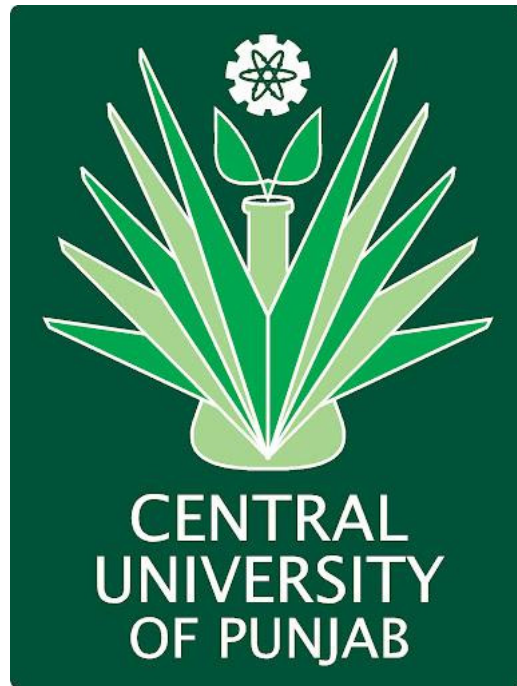


CENTRAL UNIVERSITY OF PUNJAB



M.A. Economics

Batch – 2023-25

Department of Economic Studies

School of Social Sciences

Graduate Attributes

The graduates of M.A. Economics programme through their value embedded conduct, enthusiastic mindset, insightful critical thinking, keen observation, and strong analytical skills would be able to:

- Critically appraise the existing state of knowledge,
- Significantly comprehend the current state of events across the world,
- Efficiently evaluate and put forward the policies, strategies and programmes for the benefits of the society at large, and
- Appropriately provide solutions to the persistent socio-economic problems at micro and macro levels.

Programme Learning Outcomes

At the end of the M.A. Economics Programme, the learners will be intelligent economic thinkers of socio-economic values, critical and strategic analysers of traditional knowledge systems in the present context, ethical and impactful researchers, economists, and policy makers.

Multiple Entry and Exit

1. Entry/Admission into the 2-year M.A. Economics programme, shall be made twice during the entire duration of study – once at the beginning of the 1st semester and then, at the beginning of the 3rd semester.
2. For entry/Admission at the beginning of the 1st semester of 2-year M.A. Economics programme shall be as per the university rule.
3. For entry/Admission at the beginning of the 3rd semester of 2-year M.A. Economics programme shall be called lateral entry. For such entry, students having successfully passed 1-year Post-Graduate Diploma in Economics or its relevant/allied subjects with at least 55% marks or equivalent CGPA (5% relaxation for SC, ST, OBC, PwD candidates) from recognized Indian/Foreign Universities/Institutions etc. shall be eligible. This entry/admission decision shall be based on the earned credits (36-40 credits in PG Diploma) and proficiency test records.
4. The curriculum structure of the 2-year M.A. Economics programme has been designed by synchronizing discipline specific core and elective courses, interdisciplinary courses, ability and skill enhancing courses such that student(s) wishing to exit the programme after successful completion of 1st year can be awarded Post-Graduate Diploma in Economics by the university. At this exit point, these students shall have the ability and skill to take up employment/self-employment opportunities in data analysis, model building and estimation, decision making etc.

SEMESTER-I

Course Code	Course Title	Course Type	L	T	P	Credit
ECO.506	Microeconomics – I	Core	4	0	0	4
ECO.507	Macroeconomics – I	Core	4	0	0	4
ECO.508	Mathematical Methods for Economics	SEC	4	0	0	4
ECO.509	International Economics	Core	4	0	0	4
ECO.510	Entrepreneurship, Innovation and Skill Development	AEC	2	0	0	2
XXX. ###	<i>Students to choose a course from the list of elective courses given below</i>	Elective	3	0	0	3
Total			21	0	0	21
<i>Two Hours of Remedial Classes shall be offered per week</i>						
List of Discipline Electives (select any one of the following)						
ECO.511	Agricultural Economics	Elective	3	0	0	3
ECO.512	Industrial Economics	Elective	3	0	0	3
ECO.513	Gender Economics	Elective	3	0	0	3
ECO.514	Financial Institutions and Markets	Elective	3	0	0	3
ECO.515	Political Economy of Development	Elective	3	0	0	3
ECO. 516	Economics of Education	Elective	3	0	0	3

Note: Electives shall be offered by the department depending upon the infrastructure and expertise available in a particular semester and decision of the department shall be final and binding to the students. AEC: Ability Enhancing Course; SEC: Skill Enhancing Course

SEMESTER-II

Course Code	Course Title	Course Type	L	T	P	Credit
ECO.521	Microeconomics – II	Core	4	0	0	4
ECO.522	Macroeconomics – II	Core	4	0	0	4
ECO.523	Statistical Methods for Economics	SEC	4	0	0	4
ECO.524	Basic Econometrics	SEC	4	0	0	4
XXX. ###	<i>Students to choose a course from the list of elective courses given below</i>	Elective	3	0	0	3
XXX. ###	<i>Interdisciplinary Elective (Students to choose a course offered by other Departments in the University)</i>	IDC	2	0	0	2
	Total		21	0	0	21
Two Hours of Remedial Classes shall be offered per week						
List of Discipline Electives (Select any one of the following)						
ECO.525	Money and Banking	Elective	3	0	0	3
ECO.526	Innovation and Entrepreneurship	Elective	3	0	0	3
ECO.527	Social Survey Methods	Elective	3	0	0	3
ECO.528	Rural Development and Policies	Elective	3	0	0	3
ECO.529	Economics of Innovation	Elective	3	0	0	3
ECO.530	International Trade and Investment	Elective	3	0	0	3
ECO.531	Economics of Infrastructure	Elective	3	0	0	3
Interdisciplinary courses (for students of other Departments)						
ECO.532	Foundations of Economics	IDC	2	0	0	2
ECO.533	Introduction to Indian Economy	IDC	2	0	0	2
ECO. 534	Agricultural Development and Management	IDC	2	0	0	2
ECO.535	Indian Economic Thought	IDC	2	0	0	2

Note: Electives shall be offered by the department depending upon the infrastructure and expertise available in a particular semester and decision of the department shall be final and binding to the students; SEC: Skill Enhancing Course

SEMESTER-III

Course Code	Course Title	Course Type	L	T	P	Credit
ECO.551	Economics of Growth and Development	Core	4	0	0	4
ECO.552	Indian Economy	Core	4	0	0	4
ECO.553	Research Methodology in Economics	AEC	4	0	0	4
ECO.600	Dissertation Part-I	SEC	0	0	0	4
XXX. ###	<i>Students to choose a course from the list of elective courses given below</i>	Elective	3	0	0	3
XXX. ###	<i>Students to choose a course from the value based courses offered in the University</i>	VAC	2	0	0	2
	Total		21	0	0	21
Two Hours of Remedial Classes shall be offered per week						
List of Discipline Electives (select any one of the following)						
ECO.554	Punjab Economy	Elective	3	0	0	3
ECO.555	Environmental Economics and Policy	Elective	3	0	0	3
ECO.556	Public Economics	Elective	3	0	0	3
ECO.557	Globalization and Development	Elective	3	0	0	3
ECO.558	Demography	Elective	3	0	0	3
ECO.559	Advanced Econometrics	Elective	3	0	0	3
ECO. 560	Economics of Healthcare: Theory & Policy	Elective	3	0	0	3
ECO.561	Managerial Economics	Elective	3	0	0	3
List of Value Added Courses						
ECO.562	Data Analysis Using SPSS	VAC	2	0	0	2
ECO.563	Decision Making Skills	VAC	2	0	0	2
ECO. 564	Data for Research in Economics	VAC	2	0	0	2
ECO.565	Data Analysis Using STATA	VAC	2	0	0	2
ECO.566	Cost-Benefit Analysis	VAC	2	0	0	2

Note: Electives shall be offered by the department depending upon the infrastructure and expertise available in a particular semester and decision of the department shall be final and binding to the students. AEC: Ability Enhancing Courses; SEC: Skill Enhancing Courses; VAC: Value Added Courses

SEMESTER-IV

Course Code	Course Title	Course Type	L	T	P	Credit
ECO.600	Dissertation Part - II	SEC	0	0	0	20

Note: SEC: Skill Enhancing Course

Evaluation Pattern of Courses

Department follows outcome based education in all its teaching-learning and evaluation process in line with the recommendations of NEP-2020.

Core and Discipline specific elective courses			IDC, VAC, AEC	
Pattern	Marks	Type	Marks	Type
Internal Assessment	25	Quiz, short-answer type, assignment etc.	-	-
Mid-semester test (MST)	25	Short-type and Essay type	50	Objective & descriptive types
End-semester Exam. (ESE)	50	Objective type (30%) Descriptive type (70%)	50	Objective & descriptive types

Note:

- (i) the objective type evaluation shall include MCQs, one-word/one-sentence answers etc. The number of questions and weightage of each question shall be decided by the teacher; and
- (ii) the descriptive type evaluation shall include short answer and essay types of questions. The number of questions and weightage to each question shall be decided by the teacher.

SEMESTER – I

Course Name: Microeconomics - I

Course Code: ECO.506

L	T	P	Credit
4	0	0	4

Course Learning Outcomes (CLO):

On completion of this course, learners will be able to:

- CLO1: Accrue knowledge on basics of consumers optimization behaviour
- CLO2: Understand theories of production & cost, and producer's optimization process
- CLO3: Distinguish between two extreme forms of market and their price determination process
- CLO4: Familiar with a few recent market models and output & pricing behaviour of firms

Units/Hours	Contents	Mapping with CLO
I 15 Hours	<p>Theory of Consumer Behaviour: Basic concepts and mathematical notations: Income-leisure hypothesis; Linear expenditure system, Separable and Additive utility functions, Homogeneous and Homothetic utility functions; Indirect utility functions and Duality theorem; The Lump Sum Principle; The revealed Preference Approach: WARP and SARP; Fair Games and Expected Utility Hypothesis ; Measuring Risk Aversion; The Portfolio Problem; The State-Preference approach to Choice under Uncertainty; Economics of Information. A complete understanding of basics and advanced theory of consumer behaviour.</p>	CLO1
	<p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers</p>	
II 15 Hours	<p>Theory of Production and Costs: Properties of homogeneous production functions (CD and CES production functions); Optimizing Behaviour and derivation of input demand functions, Duality in Production; Production under Uncertainty; Concepts of Costs: Traditional Cost Theories: Short-run and Long-run Costs, Envelope curve; Modern theory of Costs: Short-run and Long-run, Saucer shape, L-shaped scale curve; Engineering cost (j-shaped) curves. The process of inputs utilization for maximizing output with minimum costs in both short and long run.</p>	CLO2
	<p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers</p>	
III 15 Hours	<p>Price-Output under Perfect Competition and Monopoly: Perfect Competition: Short-run and Long-run Equilibrium with Mathematical Derivation; Supply curves of the Firm and Industry; Dynamic Changes and Industry Equilibrium. Monopoly: Short-run and Long-run Equilibrium; Predictions in Dynamic Changes, Multi-plant Monopolist; Regulated Monopoly (Taxation, and Price Regulation); Govt. regulated Monopoly; Discriminating Monopoly. Comparison Competitive and Monopoly firms and Excess capacity. The behaviour of producers as a price taker and price maker in the market.</p>	CLO3
	<p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers</p>	
IV 15 Hours	<p>Price-Output under Monopolistic Competition and Oligopoly: Monopolistic Competitive Market: Product differentiation and Demand curve; Industry and Group; Chamberlin's model: with entry and price competitions and equilibrium of firms; Comparing Perfect Competitive and Monopolistic Competitive Markets; Concept of Excess capacity; Non-collusive Oligopoly: Cournot's model, Bertrand's model, Chamberlin's model, Stackelberg's model and Kinked demand</p>	CLO4

	Model of oligopoly. The behaviour of producers as a profit maximizer under the scenario of product differentiation and selling cost competitions, Monospsony and Oligopsony.	
	Learning Activities: Lectures, Problem solving, Assignments, Term Papers, Case studies	

Transaction Mode: Class Lecture, Blended Learning, Discussion & Demonstration, and Case Studies.

