	PPT/Lecture		
61	Economics of scale and economics of scope	PPT/Lecture		
62	Economics of scale and economics of scope	PPT/Lecture		
63	Learning curve	PPT/Lecture		
64	Empirical evidence on cost	PPT/Lecture		
65	Revision			
66	Revision			
MODULE IV				
67	Nature of the firm	PPT/Lecture		
68	Boundaries of the firm			
69	Boundaries of the firm			
70	Coase theorem		Video	
71	Transaction cost approach of Williamson	PPT/Lecture		
72	Transaction cost approach of Williamson	PPT/Lecture		
73	CIA - II			
74	Team production approach by ArmenAlchian and Harold Demsetz	PPT/Lecture		
75	Team production approach by ArmenAlchian and Harold Demsetz	PPT/Lecture		
76	Markets with asymmetric information	PPT/Lecture		
77	Markets with asymmetric information	PPT/Lecture		
78	Markets with asymmetric information	PPT/Lecture		
79	Market for lemons	PPT/Lecture	Video	
80	Adverse selection- moral hazard	PPT/Lecture		
81	Market signaling	PPT/Lecture		
82	Market signaling	PPT/Lecture		
83	Market signaling	PPT/Lecture		
84	Principal agent problem	Lecture		
85	Principal agent problem	Lecture		
86	Agency theory	Lecture	Group Discussion	
87 - 90	revision			

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	16/08/2016	Analyse consumer decision making under uncertainty and risk.
2	2/09/2016	Network Externalities

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	11/10/2016	The role of insurance and gambling in allocating risk over time (Debate or Group Discussion)

References

- Koutsoyiannis A. (1979), Microeconomic Theory (2nd edition), Macmillan, London (Chapter 2, 3, 4)
- 2. Hal R. Varian- Intermediate microeconomics – A Modern Approach, East-West Press Pvt.Ltd, New Delhi, 2010
- 3. Pindyck and Rubinfeld(2006) Microeconomics, Prentice Hall of India Ltd, New Delhi, (Chapter 4,5,7)

Web resource references:

- <https://www.thoughtco.com/online-microeconomics-textbook-1147732>

COURSE PLAN

PROGRAMME	MASTER OF ECONOMICS	SEMESTER	1
COURSE CODE AND TITLE	16P1ECOT02: MACRO ECONOMICS	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	Dr. K V Raju		

COURSE OBJECTIVES
To evaluate Keynesian Income Expenditure model up to four sectors
To understand the IS-LM model up to four sectors
To understand the concept of consumption and consumption functions and evaluate various consumption theories
To develop an understanding about the concept and types of investment and Compare Keynesian and Post-Keynesian investment theories
To understand the concept and theories of trade cycle
To analyse global recession and its policy implications

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
MODULE I				
1.	Introduction to Keynesian economics	PPT/Lecture		
2.	Keynesian income expenditure model-Introduction	PPT/Lecture		
3.	Keynesian 2 sector model	PPT/Lecture		
4.	Investment multiplier and change in income	PPT/Lecture		
5.	Problem solving session	Lecture/discussion		
6.	Keynesian 3 sector model	PPT/Lecture		
7.	Multipliers –tax multiplier, government expenditure multiplier, balanced budget multiplier	Lecture		
8.	Multipliers –tax multiplier, government expenditure multiplier, balanced budget multiplier	Lecture		
9.	Problem solving session	Lecture/discussion		
10.	Keynesian four sector model-foreign trade multiplier	Lecture		
11.	Keynesian four sector model-foreign trade multiplier	Lecture		