Suggested Readings:

1. Snyder, C. and W. Nicholson. (2010). *Fundamentals of Microeconomics*, 10th Edition, Cengage Learning-New Delhi.
2. Jehle, G. A. And P. J. Reny. (2011). *Advanced Microeconomic Theory*, 3rd Edition, Pearson-New Delhi.
3. Henderson, J.M., and Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. 3rd Edition, Tata McGraw Hill, New Delhi.
4. Pindyck, R.S. D.L. Rubbinfeld, P.L Mehta. (2009). *Microeconomics*, 7th Edition, Pearson, New Delhi.
5. Koutsoyiannis, A. (1979). *Modern Microeconomics* (2nd edition). Macmillan Press, London.
6. Varian, H. (2010). *Intermediate Microeconomic*. 8th Edition New York: W.W Norton.
7. Varian, H. (1992). *Microeconomic Analysis*. 3rd Edition New York: W.W Norton.
8. Mankiw, N. G. (2009). *Principles of Microeconomics*. 5th Edition. South-Western, Cengage Learning, USA.
9. Samuelson, P.A. and Nordhaus, W.O. (1998). *Economics* (16th Edition). New Delhi: Tata McGraw Hill.
10. Stigler, G. (1996). *Theory of Price* (4th Edition). New Delhi: Prentice Hall of India.
11. Robinson Joan (1969), *The Economics of Imperfect Competition* (2nd Edition), Palgrave Macmillan, UK.

Web links:

1. <https://durhamtech.libguides.com/microeconomics/web>
2. <https://lumenlearning.com/courses/microeconomics/>
3. <https://www.edx.org/learn/microeconomics>

Course Name: Macroeconomics - I

Course Code: ECO.507

L	T	P	Credit
4	0	0	4

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: Estimate the national income of a country,
- CLO2: Assess the validity of classical and Keynesian macroeconomic theories,
- CLO3: Apply the theories of consumption in decision making,
- CLO4: Formulate and model investment function,
- CLO5: Evaluate and apply the theories of investment in decision making,
- CLO6: Apply the models of macroeconomic disequilibrium to eliminate them.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	National Income and Its Measurement: Basic Concepts, Measurement of National Income and Difficulties; Social Accounting and its significance, System of National Accounts; Measurement of national Income in India.	CLO1
	Theories of Income Determination: Classical Theory of Income and Employment; Keynes' Theory of Income Determination in two sector, three sector and four sector models; Investment Multiplier, and Balanced Budget Multiplier.	CLO2

	Learning Activities: Brain-storming and Problem Solving	
II 15 Hours	Theories of Consumption Function: Keynes' Psychological Consumption; Empirical Evidence on Short-run and Long-run Consumption Functions; Consumption Puzzle; Income-Consumption Relationship – Absolute Income, Relative Income, Permanent Income and Life Cycle Hypotheses;	CLO3
	Consumption decision under Uncertainty – The Random-Walk Hypothesis.	CLO4
	Learning Activities: Peer discussion, real world application, brain storming and Problem Solving.	
III 15 Hours	Investment Function: Concepts of NPV and IRR; Determinants of Investment – Marginal Efficiency of Capital and Rate of Interest; Marginal Efficiency of Investment and Level of Investment;	CLO4
	Theories of Investment: Keynesian Theory of Investment Decisions, Profits and Accelerator Theories of Investment; Lags in Investment, Tobin's q Theory of Investment.	CLO5
	Learning Activities: Modelling and scaffolding, Brain storming and problem solving	
IV 15 Hours	Disequilibrium Macroeconomics: Features of Disequilibrium Economics; Disequilibrium Models of Clower, Barro-Grossman, Malinvaud and Benassy.	CLO6
	Learning Activities: Modelling and scaffolding, brain storming and problem solving	

Transaction Mode: Lecture, case study, blended learning, problem solving, discussion & demonstration, self-study.

Suggested Readings:

1. Acemoglu, D. (2016). *Macroeconomics*, New Delhi, Pearson education India.
2. Blanchard, O. (2012). *Macroeconomics*. (4th edition), New Delhi, Pearson Education.
3. Branson, W. H. (2014). *Macroeconomics: Theory and policy*, (3rd edition), New Delhi, East-West press Pvt. Ltd.
4. Dornbusch, R.; Fisher, S. and Startz, R. (2015). *Macroeconomics*, (11th edition), New Delhi, Tata McGraw hill education India Pvt. Ltd.
5. Froyen, R. T. (2012). *Macroeconomics: theories and policies*. (8th edition), New Delhi, Pearson Education.
6. Fuller, Neil (2008). *Principles of macroeconomics*, Delhi, Overseas Press.
7. Gordon, R. J. (2015). *Macroeconomics*, (12th edition), New Delhi Pearson education India Pvt. Ltd.
8. Mankiw, N. G. (2011). *Macroeconomics*, 6th edition, New York, Worth publishers.
9. McConnell, C. R., and Gupta, H. C. (2012). *Introduction to Macroeconomics*. Tata McGraw-Hill Publishing Company.
10. Romer, D. (2012). *Advanced Macroeconomics*, (4th edition), McGraw-Hill.
11. Shapiro, Edward. (2015). *Macroeconomic analysis*, (5th edition), New Delhi, Galgotia publication Pvt. Ltd.

Course Name: Mathematical Methods for Economics

Course Code: ECO.508

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Formulate and optimize economic functions
- CLO2: Find the time path of changes in economic variables,
- CLO3: Deal with economic variables in larger dimensions, and
- CLO4: Apply linear programming for best allocation of economic resources.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	<p>Introduction: The nature of mathematical economics – Mathematical vs. Non-mathematical economics, Mathematical economics vs. Econometrics; Mathematical Models – Ingredients of a mathematical model, the real number system, the concept of sets, relations and functions, types of functions, functions of two or more independent variables, and levels of generality.</p> <p>Static Analysis: Equilibrium analysis in economics – linear partial market equilibrium model, non-linear partial market equilibrium model, general market equilibrium, equilibrium in national income analysis; Linear Models and Matrix Algebra - concept of Matrices and Vectors, Matrix operations, properties of determinants, rank and inverse of matrix; System of linear equations, Solution by Cramer’ rule and matrix inverse method, Linear independence and dependence of vectors, characteristic roots and vectors, quadratic forms, Application to market and national income models; Leontief Input-Output models; Limitations of Static Analysis.</p> <p>Skill Enhancement Activities: Creative thinking and Model Building, Problem Solving, Interpretation and Decision making</p>	CLO1
II 15 Hours	<p>Comparative-Static Analysis: The nature of comparative-statics, concept of limit and continuity, rate of change and the derivative, Differentiation of algebraic, exponential, logarithmic, trigonometric, and implicit functions; applications of exponential and logarithmic derivatives, Partial Differentiations, Euler’s theorem and total differentials; Applications to comparative-static analysis, Concept of Jacobian determinants, comparative statics of general function models, Limitations of comparative-statics.</p> <p>Optimization: Optimization – a special variety of equilibrium analysis, Maxima and minima of functions of one independent variable, and Maxima and minima of functions of two independent variables with and without constraints; Economic applications, comparative-static aspects of optimization.</p> <p>Skill Enhancement Activities: Creative thinking and Model Building, Problem Solving, Interpretation and Decision making</p>	CLO2
III 15 Hours	<p>Dynamic Analysis: Economic dynamics and integral calculus – indefinite and definite integrals, improper integrals, economic applications of integrals, Domar Growth model; Differential Equations – first-order linear differential equations, second-order linear differential equations, dynamics of market price, Solow growth model, market model with price expectations, the interaction of inflation and unemployment; Difference Equations – first-order linear difference equations, dynamic stability of equilibrium, the Cobweb model, market model with inventory, second-order linear difference equations,</p>	CLO3

	Samuelson Multiplier-Acceleration Interaction Model, Inflation and unemployment in discrete time.	
	Skill Enhancement Activities: Creative thinking and Model Building, Problem Solving, Interpretation and Decision making	
IV 15 Hours	Mathematical Programming and Game Theory: Linear Programming - Formulation and solution of linear programming problems, simplex and graphical methods, Concept of Duality, Economic interpretation of duality; Non-Linear Programming – the nature of non-linear programming, Kuhn-Tucker conditions, economic applications and limitations of mathematical programming; Game Theory – basic concepts, rule of dominance, Nash equilibrium, Mixed strategies, Zero-sum games and computation, Economic Applications.	CLO4
	Skill Enhancement Activities: Creative thinking and Model Building, Problem Solving, Interpretation and Decision making	

Transaction Mode: Lecture, discussion & demonstration, Problem Solving, Peer and blended learning.

Suggested Readings:

1. Allen, R.G.D. (2016). *Mathematical Analysis for Economics*, New Delhi, Trinity press.
2. Asano, Akhito. (2013). *An Introduction to Mathematics for Economics*. New Delhi, Cambridge university press.
3. Chiang, Alpha C. and Wainwright, Kevin. (2013). *Fundamentals Methods of Mathematical Economics* (4th edition), New Delhi, Tata McGraw Hill education.
4. Harrison, Michael, and Waldron, Patrick. (2011). *Mathematics for Economics and Finance*, London, Routledge.
5. Hoy, Michael, Livernois, J., Mckenna, C., Rees, R., and Stengos, R. (2014). *Mathematics for Economics*, (3rd edition), New Delhi, PHI learning, Pvt. Ltd.
6. Pemberton, Malcolm. (2017). *Mathematics for Economics: An Introductory Textbook*, New Delhi, Viva books Pvt. Ltd.
7. Sydsaeter, K., and Hammond, P. (2008). *Essential Mathematics for Economic Analysis*. New Delhi: Pearson Education.
8. Vali, Shapoor. (2014). *Principles of Mathematical Economics*, U.S.A., Atlantic press.
9. Wang, Susheng. (2015). *Mathematical Economics*, 2nd edition, New Jersey, World scientific.
10. Yamane, T. (2012). *Mathematics for Economists*. Literary Licensing, LLC.

Course Name: International Economics

Course Code: ECO.509

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Explain the various concepts and approaches used in international Economics,
- CLO2: Identify the various problems emerged in international trade,
- CLO3: Distinguish the various approaches in Balance of payments,
- CLO4: Analyze the previous and existing pattern of globalization.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Theories of International Trade: Absolute Advantage, Comparative Advantage and Opportunity Costs, Heckscher-Ohlin Theory of Trade; Factor Price equalization; Empirical testing of Heckscher Ohlin Theory, New approaches to trade theory: The Product Cycle Theory, Technology	CLO1

	Gap Theory; Causes of Emergence and Measurement of Intra-industry Trade. Analysis of various views on causes of trade. Learning Activities: Brain-storming and Problem Solving	
II 15 Hours	Terms of Trade: Concepts and Measurement; Prebisch and Singer views on terms of trade; Theory of Tariff; Regionalism and Multilateralism; Political Economy of Non-tariff barriers; Various forms of Economic Integration; Questioning the benefits of economic integration: Brexit. EU after Brexit. Peer reviews of different types of regional trade agreements. Learning Activities: Brain-storming and Problem Solving	CLO2
III 15 Hours	Balance of Payments and Adjustments: Concepts and components; Causes of disequilibrium and different approaches: Traditional, Absorption and monetary approach, Process of adjustment in the balance of payment under Gold Standard, Fixed Exchange Rate and Flexible Exchange Rates; Theory of foreign exchange market, exchange trading, arbitrage and market hedging; Foreign trade multiplier; Macroeconomic Crisis and exchange rate. Revisiting the concepts of exchange rate and Balance of payments. Learning Activities: Brain-storming and Problem Solving	CLO3
IV 15 Hours	Collapse of Bretton woods system and emergence of international monetary system (IMF and World Bank): World Trading System, WTO and its impact on different sectors, Globalization: Discontents, Issues for Developing Countries, Emergence of Global value chain, Issues on Trade in Services (GATS), Trade Negotiations under the WTO: A Historical View, Changing pattern of Trade; Agreement on Agriculture and Doha Round Pattern of Trade during Pandemics. Role of MNCs. The United States in the world economy, Impact of Various Crisis on Trade : Financial Crisis, COVID-19, Russia -Ukraine Crisis, Peer reviews of various role of various international agencies. Learning Activities: Brain-storming and Problem Solving	CLO4

Transaction Mode: Lecture, case study, problem solving, group discussion & demonstration, self-study, blended learning.

Suggested Readings:

1. Bhagwati, J. N. (1998). *International Trade: Selected Readings*. London: McMillan University Press.
2. Copeland, L. (2014). *Exchange Rates and International Finance*. Harlow: Prentice Hall, 2014. Sixth edition [ISBN 978-0273786047].
3. Feenstra, R. (2004). *Advanced International Trade*. Princeton University Press.
4. Francis, C. (2008), *International Economics*, McGraw-Hill Education.
5. Gopinath, G., Helpman, E. And Rogoff, K. (2014). *Handbook of International Economics*, North Holland Publications.
6. James C. and Robert, M. (2004). *International Economics*, John Wiley & Sons. Inc.
7. Jones, R. W. and Kenen, P. B. (2003). *Handbook of International Economics*. (Volume I, II and III). Amsterdam: Elsevier.
8. Kofman, E., and Youngs, G. (2001). *Globalisation: Theory and Practice (2nd Ed.)*. London: Pinter.
9. Krugman, P. R. and Obstfeld, M. (2000). *International Economics: Theory and Policy*, Dorling Kindersley (India) Pvt. Ltd.
10. Krugman, P., M. Obstfeld and M. Melitz (2014). *International Economics: Theory and Policy*. Boston, Mass.; London: Pearson/Addison-Wesley. Pearson global edition; tenth edition [ISBN 9781292019550].

11. Mikic, M. (1998). *International Trade*. London: Macmillan Press.
12. Munck, R. (2003). *Globalization and Labour: The New Great Transformation*. Zed Books Ltd. University Press.
13. OECD, Multinational Enterprises (MNEs) in the Global Economy Policy .
14. Sakamoto, Y. (1994). *Global Transformation: Challenges to the State System*. Tokyo: United Nations University Press.
15. Salvatore, D. (2004). *International Economics*. John Wiley and Sons Inc.
16. Sodersten, B. O. and Reed, G. (2008). *International Economics*. London: McMillan.
17. Stiglitz, J. E. (2002). *Globalization and its Discontents*. London: Penguin.

Course Name: Entrepreneurship, Innovation and Skill Development

L	T	P	Credit
2	0	0	2

Course Code: ECO.510

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: Understand the basic concepts of entrepreneur, entrepreneurship and its importance,
- CLO2: Aware of the issues, challenges and opportunities in entrepreneurship,
- CLO3: Develop capabilities of preparing proposals for starting small businesses,
- CLO4: Know the availability of various institutional supports for making a new start-up.

Units/Hours	Contents	Mapping with CLO
I 08 hours	Introduction to entrepreneur and entrepreneurship: Characteristics of an entrepreneur; Characteristics of entrepreneurship; entrepreneurial traits and skills; innovation and entrepreneurship; Types of entrepreneurial ventures; enterprise and society in Indian context; Importance of women entrepreneurship.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 07 Hours	Promotion of a venture: Why to start a small business; How to start a small business; opportunity analysis, external environmental analysis, legal requirements for establishing a new unit, raising of funds, and establishing the venture - Project report preparation – format for a preliminary project report, format for a detailed/final project report.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 08 Hours	Innovation: Theories, National Innovation System, Firm and market characteristics, Innovation and Intellectual property rights	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	Skill Development: Types of skill development, Entrepreneurial Imagination and Creativity; Skill development programs, Skills for start-up ecosystem in India.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, problem solving, group discussion, practical sessions, blended learning, self-study.

Suggested Readings:

1. Arora, Renu. (2008). *Entrepreneurship and Small Business*, Dhanpat Rai & Sons Publications.

- Chandra, Prasaaan. (2018). Project Preparation, Appraisal, Implementation, Tata McGraw Hills.
- Desai, Vasant. (2019). Management of a Small Scale Industry, Himalaya Publishing House.
- Jain, P. C. (2015). Handbook of New Entrepreneurs, Oxford University Press.
- Srivastava, S. B. (2009). A Practical Guide to Industrial Entrepreneurs, Sultan Chand & Sons.

Course Name: Agricultural Economics

Course Code: ECO.511

L	T	P	Credit
3	0	0	3

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: Explain the various concepts and approaches used in Agricultural Economics,
- CLO2: Understand dynamics of agricultural production and productivity,
- CLO3: Understand dynamics of agricultural marketing in India,
- CLO4: Learn role of organizations for agricultural development and strategies for revival of agriculture and rural economy of India.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Agricultural Economics: Meaning, Scope and Role in economic development; Interface between Agriculture and Industry; Land Reforms; Agriculture Development in Planning Periods and recent initiatives by NITI Aayog; Green Revolution: Implementation and Impacts; Agrarian Crises and Farmer Suicide; Agricultural Diversification, organic farming Zero budget agriculture.	CLO1
	Learning Activities: Peer review of agrarian reforms and policies	
II 11 Hours	Trends of Agricultural Production in India: Growth, Productivity and Regional Disparities in Indian Agriculture; Farm Size and Productivity Relationships; Risk and Uncertainty in Agriculture, Capital Formation in Agriculture; Agri. Production and Management: Basics	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 12 Hours	Agricultural Marketing: Need/importance, Market Structure, Types of Agricultural markets and their regulation, Major Problems, Costs and Efficiency in the markets; CLO3 20 Agricultural Marketing Reforms; Innovations in Agricultural Marketing System; Contract Farming (brief introduction); Agricultural Price Policy in India-MSP, FRP.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 10 Hours	Public Distribution System (PDS): Structure and functioning; Agricultural Finance/credit: types, role, agencies, problems, policies, Inter-linked Credit Markets; Cooperatives vs. producer companies (Intro).	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, problem solving, group discussion & demonstration, field visit, etc.

Suggested Readings

- Acharya, S.S. and Agarwal, N.L. (2012). *Agricultural Marketing in India.*, New Delhi.
- Bansil, P.C. (2017). *Economic Problems of Indian Agriculture*, New Delhi.
- Barkley, A. (2013). *Principles of Agricultural Economics*, Routledge, London.
- Chand, R. (2012). *Development Policies and Agricultural Markets*. Economic and Political Weekly, 47 (52), 53-63.

5. Chand, R., Prasanna, P. L., & Singh, A. (2011). *Farm size and productivity: Understanding the strengths of smallholders and improving their livelihoods*. Economic and Political Weekly, 46(26), 5-11.
6. Chand, R., S S Raju, S. Garg and L.M. Pandey. (2011). *Instability and Regional variation in Indian Agriculture*, NCAP, New Delhi.
7. Deshpande, R. S., & Arora, S. (Eds.). (2010). *Agrarian crisis and farmer suicides* (Vol. 12).
8. Dev, S. M. and Rao, N.C. (2010). *Agricultural Price Policy, Farm Profitability and Food Security*. Economic and Political Weekly, 45 (26 & 27), 174-182.
9. Gill, A. (2004). *Interlinked Agrarian Credit Markets: Case Study of Punjab*. Economic and Political Weekly, 39 (33), 3741-3751.
10. Govt. of India (Latest). *Agricultural Statistics at a Glance, Ministry of Agriculture*, New Delhi.
11. Govt. of India (various years): *Five Year Plans*, Planning Commission, New Delhi.
11. Govt. of India (n.d.). *Various Reports, Ministry of Agriculture and Farmer's welfare*, Government of India, New Delhi.
12. Johl, S.S. and Kapur, T.R. (2006). *Fundamentals of Farm Business Management*, Kalyani Publishers, Ludhiana.
13. Millennial Asia (2022), *Special issue on agriculture market reforms and farmer protests in India in the context of Agrarian Crisis in south Asia*.
14. Penson, J.B., Capps, O. and Woodward, R.T. (2018). *Introduction to Agricultural Economics*, Pearson Education, New Delhi.
15. Reddy, S.S. and Ram, P.R. (2000). *Agricultural Finance and Management*, New Delhi.
16. Reddy, S.S. Ram, R. and Sastry, T.V.N., Devi. I.B. (2008). *Agricultural Economics*, Oxford.
17. Reddy, D.N. and Srijit Mishra. (2010). *Agrarian Crisis in India*, (eds.), Oxford University Press.
18. Soni, R.N. and Malhotra, S. (2016). *Leading Issues in Agricultural Economics*, Delhi.
19. Singh, S. and Singla, N. (2011). *Fresh Food Retail Chains in India*.
20. Ullah et. al. (2016). *Farm risks and uncertainties: Sources, impacts and management, Outlook on Agriculture*, 45(3), 199–205. Available at <https://journals.sagepub.com/doi/abs/10.1177/0030727016665440>.
21. UNIT 15 *CAPITAL FORMATION IN INDIAN AGRICULTURE*. Available at <http://egyankosh.ac.in/bitstream/123456789/18838/1/Unit-15.pdf>.
22. UNIT 16 *AGRICULTURAL MARKETING IN INDIA*. Available at <http://egyankosh.ac.in/bitstream/123456789/18833/1/Unit-16.pdf>.

Course Name: Industrial Economics

Course Code: ECO. 512

L	T	P	Credit
3	0	0	3

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: Describe theories of firm, market structure and conduct,
- CLO2: Discuss competition policy and market discrimination,
- CLO3: Analyse prevailing industrial set up, technological change and development,
- CLO4: Critique industries and their environment.