12.	Problem solving session	Lecture/discussion		
13.	IS –LM model-Derivation of IS curve	PPT/Lecture		
14.	IS –LM model-Derivation of LM curve	PPT/Lecture		
15.	General equilibrium	PPT/Lecture		
16.	Keynesian range, intermediate range and classical range	PPT/Lecture		
17.	Effectiveness of Fiscal policy using IS LM model	PPT/Lecture		
18.	Effectiveness of monetary policy using IS LM model	PPT/Lecture		
19.	AD-AS Curves framework with Price and income axis	PPT/Lecture		
20.	AD-AS Curves framework with Price and income axis-discussion	PPT/Lecture		
21.	Mundell-Fleming Open Economy model-Introduction	PPT/Lecture		
22.	Mundell-Fleming Open Economy model	PPT/Lecture		
23.	Effectiveness of monetary and fiscal policy	PPT/Lecture		
24.	Keynes Effect	PPT/Lecture		
25.	Pigou Effect	PPT/Lecture		
26.	External effect	PPT/Lecture		
27.	Ricardian Equivalence	PPT/Lecture		
28.	seminar			
29.	Seminar			
30.	seminar			
MODULE II				
31.	Introduction to consumption	PPT/Lecture		
32.	Consumption function	PPT/Lecture		
33.	Keynesian consumption function	PPT/Lecture		
34.	Kuznet's consumption puzzle	PPT/Lecture		
35.	Fishers model of inter-temporal choice	PPT/Lecture		
36.	Fishers model of inter-temporal choice	PPT/Lecture		
37.	Relative income hypothesis	PPT/Lecture		
38.	Relative income hypothesis	PPT/Lecture		
39.	Permanent income hypothesis	PPT/Lecture		
40.	Permanent income hypothesis	PPT/Lecture		
41.	Life cycle hypothesis	PPT/Lecture		
42.	Life cycle hypothesis	PPT/Lecture		
43.	Policy implications of consumption theories	PPT/Lecture		
44.	Consumption under uncertainty	PPT/Lecture		
45.	Consumption under uncertainty	PPT/Lecture		
46.	Modern approach to consumption	PPT/Lecture		

47.	Modern approach to consumption	PPT/Lecture		
48.	Seminar			
49.	Seminar			
50.	revision			
MODULE III				
51.	Introduction to investment theory	PPT/Lecture		
52.	Investment function	PPT/Lecture		
53.	Neo classical theory of investment	PPT/Lecture		
54.	Neo classical theory of investment	PPT/Lecture		
55.	Keynesian theory of investment	PPT/Lecture		
56.	Keynesian theory of investment	PPT/Lecture		
57.	Post Keynesian theory of investment	PPT/Lecture		
58.	Post Keynesian theory of investment	PPT/Lecture		
59.	Neo-Keynesian Theories of Investment	PPT/Lecture		
60.	Neo-Keynesian Theories of Investment	PPT/Lecture		
61.	Compares Keynesian and post Keynesian theory of investment	PPT/Lecture		
62.	MEC, MEI and accelerator theory	PPT/Lecture		
63.	Tobin's q ratio	PPT/Lecture		
64.	Introduction to labour market	PPT/Lecture		
65.	Classical labour market	PPT/Lecture		
66.	Keynesian labour market	PPT/Lecture		
67.	Search theories	discussion		
68.	DMP model	PPT/Lecture		
69.	Seminar			
70.	Seminar			
MODULE IV				
71.	Introduction to trade cycles	PPT/Lecture		
72.	Multiplier accelerator interactions model	PPT/Lecture		
73.	Multiplier accelerator interactions model	PPT/Lecture		
74.	Samuelson business cycle model	PPT/Lecture		
75.	Samuelson business cycle model	PPT/Lecture		
76.	Hicks business cycle model	PPT/Lecture		
77.	Hicks business cycle model	PPT/Lecture		
78.	Kaldor business cycle model	PPT/Lecture		
79.	Kaldor business cycle model	PPT/Lecture		
80.	William Nordhaus political business cycle	PPT/Lecture		
81.	William Nordhaus political business cycle	PPT/Lecture		
82.	Evaluation of trade cycle theories	PPT/Lecture		

83.	Economic recession 2008-12	PPT/Lecture		
84.	Policy measures	PPT/Lecture		
85.	Seminar	PPT/Lecture		
86.	Seminar	PPT/Lecture		
87.	Seminar	PPT/Lecture		
88.	seminar	PPT/Lecture		
89.	Seminar	PPT/Lecture		
90.	seminar	PPT/Lecture		