Units/Hours	Contents	Mapping with CLO
I 10 Hours	Theory of the Firm and Investment Decisions: Theory of the Firm: Undifferentiated Products, Cournot, Stackelberg, Dominant firm model, Bertrand-Heterogeneous products, Chamberlin's small and large	CLO1

	number case, Kinked demand curve theory, Bain's limit pricing, Sales and growth maximization hypothesis, Managerial theories of the firm, Game theoretical models. Investment Decisions: Conventional and modern methods, Risk and uncertainty, Sensitivity analysis, Financial statements and ratio analysis, Inflation accounting, Project appraisal methods, Industrial finance, Sources of finance, Capital structure, Incentive, signaling and control arguments, Separation of ownership and control. Peer reviews of role of various firms.	
	Learning Activities: Brain-storming and Problem Solving	
II 15 Hours	Market, Competition and Discrimination: Vertically Related Markets and Competition Policy: Successive and mutually related market power, Monopoly, variable proportions and price discrimination, Monopsony and backward integration, Uncertainty, Diversification, rationing and cost economics and asset specificity, Internal hierarchies, Hierarchies as information systems, Incentive structures and internal labour markets, Supervision in hierarchies, Competition policy: Need and requirements, Mergers and acquisitions, Coordination with other policies. Product market Differentiation and Imperfect Information: Lancasterian and Hotelling approaches, Representative consumer approach and Chamberlin's model of diversity of tastes, The address approach, Competition in address, Free entry, Pure profit and non-uniqueness in free entry equilibrium, product diversity and multi address firms, Bargains and rip-offs, Theory of sales, Quality and reputations, Product variety, Imperfect discrimination and price dispersions, Advertising, Dorfman Steiner condition, Lemons and information asymmetries. Modelling and scaffolding.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 10 Hours	Technical Change and Market Structure: Technical Change and Market Structure: The Economics of patents, Adoption and diffusion of innovations. Innovations and rivalry: Kamien and Schwartz - Measures of concentration, Concentration ratio, Hirschman - Herfindahl index, Entropy measure, Structure conduct performance paradigm, Contestable markets, Fixed costs, Sunk costs and contestability, Stackelberg - Spence - Dixit model, Peer reviews of various market structures.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 10 Hours	Indian Industry: Industrial growth in India: Trends and prospects, Public enterprises - efficiency, productivity and performance constrains, Small scale industries - definition, role, policy issues and performance, Capacity utilization, Industrial sickness and Exit policy, Concept of competitiveness, Nominal protection coefficients (NPC) and effective rate of protection (ERP), Total factor productivity, Technology transfer, Pricing policies, Administered pricing and LRMC based tariffs, Industrial location policy in India, regional imbalance, Globalization and competition, Privatization. Peer reviews of various problem faced by Indian industries.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Ahluwalia, I. J. (1985), *Industrial Growth in India - Stagnation since Mid-sixties*, Oxford University Press, New Delhi.

2. Ahluwalia, I. J. (1991). *Productivity and Growth in Indian Manufacturing*, Oxford University Press, New Delhi.
3. Desai, A. V. (1994). “*Factors Underlying the Slow Growth of Indian Industry*”, in *Indian Growth and Stagnation - The Debate in India* Ex. Deepak Nayyar, Oxford University Press.
4. Ferguson, Paul R. and Glenys J. Ferguson. (1994). *Industrial Economics - Issues and Perspectives*, Macmillan, London.
5. Shepher, William G. (1985). *The Economics of industrial Organisation*, Prentice - Hall, Inc, Englewood Cliffs, N. J.
6. Staley, E & Morse R. (1965). *Modern Small Industry for Developing Countries*, McGraw Hill Book Company.
7. Vepa R. K. (1988). *Modern Small Industry in India*, Sage Publications.
8. Srivastava, M.P. (1987). *Problems of Accountability of Public Enterprises in India*, Uppal Publishing House, New Delhi.
9. Mohanty, Binode (1991). Ed. *Economic Development Perspectives*, Vol. 3, public Enterprises and Performance, Common Wealth Publishers, New Delhi.
10. Jyotsna and Narayan B. (1990). “*Performance Appraisal of PEs in India: A Conceptual Approach*”, in *Public Enterprises in India - Principles and Performance*, Ed. Srivastave V.K.L., Chug Publications, Allahabad.
11. Mathur, B. L. (1996). “*Organisation Patterns for PEs*”, in *Organisational Development and Management in PEs*, Ed Mathur B. L., Arihant Publishing House, Jaipur.
12. Murty, Varanasy S. (1978). *Management Finance*, Vakils, Feffer and Simons Ltd.
13. Tirole, J. (1996), *The Theory of Industrial Organization*, Prentice - Hall.
14. Holmstrom, B. R., & Tirole, J. (1989). *The theory of the firm*. Handbook of industrial organization, 1, 61-133.
15. Shapiro, C., *Theories of Oligopoly Behaviour*, in Handbook of Industrial Organization, Vol. 1, North-Holland.
16. Curtis Easton, B. & R.G. Lipsey, *Product Differentiation*, in Handbook of Industrial Organization, Vol. 1, North-Holland.

Course Name: Gender Economics

L	T	P	Credit
3	0	0	3

Course Code: ECO.513

Course Learning Outcomes: On completion of this course, students will be able to:

- CLO1: Describe concepts and approaches to gender,
- CLO2: Discuss economic activities and contribution in economic development by women,
- CLO3: Analyse gender gap in social sector and policy measures to bridge them,
- CLO4: Critique prevailing environment for women.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Concepts and Theoretical Approaches in Gender Economics: Difference between Gender and Sex, Concept of gender economics, Gender issues in economic theory, Gender division of work, Invisibility of women’s work, Gender budget Gender Audit, Approaches: Women in development (WID), Women and development (WAD), Gender and development (GAD), Neoliberal approaches.	CLO1
	Learning Activities: Peer reviews of various role of Gender Economics, brain storming and problem solving	
II 11 Hours	Gender and Development: Conceptualizing and measuring women’s contribution to national income and growth, Gender Inequality in human development, Gender related development indices, Measuring	CLO2

	gender empowerment, Women in agriculture, Women in industry, Women in services, Gender dimensions of international trade.	
	Learning Activities: Peer reviews of various role of gender with development brain storming and problem solving.	
III 12 Hours	Gender and Social Sector: Application of theories of capability and human capital for studying gender and education, Significance of Women's education, Gender gaps in educational achievements, Policies and Programmes for promoting women's education. Life cycle approach to gender specific health needs, Reproductive Rights, Gender dimension of national health policies and programmes, National Rural Health Mission, Reproductive and Child Health Programme.	CLO3
	Learning Activities: Peer reviews of various role of gender with social sector, brain storming and problem solving.	
IV 11 Hours	Transition to Socialism: Women, Poverty and Environment: Women's Rights, Deprivation and marginalization of women, Feminization of poverty: extent, causes and consequences, Welfare-oriented Programmes to empowerment-oriented programmes, Need for gender concerns in designing social security policy, Women and environment.	CLO4
	Learning Activities: Peer reviews of various role of women in real world, brain storming and problem solving.	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Anupama. (2007). 'Gender discrimination in quality of employment and wages in unorganised manufacturing sector of India', Indian Journal of Labour Economics, 50(4), 1007-1119.
2. Arputhamurthy, S. (1990). *Women Work and Discrimination*, New Delhi: Ashish Publishing House.
3. Bosarup Ester. (1970). *Women's Role in Economic Development*, George Allen and Unwin, London.
4. DevasiaLeelamma. (1994). *Empowering Women for Sustainable Development*, Ashish Publishing House, New Delhi.
5. Eswaran, M. (2014). *Why Gender Matters in Economics*, Princeton University Press.
6. Jacobsen, J. (2007). *The Economics of Gender*, Wiley-Blackwell.
7. Jose, S. (2008). 'Paid employment and female autonomy in India: issues and evidence', Indian Journal of Labour Economics, 51(3), 397-408.
8. Mazumdar, I. and N. Neetha. (2011). 'Gender dimensions: employment trends in India 1993-94 to 2009-10', Economic and Political Weekly, 46(43), 118-126.
9. Neetha, N. (2006). 'Invisibility continues? Social security and unpaid women workers' Economic and Political Weekly, 41(32), 3497-3498.
10. Nirmala, V and, K. S. Bhat. (1999). 'Female work participation in the emerging labourmarket in India', Indian Journal of Labour Economics. 42(4), 613-639.
11. Pal, M., P. Bharati, B. Ghosh, and T.S. Vasulu (eds.) (2011). *Gender and Discrimination Health, Nutritional Status, and Role of Women in India*, New Delhi: Oxford University Press.
12. Pellissery, S. and S. K. Jalan. (2011). 'Towards transformative social protection: a gendered analysis of the Employment Guarantee Act of India (MGNREGA)', Gender and Development, 19(2), 283-294.
13. Sen, A. and J. Drèze. (1995). *India: Economic Development and Social Opportunity*, Oxford University Press.

Course Name: Financial Institutions and Markets

Course Code: ECO.514

L	T	P	Credit
3	0	0	3

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

CLO1: Evaluate the functioning of a financial system,

CLO2: Assess the role of financial markets in an economy,

CLO3: Describe the efficiency of financial institutions, and

CLO4: Explain the effectiveness of financial services in an economy.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Financial System – Formal and Informal Financial Sectors, Components of the formal financial system, functions of a financial system, key elements of a well-functioning financial system, nature and role of financial intermediaries and financial markets in an economy, Structure of the Indian Financial System and reforms, Relationship between the financial system and economic growth – some theoretical and empirical evidence.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 11 Hours	Financial Markets – The Money Market – Functions of the Money Market, Benefits of an Efficient Money Market, Money Market Instruments, The Indian Money Market; The Capital market – Functions of a Capital market, The Primary Market and Secondary Market, The Derivative Market, The Debt Market; Financial Regulation – RBI and SEBI.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 11 Hours	Financial Institutions – Development Financial Institutions in India, Banking and Non-Banking Institutions, Management of NPAs by Banks in India, Mutual Funds – Investors, Organization, Types of Funds; Insurance – Role of Insurance in economic growth, Insurance intermediaries, Insurance Types, Insurance Regulatory – IRDA	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 12 Hours	Financial Services – Investment Banking Services, Merchant Banking Services, The Depository System, Introduction to Credit Rating - CRISIL and ICRA, Housing Finance, Leasing and Hire Purchase, Financial Inclusion and Microfinance, International Financial Institutions such as IMF and the World Bank and their relationships with Indian Financial Institutions. FDI and FII: nature and scope.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Avadhani, V.A. (2012). *Financial Services and Markets*, Himalaya Publishing House, India
2. Bhole, L. M. (2015). *Indian Financial System*, Chugh Publications, Allahabad, India
3. Bhole, L. M. (2016). *Financial Institutions and Markets*, Tata McGraw Hill Company Ltd., New Delhi, India

4. Gordon and Natarajan. (2012). *Financial markets and services*, Himalaya Publishing House, India
5. Gupta, Shashi K. & Agrawal, Nisha. (2013). *Financial services*, Kalyani Publishers, India
6. Houthakker, H. S. & Williamson, P. J. (1996). *Economics of Financial Markets*, Oxford University Press.
7. Khan, M. Y. (2016). *Indian Financial System*, Tata McGraw Hill, New York.
8. Pathak, B. (2014). *Indian Financial System*, Pearson Publication, India