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or Non-graded etc)
1	20/07/2016	Mundell Fleming Model
2	15/09/2016	Trade cycle theories

REFERENCES:-

1. Leteris Tsoulfidis: (2010), *Competing Schools of Economic Thought*, Springer, London
2. Gregory Mankiw, N (2010): *Macroeconomics*, 7th Ed, Worth Publishers, Duffield, U.K
3. Kamran Dadkhah (2010): *The Evolution of Macroeconomic Theory and Policy*, Springer, London
3. Brian Snowdon and Howard R.Vane (*Ed*) (2003): *A Macroeconomics Reader*, Routledge, London
4. Brendan Sheehan (2009) *Understanding Keynes' General Theory*, Palgrave, London.
5. Rudiger Dornbusch, Stanley Fisher and Richard Startz (2007) 7th Ed: *Macroeconomics*, TMH, New Delhi
6. Brian Snowdon, Howard Vane and Peter Wynarczyk (2002): *A Modern Guide to Macroeconomics: An Introduction to Competing Schools of Thought*, Aldershot, England.
7. Rosalind Levacic and Alexander Rebmann (2006): *Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies*, MacMillan, New York.
- 8 Richard T. Froyen (2008): *Macroeconomics-Theories and Policies*, Pearson, Singapore.
- 9 Garner Ackley (1989): *Macroeconomics: Theory and Policy*, Collier MacMillan, New York.
- 10 A.J. Westaway and T.G.Weyman Johnes (1978): *Macroeconomics, Theory, Evidence and Policy*, Longman, London.
- 11 James K. Galbrith and William Darity, Jr (1994): *Macroeconomics*-Houghton, Boston, USA.
12. Errol D'Souza (2008): *Macroeconomics*, Pearson, Singapore.
- 13 Andrew B. Abel and Ben S. Bernanke (2010): *Macroeconomics*, Pearson, New Delhi
- 14 Farrokh K. Langdana: (2009): *Macroeconomic Policy: Demystifying Monetary and Fiscal Policy* Second edition, Springer, Langdana, Farookh.
- 15 Olivier Blanchard (2011): *Macroeconomics* 4th Ed-Pearson, Singapore.
16. M G Mueller Ed (1988): *Reading in Macroeconomics*. Surjeet Publications, New Delhi.
17. Samuelson and Nordhaus William.D: *Macroeconomics*, TMH, New Delhi
18. Stanley Bober (1979 and Digital edition 2010): *Economics of Cycles and Growth*, Witley, Orient Blackswan, New Delhi.
19. William. S. Brown (1988): *Macroeconomics*, Prentice Hall International Editions.

COURSE PLAN

PROGRAMME	MASTER OF ARTS - ECONOMICS	SEMESTER	1
COURSE CODE AND TITLE	16P1ECOT03 – INDIAN ECONOMY: ISSUES AND POLICIES – I	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	Dr. Siby Abraham, Anaida Ann Jacob		

Course Objectives

To understand economic growth of the country and to analyze the contribution of each sectors to income output and employment.

To understand the nature of economic planning, reforms initiatives and the significance of NITI Aayog in Indian economy.

To understand the importance of agriculture in Indian economy and evaluate the role of the agrarian sector in the international trade.

To identify the role of industries in accelerating economic growth and to analyze the trends in industrial productivity.

To understand the role played by service sector in employment generation and economic development.

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
MODULE I				
1	Data base of the Indian economy	PPT		
2	Economic growth in the post-independence era	PPT/Lecture	Quiz	
2	Indian Economy – emerging structure	PPT/Lecture		
2	Contribution of different sectors to output, employment and income	PPT/Lecture		
2	Growth across regions, state	PPT/Lecture		
2	National Income – meaning, concepts	PPT/Lecture		
2	Methodological issues in NI estimation	Lecture	Video	
1	Saving & investment – trend and pattern	Lecture		
1	Role of institutions in India's economic progress	Lecture		
1	State vs markets	PPT/Lecture		
4	Planning – objectives, strategies	Lecture		
2	NITI Aayog: role, functions	Lecture		
4	Economic Reforms in the early 90s: LPG	Lecture	Quiz	
1	Second Generation Economic Reforms	Lecture		
1	Inclusive growth, recent policy initiatives	PPT/Lecture		
2	India in a globalized world	PPT/Lecture		
1	Revision	Lecture		
1	Question paper discussion	PPT/Lecture		
3	Seminar sessions			