Course Name: Political Economy of Development

Course Code: ECO.515

L	T	P	Credit
3	0	0	3

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

CLO1: Develop understanding of philosophical approaches to political economy,

CLO2: Develop the ability of analysing Marxian political economy,

CLO3: Develop ability of conceptualization of imperialism and neo-colonialism,

CLO4: Develop ability to analyse transition to socialism.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Introduction to Political Economy: Idealism and materialism; Metaphysics and dialectics; Laws of dialectics; Categories of philosophy; Theory of cognition; Dialectical and Historical Materialism; Mode of production; Social super-structure and its elements; Dialectical interaction of base and superstructure; Historical social-economic formations; and Asiatic mode of production.	CLO1
	Learning Activities: Peer review of political economy, brain-storming and problem solving	
II 11 Hours	Marxian Political Economy: Analysis of capitalism; Development of capitalism in agriculture; Nature and process of planning; Market mechanism; Methods of accumulation; and Primitive socialist and capitalist methods.	CLO2
	Learning Activities: Modelling and scaffolding, brain storming and problem solving.	
III 12 Hours	Conceptualization of Imperialism: Emergence of monopoly capitalism and imperialism; Role of banks in monopoly capitalism; Imperialism; Imperialism and the state; Concept of neo-colonialism; Colonialism and Neo-Colonialism; Forces against neo-colonialism and imperialism.	CLO3
	Learning Activities: Modelling and scaffolding, brain storming and problem solving.	
IV 11 Hours	Transition to Socialism: Transition period; Problems and policies; Nature of state; Role of Planning; Market mechanism; Distribution of income and wages; and Strategies for third world development, Decline in Socialism. Washington Consensus.	CLO4
	Learning Activities: Peer review of socialism, brain storming and problem solving.	

Transaction Mode: Presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Dobb, M. (2012). *Russian Economic Development since the Revolution*. London: Routledge Publications.
2. Mandel, E. (1999). *Late Capitalism*. London: Verso Publication.
3. Maurice, C. (2015). *Diametrical Materialism: An Introduction*. Aakar Books Publishers.
4. Petras, J. F. and Veltmeyer, H. (2001). *Globalization Unmasked: Imperialism in the 21st Century*. Canada: Fernwood Publication.
5. Preobrazhensky, E. A. (1965). *The New Economics*. London: Oxford University Press. (Open Online Access)
6. Ravenhill, J. (2016). *Global Political Economy*. Oxford: Oxford University Press.
7. Schumpeter, J. A. (2013). *Theory of Economic Development of Capitalism, Socialism and Democracy (2nd Ed.)*. Wilder Publication, Inc.
8. Sweezy, P. M. (1991). *The Theory of Capitalist Development (1st Ed.)*. New Delhi: K. P. Bagchi and Co.
9. Varoufakis, Y., Theocarakis, N., and Halevi, J. (2012). *Modern Political Economics: Making Sense of the Post-2008 World (2nd Ed.)*. Oxford: Taylor & Francis Publications.
10. Wilczynski, J. (1982). *The Economics of Socialism (1st Ed.)*. New Delhi: S. Chand & Co. Ltd.

Course Name: Economics of Education

Course Code: ECO. 516

L	T	P	Credit
3	0	0	3

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: To acquire knowledge and understanding of key concepts, ideas and theories related to economics and education.
- CLO2: To acquire knowledge and understanding education market, Planning and private participation.
- CLO3: To understand the education finance, issues related to quality, efficiency and equality in Indian education system.
- CLO4: To understand the issues related to higher education, vocational education and contemporary policy issues in Indian perspective.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Introduction to Economics of Education: Effects of education on economic growth; investment in human capital; rate of return to education; capability approach to education; screening value of education; signalling value of education; health and education outcomes and their relationship; education and individual earnings and changes in it; the role of education in individual's mobility.	CLO1
	Learning Activities: Lectures, discussion, brain-storming and Problem Solving.	
II 11 Hours	Education Market and Planning: Concepts of public goods, merit goods and mixed goods; subsidization; social Choice; quality of education. Demand for educational, supply of educational; determinants of education; market failure and education sector; educational planning; different modes of financing of education; Public-Private Partnership in education Sector.	CLO2
	Learning Activities: Lectures, discussion, brain-storming and Problem Solving.	
III 12 Hours	Indian Education System equality and quality: Education and socio-economic inequalities; Education Sector in India: An overview- literacy rates, school participation, school quality measures. Organization, Education for equality; Quality of Education and evaluation.	CLO3
	Learning Activities: Lectures, discussion, brain-storming and Problem Solving.	

	Solving.	
IV 11 Hours	Higher, professional and vocational education and contemporary policy issues: Higher Education, Professional and Vocational Education: equity, access, vocational and professional education and incentives; Education loans; Unemployment and skill. Common Education System. Sarva Shiksha Abhiyan (SSA). Right to Education. National Education Policy, 2020 and knowledge economy.	CLO4
	Learning Activities: Lectures, discussion, presentation, brain-storming and Problem Solving.	

Transaction Mode: lecture, discussion, Presentation, Blended learning, Brain-storming.

Suggested Readings

1. Agarwal, Pawan(2009): Indian Higher Education Envisioning the Future, SAGE Publications Pvt. Ltd
2. Anand, Mukesh and Jha, Raghavendra, (2004) “Budgetary Subsidies and Fiscal Deficit: A Case of Maharashtra”, Economic and Political Weekly, August 21.
3. Blaug, Mark (ed.) (1968) Economics of Education, Selected Readings, Volume I and II, Penguin Books.
4. Blaug, Mark, (1989) “Review of Economics of Education: Research and Studies”, Psacharopoulos, G (ed.) (1987) Oxford University Press.
5. Brown, Phillip and Lauder, Hugh, (1996) “Education, Globalization and Economic Development”, Journal of Education Policy, 11(1), pp 1-25.
6. Carnoy, Martin, (1995) “Structural Adjustment and the Changing Face of Education”, International Labour Review, 134(6), pp. 653-73.
7. Education and National Development: Report of the Education Commission 1964-66. (Chairman Prof. D.S. Kothari) NCERT, 1971.
8. Greenaway, David and Haynes, Michelle (2004) Funding Higher Education, in Johnes, G and Johnes, J (ed.) International Handbook on the Economics of Higher Education, Edward Elgar.
9. Hannum, Emily and Buchmann, Claudia, (2005) “Global Education Expansion and Socio-economic Development: An Assessment of Findings from the Social Sciences”, World Development, Vol.33, pp. 333-354.
10. Jimenez, Emmanuel, (1989) “Social Sector Pricing Policy Revisited: A Survey of Some Recent Controversies”, Proceedings of the World Bank Annual Conference on Development Economics.
11. Johnes, Geraint and Johnes, Jill (ed.) (2004) International Handbook on the Economics of Education, Edward Elgar Publishing Ltd.
12. Majumdar, Tapas, (1983) Investments in Education and Social Choice, Cambridge: Cambridge University Press.
13. Majumdar, Tapas, (1997) “Economics of Indian Education for the Next Century”, The Indian Economic Journal, 45(4), April-June.
14. Majumdar, Tapas, (2005) “Rationality with Inconsistency between Parallel Preference Orderings”, Contemporary Issues and Ideas in Social Sciences, web: www.ciiss.net, January.
15. McMohan, Walter W. 2004. “The Social and External Benefits of Education”, Johnes, G. and Johnes, J. (ed) Internal Handbook on the Economics of Education, Edward Elgar.
16. Mehrotra, Santosh, (2005) “Human Capital or Human Development?: Search for a Knowledge Paradigm for Education and Development”, Economic and Political Weekly, January 22.
17. Musgrave and Musgrave, Public Finance, Tata McGraw Hill.
18. National Education Policy, 2020

19. Olssen, Mark 1996. "In Defence of the Welfare State and Publicly Provided Education: A New Zealand Perspective", *Journal of Education Policy*, 11(3), 337-362.
20. Psacharopoulos, G. and Patrinos, H.A. 2005. "Human Capital and Rates of Return" in Johnes, G. and Johnes, J. (ed) *International Handbook on the Economics of Education*. Edward-Elgar.
21. Psacharopoulos, George (ed.) (1987) *Economics of Education Research and Studies*, Pergamon Press.
22. Romer, Paul M. (1994) "The Origins of Endogenous Growth", *Journal of Economic Perspectives*-Volume 8, No. 1, pp. 3-22, Winter.
23. Samuelson and Nordhaus, *Economics*.
24. Sen, Amartya (2001) *Development as Freedom*, Oxford University Press.
25. Sen, Amartya, and Dreze, J., (1996) *India: Economic Development and Social Opportunity*, Oxford University Press.
26. Srivastava, D.K., and Rao, Bhujanga C (2004) "Government Subsidies in India: Issues and Approach", in Favaro, Edgardo M. and Lahiri, Ashok (ed.) *Fiscal Policies and Sustainable Growth in India*, Oxford University Press.
27. Stiglitz, Joseph E. (2000). *Economics of the Public Sector*, W. W. Norton.
28. Stiglitz, Joseph E. and Walsh, Carl E. (2006). *Economics*, W. W. Norton.
29. Tilak, Jandhyala B.G. (2004) "Public Subsidies in Education in India", *Economic and Political Weekly*, January 24.
30. Tilak, Jandhyala B.G. (ed.) (2003) *Education, Society, and Development: National and International Perspectives*, A. P. H. Publishing Corporation, NIEPA.
31. *Towards an Enlightened and Humane Society*, National Education Policy 1986, A Review, (Committee for Review of National Policy and Education), New Delhi 1990.
32. Ved Prakash, (2008) *Perspectives on education and development: revisiting education commission and after*, National University of Educational Planning and Administration, Shipra Publications.

SEMESTER -II

Course Name: Microeconomics – II

Course Code: ECO.521

L	T	P	Credit
4	0	0	4

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: Familiar with the process of bargaining of oligopolistic firms to form agreements
- CLO2: Follow the debates on firm’s optimization under changing economic contexts
- CLO3: Understand the process of factor price determination under different conditions
- CLO4: Acquire knowledge on general equilibrium and social welfare maximization

Units/Hours	Contents	Mapping with CLO
I 15 Hours	<p>Collusive Oligopoly and Theory of Games: Collusive Oligopoly; Cartels: Market sharing and joint profit maximization; Price leadership: Low-cost, Dominant firm, and Barometric price Leaderships; Basing Point Pricing System. Theory of Games and collusive oligopoly: Two-person Zero-Sum Game; Certainty and Uncertainty Model; Non Zero-Sum Game; The prisoner’s Dilemma, Nash- Equilibrium. The process of price and output determination of the firms under tacit agreements along with various business strategies.</p> <p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers, Case studies</p>	CLO1
II 15 Hours	<p>Marginalist Controversy and Average Cost Pricing: Marginalist Controversy and Average Cost Pricing: Hall and Hitch Report and Full-Cost Pricing; Gordon’s Attack; The Mark-Up Rule; Bain’s Limit-Pricing theory; Recent developments in Limit Pricing Theory: Sylos-Labini, Franco Modigliani, Bhagwati, Pahigian models; Managerial Theories of Firm: Baumol, Marris and Williamson Models of the Firm. The process of price and output determination of the firms under restriction of potential entry and sale revenue maximization.</p> <p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers, Case studies</p>	CLO2
III 15 Hours	<p>Factor Pricing and Income Distribution: Factor Pricing under Perfectly Competitive Markets; Factor Pricing Under Imperfectly Competitive Markets: Monopolistic and Monopsonistic powers; Bilateral Monopoly; Elasticity of factor Substitution; Technological Progress and Income Distribution; Pricing of fixed factors: Rents and Quasi Rents; Adding up Problem and Product Exhaustion Theorem. The process of determination of rents & wages through negotiations and bargains.</p> <p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers, Case studies</p>	CLO3
IV 15 Hours	<p>General Equilibrium and Welfare Economics: Interdependence in the Economy; The Walrasian System; Existence, Uniqueness and Stability of an Equilibrium; Path to General Equilibrium; Two-factor, two-commodity & two consumer General Equilibrium System. Welfare Economics: Pareto Optimality; Kaldor-Hicks Criteria, Bergson Criteria; Maximization of Social Welfare; Theory of Second Best. Arrow’s Impossibility theorem; Equilibrium of markets through mutual interdependence, and maximization of Society’s welfare through optimal allocation of resources.</p> <p>Learning Activities: Lectures, Problem solving, Assignments, Term Papers, Case studies</p>	CLO4

Transaction Mode: Class Lecture, Blended Learning, Problem Solving, Discussion & Demonstration, and Case Studies,

Suggested Readings:

1. Henderson, J.M., and Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach. 3rd Edition*, Tata McGraw Hill, New Delhi
2. Koutsoyiannis, A. (1979). *Modern Microeconomics* (2nd edition). Macmillan Press, London.
3. Mankiw, N. G. (2009). *Principles of Microeconomics. 5th Edition*. SouthWestern, Cengage Learning. USA
4. Pindyck, R.S., D.L. Rubinfeld, & P.L Mehta. (2009). *Microeconomics, 7th Edition*, Pearson, New Delhi.
5. Samuelson, P.A. and Nordhaus, W.O. (1998). *Economics* (16th Edition). New Delhi: Tata McGraw Hill.
6. Snyder, C. and W. Nicholson. (2010). *Fundamentals of Microeconomics, 10th Edition*, Cengage Learning-New Delhi.
7. Stigler, G. (1996). *Theory of Price* (4th Edition). New Delhi: Prentice Hall of India.
8. Varian, H. (2010). *Intermediate Microeconomic. 8th Edition* New York: W.W Norton.
9. O'Connell, J. F., & O'Connell, J. F. (1982). *Welfare economic theory*. Auburn House Pub. Co.
10. Little, I. M. D. (2002). *A critique of welfare economics*. Oxford University Press.
11. Albert, M., & Hahnel, R. (2017). *Quiet revolution in welfare economics*. Princeton University Press.
12. Maskin, E., & Sen, A. (2014). *The Arrow impossibility theorem*. Columbia University Press.
13. Kelly, J. S. (2014). *Arrow impossibility theorems*. Academic Press.
14. Arrow, K. J. (2012). *Social choice and individual values* (Vol. 12). Yale university press.

Web links:

1. <https://durhamtech.libguides.com/microeconomics/web>
2. <https://lumenlearning.com/courses/microeconomics/>
3. <https://www.edx.org/learn/microeconomics>

Course Name: Macroeconomics-II

Course Code: ECO.522

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Evaluate the effectiveness of macroeconomic policies,
- CLO2: Correlate inflation and unemployment for policy effectiveness,
- CLO3: Comprehend the causes and consequences of cyclical fluctuations in an economy, and
- CLO4: Critically appraise the policy implications of new classical macroeconomics.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Neo-Classical and Keynesian Synthesis: Neo-classical and Keynesian views on Interest Rate Determination; The Basic IS-LM Model; Extension of IS-LM Model with Govt. Sector; Relative effectiveness of Monetary and Fiscal Policies; Extension of IS-LM Model with Labour Market and Flexible Prices – Keynes and Pigou effects; Extension of IS-LM Model with Foreign Sector; Monetary and Fiscal Policy in the Open Economy; The Mundell-Fleming Model.	CLO1

	Learning Activities: Brain-storming; case analysis and problem solving.	
II 15 Hours	Inflation and Unemployment: Meaning, causes, effects and control of Inflation; Theories of Inflation – Classical, Keynesian, Monetarist, and Structuralist Approaches; Inflation and the rate of unemployment – Phillips curve hypothesis; Policy dilemma – inflation or unemployment; Short-run and Long-run Philips Curve – Natural Rate of Unemployment – Non-Accelerating Inflation Rate of Unemployment; Tobin’s Modified Phillips Curve; Defensive Expectations and Phillips Curve; Theories of Unemployment – A Generic Efficiency Wage Model, Shapiro-Stiglitz Model, Contracting Models, Search and Matching Models; Automation and Unemployment.	CLO2
	Learning Activities: Brain storming and problem solving, convergent and divergent thinking; case analysis.	
III 15 Hours	Business Cycle Theories: Pure Monetary Theory; Monetary over investment theory; Schumpeter’s innovation theory; Keynes’ theory, Samuelson’s Multiplier-accelerator interaction theory; Hicks’ trade cycle theory; Real Business Cycle Theory; The Financial and Macroeconomic Crises of 2008 and Beyond.	CLO3
	Learning Activities: peer discussion and case analysis, brain storming and problem solving.	
IV 15 Hours	Rational Expectations, Supply-Side Model and the New Economy: The New Classical Critique of Micro Foundations; The New Classical Approach - Rational Expectations Hypothesis: Imperfect Information, Nominal Money and Output – Asset Bubbles, Multiple Equilibria, Sunspots and Cycles; Supply-side Economics – Laffer Curve; Working of Supply-side Economics – The Case of US; The supply-side story of Ireland & Information Technology; The New Economy and Productivity Puzzle; New economy vs. Keynesian Economy.	CLO4
	Learning Activities: peer discussion and case analysis, brain storming and problem solving.	

Transaction Mode: Lecture, case study, problem solving, blended learning, discussion & demonstration, self-study, blended learning.

Suggested Readings:

1. Acemoglu, Doron. (2016): *Macroeconomics*, New Delhi, Pearson education India.
2. Branson, William H. (2014). *Macroeconomics: Theory and policy*, (3rd edition), New Delhi, East-West press Pvt. Ltd.
3. Carlin, Wendy; & Soskice, David. (2013). *Macroeconomics: Imperfections, institutions & policies*, New Delhi, Oxford University press.
4. Dornbusch, Rudinger; Fisher, Stanley; and Startz, Richard. (2015). *Macroeconomics*, (11th edition), New Delhi, Tata McGraw hill education India Pvt. Ltd.
5. Gordon, Robert. J. (2015): *Macroeconomics*, (12th edition), New Delhi Pearson education India Pvt. Ltd.
6. McConnell, C. R., and Gupta, H. C. (2012). *Introduction to Macroeconomics*. Tata McGraw-Hill Publishing Company.
7. Prasad, N. K. (2012). *Advanced macroeconomics*, Delhi ABD publisher.
8. Romer, David. (2012). *Advanced Macroeconomics* (4th edition), New York, McGraw Hill Irwin.
9. Shapiro, Edward. (2015). *Macroeconomic analysis*, (5th edition), New Delhi, Galgotia publication Pvt. Ltd.
10. Wickens, Michael. (2011). *Macroeconomic theory*, 2nd edition, New Jersey, Princeton university press.

Course Name: Statistical Methods for Economics

Course Code: ECO.523

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Apply various techniques of Central tendency, dispersion, correlation and regression using excel/SPSS
- CLO2: Construct index numbers using Excel/SPSS
- CLO3: Randomize the economic experiences/observations,
- CLO4: Evaluate the uncertainties associated with economic events.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Central Tendency, Dispersion, Correlation and Regression: Measures of Central Tendency and Dispersion, Correlation and Regression Analyses; Properties of Correlation and Regression Coefficients, Partial and Multiple correlation, Multiple linear regression equation and coefficient of multiple determination.	CLO1
	Skill Enhancement Activities: Computer Literacy, Data Analysis, Problem Solving, and Critical Thinking through hands-on exercises using Excel/SPSS and Interpretation of results.	
II 15 Hours	Index Number and Time Series: meaning, problems in construction of an index number, Tests of consistency: Base shifting and splicing of Index Numbers. Time Series: Components of Time series, Measurement of trend by moving average method and the method of least squares. Curve fitting. Method of estimation of second degree parabolic, exponential and modified exponential curves; Method of computing average annual rate of growth and compound annual growth rate.	CLO2
	Skill Enhancement Activities: Computer Literacy, Data Analysis, Problem Solving, and Critical Thinking through hands-on exercises using Excel/SPSS and Interpretation of results.	
III 15 Hours	Probability :Introduction to Probability–Classical, Empirical and Axiomatic Definitions; Rules of Probability – Addition, Multiplication, Conditional, Independence, Bayes’ Theorem. Random Variable – Discrete and Continuous; Probability Distribution - Pdf, Pmf and Cdf; Mathematical Expectation of Random Variables and Their Functions; Mean and Variance, Moment Generating Function and Characteristic Function; Probability Distribution: Properties and applications of Binomial, Poisson and normal distributions.	CLO3
	Skill Enhancement Activities: Computer Literacy, Data Analysis, Problem Solving, and Critical Thinking through hands-on exercises using Excel/SPSS and Interpretation of results.	
IV 15 Hours	Sampling: Concepts and uses of sampling, difference between random and non-random sampling, simple random sampling, stratified random sampling and probability proportional to size sampling; Meaning and construction of confidence interval for sample mean. Elementary applications based upon the distribution of Z, t, χ^2 and F (including ANOVA) statistics.	CLO4
	Skill Enhancement Activities: Computer Literacy, Data Analysis, Problem Solving, and Critical Thinking through hands-on exercises using Excel/SPSS and Interpretation of results.	

Transaction Mode: Lecture, problem solving, discussion & demonstration, blended learning.