MODULE II				
2	Performance of agriculture since independence, across crops and zones	PPT/Lecture		
1	Farm Size and Productivity	Lecture		
2	Agriculture inputs, Technological Change in Agriculture.	Lecture		
2	New agricultural policy, Sustenance of Agriculture Growth	Lecture		
2	Agriculture Finance, Credit, Role of Co-operatives	PPT/Lecture	Video	
2	Agriculture Marketing, Pricing	PPT/Lecture		
1	WTO, Impact on Agriculture	PPT/Lecture		
2	Agrarian Crisis- Food Security	PPT/Lecture		
2	Terms of Trade between agriculture & industry.	Lecture		
1	CIA - 1			
1	Revision	PPT		
2	Seminar session	PPT		
MODULE III				
1	Growth and pattern of industrial development	PPT/Lecture		
2	Industrial stagnation – old and new debates	PPT/Lecture		
2	Industrial productivity	PPT/Lecture	Quiz	
2	Industrial financing	Lecture		
2	Industrial policies	Lecture		
2	Privatization and disinvestment	PPT/Lecture	Video	
2	Cottage & small-scale industries	PPT/Lecture		
1	Globalization & technology transfer	Lecture		
1	Special economic zones	Lecture		
2	CIA - II	PPT/Lecture		
1	Question paper discussion	Lecture		
2	Seminar sessions	PPT/Lecture		
MODULE - IV				
2	Sources of service sector growth	Lecture		
3	Infrastructure, physical and social: status and policies	PPT		
2	Transport, Energy & Telecommunication	Lecture	Video	
2	Technology, Information Technology	Lecture		
1	Research & development	PPT/Lecture		
2	Health and education	PPT/Lecture		
2	Seminar sessions	Lecture		
1	Revision	PPT/Lecture		
Total = 90 sessions				

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or non-graded etc)
1	06/10/2016	National Income Concepts: Definition, Methods, Limitations
2	27/09/2016	Trends in Agricultural Productivity in India Since Independence.

GROUP ASSIGNMENTS/ACTIVITES – Details & Guidelines

	Date of completion	Topic of Assignment & Nature of assignment (Individual/Group – Written/Presentation – Graded or non-graded etc)
1	10/10/2016	Status of Economic and Social Infrastructure in India

References

1. Acharya Shanker, Mohan Rakesh (Eds) (2011): India's Economy: Performance and Challenges- Oxford University Press, New Delhi.
2. Agarwal A N (2016), Indian Economy: Problems of Development and Planning, Vikas Publishing House, New Delhi.
3. Ahluwalia Isher Judge (1985): 'Industrial Growth in India: Stagnation Since the Mid-Sixties'. Oxford University Press, New Delhi.
4. Ahulwaia, J.J. and I.M.D. Little (Eds.) (1999) India's Economic Reforms and Development (Essays in hon/ of Manmohan Singh) Oxford University Press, New Delhi.
5. C. P. Chandrasekhar, Jandhyala B. G. Tilak (2001) India's Socio-economic Database: Surveys of Selected Areas, Tulika Print Communication.
6. Chakravarty S, (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi.
7. Arvind Panagariya, (2008) India: The Emerging Giant, Oxford University Press, USA
8. Datt. R. (2001), Second Generation Economic Reforms in India, Deep and Deep Publications, New Delhi
9. Gaurav Datt & Ashwini Mahajan, (2013) Indian Economy, 70th edition, S Chand Publishers, New Delhi.
10. Deepak Nayyar (2013) Catch Up: Developing Countries in the World Economy, Oxford University Press, United Kingdom
11. Basu Kausihik, Martens Annemie (Eds) (2011) the New Oxford Companion to Economics in India, Oxford University Press, New Delhi