Suggested Readings:

1. Gupta, S. C. (2012). *Fundamentals of Statistics*. New Delhi: Himalaya Publishing House Pvt. Ltd.
2. Gupta, S. C., and Kapoor, V. K. (2009). *Fundamentals of applied statistics*. New Delhi: Sultan Chand and Sons.
3. Gupta, S.P. (2012). *Statistical Methods* (28th Edition). New Delhi: Sultan Chand and sons.
4. Knut S, and Peter J. H. (2007). *Mathematics for Economic Analysis*. India: Pearson Education.
5. Murray, S. S. (2014). *Probability, Schaum Series* (5th Edition). India: McGraw-Hill.
6. Murray, S. S. (2014). *Statistics, Schaum Series* (5th Edition). India: McGraw-Hill.
7. Nagar, A. L. and R. K. Das. (1993). *Basic Statistics*. New Delhi: Oxford University Press.
8. Jasraj, Lokesh (2020). *Data Analysis Using SPSS*, Sage Publications.
9. Guerrero, H. (2019). *Excel Data Analysis*, Springer Nature, Swizerland
10. Berk, K. & Carey, P. (2003). *Data Analysis with Microsoft Excel*, Duxbury Press

L	T	P	Credit
4	0	0	4

Course Name: Basic Econometrics

Course Code: ECO.524

Course Learning Outcomes (CLO): On completion of this course, learners will be able to:

- CLO1: Understand the basic of regression models and derivation of parameters,
- CLO2: Familiar with the multiple regression modelling and issues on data handing,
- CLO3: Learn basis of diagnostic tests and carry out empirical modelling with software,
- CLO4: Understand Basics & Fit macro-econometric models for time series data with software.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Linear Regression Model: Problem of estimation-Meaning, Nature and Scope of Econometrics; Concepts of Population Regression Function and Sample Regression Function; Simple (two variable) Linear Regression Model: Assumptions, Estimation, Properties (Gauss-Markov Theorem (BLUE) and Consistency); Interval estimation and Testing of hypothesis of individual coefficients (t-statistics); overall significance of the model (F-statistics), Coefficient of Determination and Goodness of fit through R-square and Adjusted R-square, Predictions. Testing of hypothesis of regression parameters	CLO1
	Skill Enhancement Activities: Critical thinking and Evaluation, Analytical skill, Problem Solving, decision making through hands-on practices using Excel, SPSS, STATA and e-views.	
II 15 Hours	Extension of regression models: Multiple (K-variable) Linear Regression Model: Assumptions, Estimation, Properties (Gauss-Markov Theorem (BLUE) and Consistency); Extension of regression models: regression through origin, Scaling and units of measurement, and functional forms in regression models: log-linear, and semi-log models; Choice of functional forms (MDW test); Dummy variable models: Dummy variable trap, Introduction to Non-Linear Regression Models, Dummy variable Models - ANOVA and ANCOVA, Applications including seasonal analysis, and checking for structural stability.	CLO2
	Skill Enhancement Activities: Critical thinking and Evaluation, Analytical skill, Problem Solving, decision making hands-on practices using Excel, SPSS, STATA and e-views.	

III 15 Hours	Relaxation of Assumptions of CLRM-Multicollinearity: Meaning, nature, causes, consequences and remedial measures (Ridge Regression); Heteroscedasticity: Meaning, nature, causes, consequences and remedial measures (Methods of weighted least square and generalised least square regression); Autocorrelation: Meaning, nature, causes, consequences and remedial measures; Econometric Modelling: Model Specification and Diagnostic Testing.	CLO3
	Skill Enhancement Activities: Critical thinking and Evaluation, Analytical skill, Problem Solving, decision making hands-on practices using Excel, SPSS, STATA and e-views.	
IV 15 Hours	Basics of Time Series and Dynamics Models: Time series basic concepts: Stochastic Process (stationary and non-stationary process), Unit root process, Integrated Stochastic Process; Test of Stationarity: Graphical Analysis, and Unit root tests (Dickey-Fuller (DF) test, Augmented Dickey-Fuller (ADF) test, Phillips-Perron (PP) tests, Difference stationary and trend stationary process; Seasonality analysis; Dynamic Econometrics Models: Autoregressive and Distributed lag models; Simultaneous Equation models: Structural and reduced form equations, Identification (Rank and Order conditions) and Estimation problems; Methods of estimation: ILS and 2SLS methods.	CLO4
	Skill Enhancement Activities: Critical thinking and Evaluation, Analytical skill, Problem Solving, decision making hands-on practices using Excel, SPSS, STATA and e-views.	

Transaction Mode: Class Lecture, Blended Learning, Demonstration, Hands on practices using Excel, SPSS, STATA and e-views.

Suggested Readings:

1. Brooks, C. (2014). *Introductory econometrics for finance*. Cambridge university press.
2. Baltagi, B. (2008). *Econometric analysis of panel data*. John Wiley & Sons.
3. Enders, W. (2008). *Applied econometric time series*. John Wiley & Sons.
4. Gujarati, D. (2014). *Econometrics by example*. Palgrave Macmillan.
5. Gujarati, D. N. & Sangeetha. (2007). *Basic econometrics*, TMH.
6. Gujarati, D. N., & Porter, D. (2009). *Basic Econometrics*, Mc Graw-Hill International Edition.
7. Johnston, J. and Dinardo, J. (1996). *Econometric Methods*, McGrawHill/Irwin Publications.
8. Nachane, D. M. (2006). *Econometrics: theoretical foundations and empirical perspectives*. OUP Catalogue.
9. Wooldridge, J. M. (2015). *Introductory econometrics: A modern approach*. Nelson Education.

Web links:

1. <https://davegiles.blogspot.com/>
2. <https://www.stata.com/links/>
3. <https://www.eviews.com/Learning/index.html>

Course Name: Money and Banking**Course Code: ECO.525**

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Comprehend the theories of money supply,
- CLO2: Explain the theories of demand for money,
- CLO3: Assess the functioning of a financial system,
- CLO4: Evaluate the effectiveness of monetary policy in a country.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Introduction to Money: Meaning, Nature and functions; Quantity Theory of Money – Classical, Keynesian, Monetarists; Theories of Money Supply, Components of Money Supply; Measures of Money Supply; Determinants of Money Supply; Money Multiplier. Liquidity Approach to Monetary Theory - Gurley-Shaw Thesis, Radcliffe Committee Approach.	CLO1
	Learning Activities: Brain Storming and Problem Solving.	
II 11 Hours	Demand for Money: Classical Theory, Keynes' Theory, Inventory Approach, Portfolio Balance Theory, Friedman's Theory; Monetary Policy – Meaning, Objectives, and Instruments; The structure of interest rate – term structure and yield curve; Theories of term structure of interest rates.	CLO2
	Learning Activities: Brain Storming and Problem Solving.	
III 11 Hours	Financial System: Financial Markets – Functions and Types; Different theories & Approaches; Money Market and Capital Market – nature, functions and instrument; Structure of Indian money and capital markets; Theoretical perspectives on financial and real sectors.	CLO3
	Learning Activities: Brain Storming and Problem Solving.	
IV 11 Hours	Banking: Theories of Banking; Commercial and Central Banking Systems – Functions, Credit Creation and Credit Control; Banking and Non-Banking Financial Intermediaries in India; RBI – Functions, Monetary Policy – Methods and Recent Policy Changes in India; International Monetary policy transmission mechanism. Impact of world bank and IMF.	CLO4
	Learning Activities: Brain Storming and Problem Solving.	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Bhole, L. M. (2004). *Financial Institutions and Markets: Structure, Growth and Innovations*. India: Tata McGraw-Hill Education.
2. Gautam, S.K. (2012). *Money, banking and finance*. Mumbai, Vakratund publishers.
3. Hajela, T.N (2009). *Money and banking: Theory with Indian banking*. New Delhi, Ane books Pvt. Ltd.
4. Hajela, T.N. (2015). *Money banking and public finance*, New Delhi, Ane Books Pvt. Ltd.

5. Iyenagar (2011). *Money matters: Macroeconomics and financial markets*, New Delhi, Sage publications.
6. Mithani, D.M. (2013). *Money, Banking, international trade and public finance*, New Delhi, Himalaya publishing house
7. Poonia, V. (2012). *Money banking in India*. New Delhi, Srishti books distributors.
8. Popli, G. S., Jain, A. (2015). *Principles and Systems of Banking*, PHI Publishing.
9. Uppal, R.K (2011). *Money banking and finance: evolution and present structure*, New Delhi, new century publications.
10. Zola, Emile (2014). *Money*, New Delhi, Oxford University press.

Course Name: Innovation and Entrepreneurship

Course Code: ECO.526

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Discuss the attitudes, values, characteristics, behaviour, and processes associated with possessing an entrepreneurial mindset and engaging in successful appropriate entrepreneurial behaviour, discuss what is meant by entrepreneurship and innovation from both a theoretical and practical perspective, and the role of the entrepreneur in the new enterprise creation process,
- CLO2: Describe the ways in which entrepreneurs perceive opportunity, manage risk, organise resources and add value,
- CLO3: Develop a plan for implementing entrepreneurial activities in a globalised and competitive environment being responsible for the social, ethical and culture issues, Critique a plan for implementing entrepreneurial activities in a globalised and competitive environment being mindful of the social, ethical and culture issues,
- CLO4: Engage in a continuing learning process through the interaction with peers in related topics, as individuals and as team members.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Entrepreneurship & Innovation: Introduction, Entrepreneurship, Entrepreneurial process, Entrepreneurial mind, Creativity and innovation, Innovation, Opportunity, Ideas, opportunities, and innovation, Relevant Cases	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 11 Hours	Entrepreneurial Style: Sole Proprietor, Partners, Joint Stock Companies, Small business, Start-ups, Ventures, Family business, social entrepreneurship, Intrapreneurship, Relevant Cases	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 11 Hours	Business Plan & Entrepreneurial Strategy: Screening opportunities, Business plan, Resource requirements, Entrepreneurial strategy, Entrepreneurial team, Entrepreneurial finance, Entrepreneurial marketing, Relevant Cases.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 11 Hours	Managing, Growing and Liquidating Enterprise: Enterprise management, Growth strategies, Industrial sickness, Remedial measures, Liquidation of enterprise, Relevant Cases	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Note: At least one industrial visit and one business plan preparation will be mandatory before appearing in the end semester examination.

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing, business games and direct observation, blended learning.

Suggested Readings:

1. Timmons, Jeffrey A., Gillin, L. M., Burshtein, S., and Spinelli, Stephen Jr. (2011). *NewVenture Creation: Entrepreneurship for the 21st Century – A Pacific Rim Perspective*, 1st Edition. McGraw-Hill Irwin.
2. Bessant, J. (2003). *High Involvement Innovation: Building and Sustaining Competitive Advantage Through Continuous Change*. Chicester: John Wiley & Sons.
3. Bygrave, W and Zackarakis, A. (2013). *Entrepreneurship*, 3rd Edition, John Wiley and Co.
4. Drucker, P. (1999). *Innovation and Entrepreneurship*, Butterworth Heinemann, Oxford.
5. Fagerberg, J, Mowery, DC and Nelson, RR. (2005). *The Oxford Handbook of Innovation*, Oxford University Press, NY.
6. Hisrich, R.D., Peters, M.P., and Shepherd, D. (2013). *Entrepreneurship*, McGraw-Hill Irwin, Boston.
7. Kuratko, D. (2013). *Entrepreneurship: Theory, Process, and Practice*, 9th Edition, Wiley online library.
8. Moore, Geoffrey. (1999). *Crossing the Chasm*, Harper & Collins.
9. Porter, ME, *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York, NY, 1985.

Journals for Reference

1. Journal of Business Venturing
2. Entrepreneurship Theory and Practice
3. Journal of Small Business Management
4. Academy of Management Review
5. Journal of Small Business and Entrepreneurship
6. Venture Capital
7. Small Business Economics
8. Family Business review

Web links

1. www.brikenbulbs.com
2. www.en.wikipedia.org/wiki/business.plan
3. www.brainstorming.co.uk
4. www.mind-mapping.co.uk
5. www.mckinsey.com/
6. www.ideo.com
7. www.wdc-econdev.com

Course Name: Social Survey Methods

Course Code: ECO.527

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Explain the various concepts and approaches used in social survey,
- CLO2: Identify the various survey techniques used in social sciences,
- CLO3: Distinguish the various sampling techniques,
- CLO4: Analyze the social survey data.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Introduction to Surveys and types of social research methods: research methods for community needs, in depth interviews, group discussions etc. Advantages and limitations of social survey methods.	CLO1
	Learning Activities: Brain Storming and problems solving.	
II 11 Hours	Social Surveys: An Introduction to Structured Questionnaires and Structured Interviews, Survey error.	CLO2
	Learning Activities: Brain Storming and problems solving.	
III 12 Hours	Sample Design: choosing target population and sample size, selection of appropriate sampling technique.	CLO3
	Learning Activities: Brain Storming and problems solving.	
IV 11 Hours	Analysis of Surveyed Data: coding and preparing data tables, calculation and presentation with excel, various case studies of Social Surveys.	CLO4
	Learning Activities: Brain Storming and problems solving	

Transaction Mode: Lecture, case study, discussion, field visits and demonstration, blended learning.