COURSE PLAN

PROGRAMME	MA ECONOMICS	SEMESTER	1
COURSE CODE AND TITLE	16P1ECOT04: ECONOMICS OF DEVELOPMENT AND GROWTH- I	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	VINIL K V, SIBY ABRAHAM		

COURSE OBJECTIVES
To develop conceptual clarity on the various dimensions of development
To enable the student to evolve new strategies for achieving sustainable development and inclusive growth
To examine the factors which perpetuate underdevelopment in the developing countries
To critically evaluate alternative theories of growth
To examine the interdependence between population and development in an economy.

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
Module I				
1-2	Economic Development and Economic Growth	Lecture	Online resource	
3-4	Perpetuation of underdevelopment- vicious circle of poverty	PPT/Lecture	Research article	
5-6	Sustainable development	PPT/Lecture		
7	Current trends in Development Economics	Lecture		
8-10	International interdependence and globalization	PPT/Lecture	Online resource	
11-12	Dimensions of development gap	Lecture		
13	Human Development Index			
14	Human Poverty Index, Multi-dimensional Poverty Index			
15	Gender related Development Indices			
16	Capability and Entitlement approach- Development as freedom			
17	Basic needs approach.			
Module II				
18	Sector thesis	Lecture		
19-20	Rostow's stages of growth	PPT/Lecture		
21-22	Kaldor's growth laws	PPT/Lecture	Online resource	
23-24	Cumulative causation	PPT/Lecture	Research article	
25-26	International inequality	PPT/Lecture	Research article	

27-28	Centre-periphery thesis	PPT/Lecture		
29-30	Measures of Poverty and inequality.			
31	CIA I			
Module III				
32-33	Classical theories of Development	Lecture	Online resource	
34-35	Keynesian theory of development	Lecture	Research article	
36-38	Marxian Theory of development	Lecture	Online resource	
39-40	Schumpeter's Theory on development	Lecture	Research article	
Module IV				
41-43	Human capital and development	Lecture		
49-50	Population Growth and development	Lecture	Research article	
51-52	The concept of optimum population	Lecture	Online resource	
53-54	Education and investment in human capital	Lecture	Online resource	
55-56	Gender gap in development	Lecture	Research article	
57-58	Development of social and economic infrastructure	Lecture		
59-61	Strategies for improving education and employment	Lecture		
62-65	Social engineering and inclusive growth	Lecture	Research article	
66	CIA II			
67-72	Seminars			

INDIVIDUAL ASSIGNMENTS

	Topic of Assignment
1	Analyse the situation of poverty and inequality in India..
2	Examine the situation of demographic dividend in India. Suggest to measures to capture the benefits of demographic dividend.

References

1. Ray Debraj : Development Economics, Oxford, University Press 1999
2. Meier M. Gerald and Rauch: Leading issues in Economic Development Oxford University Press.(2000)
3. Thirlwall. A: Growth and Development with special Reference to developing economies Palgrave Macmillan (2009)
4. 4. Todaro M.P. D. Smith S.C : Economic development (8th Edition Person Education, Indian branch, Delhi
5. Todaro M.P.: Economic development in the third World. (4th Edition 1991) Longman, Singapore.

COURSE PLAN

PROGRAMME	MA ECONOMICS	SEMESTER	1
COURSE CODE AND TITLE	16P1ECOT05 : QUANTITATIVE TOOLS FOR ECONOMIC ANALYSIS	CREDIT	4
HOURS/WEEK	5	HOURS/SEM	90
FACULTY NAME	Dr.Lakshmipriya R		

COURSE OBJECTIVES
To understand Vectors, Matrices and their applications in Economics
To know about sets, functions and continuity, sequence, series, Limit of a function, Derivative of a function, Rules of differentiation, Difference and Differential equations with Applications.
To know Lagrange multiplier method. Marginal rate of substitution.Homogeneous functions,Euler's theorem and its applications in economics.Cobb Douglas production function.
To know about Integral calculus
To know about Input –Output analysis.

SESSION	TOPIC	LEARNING RESOURCES	VALUE ADDITIONS	REMARKS
1	Bridge course (1)	PPT	video	
2	Introduction to Matrices	PPT/Lecture		
3	Different types of matrices and their properties	PPT/Lecture		
4	Problems	PPT/Lecture	e-resource	
5	Mathematical Operations on matrices	PPT/Lecture		
6	Mathematical Operations on matrices	PPT/Lecture		
7	Problems	Lecture		
8	Determinants of a matrix and problems	Lecture		
9	Minors and cofactors of a matrix	Lecture		
10	Inverse of a matrix and problems	Lecture		
11	Rank of a matrix	PPT/Lecture		
12	Problems	PPT/Lecture		
13	Solution of system of equations using invers matrix method and problems	PPT/Lecture		
14	Crammer's rule			

	Problems			
15	Introduction to differentiation	PPT/Lecture		
16	Application of differentiation in Economic theory	Lecture		
17	Problems	Lecture		
18	Price elasticity of demand	Lecture		
19	Problems	Lecture		
20	Relationship between MR, AR and Elasticity of demand	PPT/Lecture		
21	AC, MC and Elasticity of demand	PPT/Lecture		
22	Problems	PPT/Lecture		
23	Marginal propensity to consume and save	PPT/Lecture		
24	Maximum and minimum of a function	Lecture		
25	Questions	Lecture		
26	Partial derivatives			
27	Problems	Lecture		
28	Higher order partial derivatives and examples	Lecture		
29	Marginal utility	PPT/Lecture		
30	Marginal Productivity	PPT/Lecture		
31	Partial elasticity	PPT/Lecture		
32	Marginal rate of substitution			
	Problems			
33	Lagrange's Method	PPT/Lecture		
34	Homogeneous function	PPT/Lecture		
35	Cobb – Douglas production function	PPT/Lecture		
36	Integration Introduction	Lecture	Quiz	
37	Fundamental rules of integration	Lecture	Q & Ans Session	
38	Standard integration problems	PPT/Lecture		
39	Method of substitution	PPT/Lecture		
40	Problems	PPT/Lecture		
41	Integration by method of parts	PPT/Lecture		
42	Problems	Lecture		
43	Integration by partial fractions	PPT/Lecture		
44	Problems	PPT/Lecture		
45	Definite integrals	PPT/Lecture		
46	Problems	PPT/Lecture		
47	Application of integration in Economics	PPT/Lecture		
48	Derivation of TR function from MR function	PPT/Lecture		

49	Problems	PPT/Lecture		
50	Derivation of TC function from MC function	PPT/Lecture		
51	Problems	PPT/Lecture		
52	Estimation of consumer's surplus	PPT/Lecture	Video	
53	Estimation of producer'	PPT/Lecture		
54	Problems	PPT/Lecture		
55	Trapezoidal rule , Problem			
	Simpson's one third rule , Problem			
56	Introduction to Linear Programming problem	Lecture	Debate	
57	Graphical method for solving LPP	PPT/Lecture		
58	Questions	PPT/Lecture		
59	Simplex method	PPT/Lecture		
60	Problem solving	PPT/Lecture		
61	Dual , Duality theorem	PPT/Lecture		
62	Input Output Analysis	PPT/Lecture		
63 – 90	Revision			

INDIVIDUAL ASSIGNMENTS/SEMINAR – Details & Guidelines

Sl. No	Module	Topic	Nature of Assignment
1	1	Problems on Matrices	Moodle
2	2,3	Problems based on differential and integral calculus	written
3	4	Problems based on Linear programming problems	written
4		Question paper answering	written

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- Henderson, J. M and R .E Quant : Micro Economic Theory: A Mathematical Approach , 3rd edition, McGraw Hill , New York , 1980
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- Geoff Renshaw : Maths for Economics, 2nd Edition , Oxford university Press 2009
- P K Gupta, Manmohan and Kanti Swarup : Operations Research , S Chand and Company