Suggested Readings:

1. Becker, Howie and Pamela Richards. 1986. *Writing for Social Scientists: How to Start and Finish your Thesis, Book or Article*. University of Chicago Press.
2. Dillman, D., Eltinge, J., Groves, R., & Little, R. (2002). *Survey nonresponse indesign, data collection, and analysis*. In Survey Nonresponse, R. Groves, D. Dillman, J. Eltinge, & R. Little. New York: John Wiley & Sons.
3. Fowler, F. (1995). *Improving survey questions: design and evaluation*. Thousand Oaks, CA: SAGE Publications. (Chapter 3, 46-77)
4. Fowler, F. (1995). *Improving survey questions: design and evaluation*. Thousand Oaks, CA: SAGE Publications. (Chapter 3, 46-77).
5. Gorin, J. (2006). *Test design with cognition in mind*. Educational Measurement: Issues & Practice, 25(4), 21-35.
6. Groves, R. M et al. (2009). *Survey methodology*. 2nd Edition, Wiley. (Chapters 1-2)
7. Groves, R. M et al. (2009). *Survey methodology*. 2nd Edition, Wiley. (Chapters 1-2) 21.
8. Hambleton, R. K., Swaminathan, H. and Rogers, H. J. (1991) *Fundamentals of item response theory*. Newbury Park, CA: SAGE Publications, (Chapters 1-3).
9. Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, 4. R. (2004). *Survey methodology. that work*. Hoboken, NJ: Wiley.
10. Groves, Robert M. (1989). *Survey Errors and Survey Costs*. New York: John Wiley and Sons
11. Gupta, S. C. (2012). *Fundamentals of Statistics*. New Delhi: Himalaya Publishing House Pvt. Ltd.

11. Gupta, S. C., and Kapoor, V. K. (2009). *Fundamentals of applied statistics*. New Delhi: Sultan Chand and Sons.
12. Gupta, S.P. (2012). *Statistical Methods* (28th Edition). New Delhi: Sultan Chand and sons.
13. *Large- Scale Social Surveys*, Analysis of author links open overly panel Elaine Zanutto Andrew Gelman International Encyclopedia of the Social and Behavioral Sciences (2nd Ed).2015, 385-390.
14. Lavrakas, P. J. (1993). *Telephone Survey Methods:Sampling, Selection, andSupervision*. Thousand Oaks, CA: Sage Publications.
15. Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement*. 9. London: Pinter. (Chapters 10-11, 174-209). Patton, M. (1980) *Qualitative Interviewing*.
16. *Qualitative Evaluation Methods*. Thousand Oaks, CA: SAGE Publications. 195-263.
17. Sapsforf, R. (1999) *Survey Research*. Thousand Oaks, CA: Sage Publications. 20-99.
18. Singleton, R. A., & Straits, B. C. (2005). *Approaches to social research* (4th edition). New York: Oxford University Press.
19. *SOCIAL SURVEY METHODS A Fieldguide for Development Workers Development Guidelines*, No. 6 (Series Editor: Brian Pratt) Paul Nichols Oxfam GB 2000, uk
20. Survey methods [Unit-15.pdf \(egyankosh.ac.in\)](http://egyankosh.ac.in).
21. Weisberg, H. F., Krosnick, J. A., & Bowen, B. D. (1996). *An Introduction to SurveyResearch, Polling, and Data Analysis*. Thousand Oaks, CA: Sage Publications.
22. Weisberg, H. F., Krosnick, J. A., & Bowen, B. D. (1996). *An introduction to survey research, polling, and data analysis* (3rd ed.). Thousand Oaks, CA: Sage. (read chapter 15: Writing survey reports).
23. Wills, G. D. (2005). *Cognitive interviewing: a tool for improving questionnaire design*. Thousand Oaks, CA: SAGE Publications. (Chapter 5)

Course Name: Rural Development and Policies

Course Code: ECO.528

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Learn the nature of rural development in India,
- CLO2: Concepts underlying rural development,
- CLO3: Various agricultural and rural development policies,
- CLO4: Industrialisation and entrepreneurship.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Rural Development: Rural social structure, occupations, interconnectedness, rural socio-economic issues; Rural Economy: rural social structure; rural dynamics: structural transformations; response to changing Agrarian Economy; Rural Farm and Non-Farm Sector: Employment and Barriers; Rural Employment Generation Programmes: NRLM, MGNREGA; Rural Development Policies.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 11 Hours	Approaches to Understand rural development: Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA); Sustainable Rural development, Technology for rural growth: ICT, mobile, successful programmes; Business Markets for village economy.	CLO2
	Learning Activities: Brain-storming and Problem Solving	

III 11 Hours	Planning for Rural Development: levels, functions, decentralization, methodology of micro-level planning, for block and district level planning; Organizations for rural development: criteria, government organisations, PRIs, Cooperatives, Voluntary Agencies/NGOs, Corporations; Community Capacity Building, Common Property Resources.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 11 Hours	Rural Entrepreneurship: role, programmes, role of institutions, Agri Entrepreneurship; Rural Innovations; Micro-Finance Institutions (MFIs): role of MFIs, Self Help Groups; Micro, Small and Medium Enterprises in Rural India; Rural and micro-Insurance; Rural Industrialization.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, problem solving, group discussion & demonstration, self-study, blended learning.

Suggested Readings:

1. Churchill, Craig. (2006). *Protecting the poor: A micro insurance compendium*, International Labour Office, Geneva.
2. Government of India (n.d.) MSME at a Glance, Ministry of Micro, Small and Medium Enterprises.
3. IDFC Rural Development Network. (2013). *India Rural Development Report 2012/13*. Delhi: Orient Black Swan.
4. Jodhka, S.S. (2012). *Village Society*, Orient Black Swan.
5. Jodhka, S.S. (2018). *A Handbook of Rural India* (Readings on the Economy, Polity and Society), Orient Black Swan.
6. Lazaro, E., Agergaard, J., Larsen, M. N., Makindara, J., & Birch Thomsen, T. (2018). *Urbanisation in Rural Regions: The Emergence of Urban Centres in Tanzania*. *The European Journal of Development Research*, 1-23.
7. Mukherjee, A. (2004). *Participatory rural appraisal: methods and applications in rural planning: essays in honour of Robert Chambers* (Vol. 5). Concept Publishing Company.
8. Narula, U. (2010). *Dynamics of Indian Rural Economy: Growth Perspective*, Atlantic Publishers, New Delhi.
9. Parthasarathy, G. (2003). *Economic Reforms and Rural Development in India*. Academic Foundation.
10. Reddy, K. V. (2012). *Agriculture and Rural Development*, Himalaya Publishing House.
11. Schaeffer, P.V. and Loveridge, S. (2000). *Small Town and Rural Economic Development: A case studies Approach*, Praeger Publisher.
12. Singh, B.M. and Namboodiri, KVN. (2007). *Unleashing Rural Entrepreneurship*, ICFAI University Press, Hyderabad.
13. Singh, Katar. (2009). *Rural Development: Principles, Policies and Management*, Sage Publications.

Course Name: Economics of Innovation

Course Code: ECO.529

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Understand the Economics of Innovation
- CLO2: Understand the relations between technological change, and
- CLO3: Economic development,
- CLO4: Evaluate the STI policy.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Nature of Innovation: Theories of innovation, Theories of National Innovation System, Genesis of R&D and innovation concepts.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 11 Hours	Innovation: Firm and market characteristics, international aspects on Innovation, trade.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 12 Hours	Innovation and Intellectual property rights: Policymaking in the area of STI (Science, Technology and Innovation), The role of state and public-private partnerships for STI.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 11 Hours	Measuring economic effects of R&D and innovation: Digitalization and innovation.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, discussion, field visits and demonstration, blended learning.

Suggested Readings:

1. Fagerberg, Jan, David C. Mowery and Richard R. Nelson (eds.). (2005). *The Oxford Handbook of Innovation*, Oxford University Press. <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199286805.001.0001/oxford-hb-9780199286805>.
2. Freeman, Chris and Luc Soete. (2000). *The Economics of Industrial Innovation*, 3rd ed., The MIT Press. <https://ebookcentral.proquest.com/lib/hse/library/ebooks/reader.action?docID=3061321&query=chris+freeman>.
3. Greenhalgh, Christine and Mark Rogers (eds). (2010). *Innovation, Intellectual Property and Economic Growth*, Princeton University Press. <https://epdf.tips/download/innovation-intellectual-property-and-economic-growth.html>.
4. Hall, Bronwyn H. and Nathan Rosenberg (eds). (2010). *Handbook of the Economics of Innovation*, Elsevier. <https://www.sciencedirect.com/handbook/handbook-of-the-economics-of-innovation>.
5. Henri Delanghe, Ugur Muldur, and Luc Soete (eds). (2009). *European Science and Technology Policy*, Edward Elgar. <https://www.elgaronline.com/view/9781848443303>.

Course Name: International Trade and Investment

Course Code: ECO.530

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Comprehend the theories of international trade,
- CLO2: Identify the emerging patterns of international trade,
- CLO3: Examine the prospects of regional integration,
- CLO4: Elucidate the role of international investment.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Conceptualization of Trade: Classical, Neo Classical and New Theories of trade, Terms of trade, Prebisch and Singer views on terms	CLO1

	of trade, Environmental and Social issues of trade.	
	Learning Activities: Brain-storming and Problem Solving	
II 11 Hours	Emerging Pattern of Trade: Classification of Trade in Services, High Technology Products, Trade in Climate Smart Goods, changing nature of trade in emerging economies, Trade between developed vs. developing economies. Role of Global Value Chain in Trade,	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 11 Hours	Regional Integration: North- North, South- South and North–South. EU, ASEAN, NAFTA, SAARC, BIMSTEC, RCEP, BRICS, Brexit and India, USA- China Trade War.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 12 Hours	Investment and Development: Relation between FDI and Rand D, Financial Crisis, Contribution of Various Nobel Laureates in International economics - Joseph E. Stiglitz & Paul Krugman; India’s EXIM and FDI policy. Covid-19 Pandemics and Trade.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, discussion, blended learning.

Suggested Readings:

1. Alex, E. F. Jilberto, and Andre M. (1998). *Regionalization and Globalization in the Modern World Economy: Perspectives on the Third World and Transitional Economies*, Routledge.
2. Bank, W. (2008). *World Integrated Trade Solution (WITS) Database*.
3. Bhagwati, J.N. (1998). *International Trade: Selected Readings*, McMillan University Press.
4. Bhatia, S.K. (2017). *Brexit and India: Analyzing the Implications* (Eds.), New Delhi Publishers.
5. Cole, Matthew and Robert J. R. E. (2003). *Do Environmental Regulations Influence Trade Patterns: Testing Old and New Trade Theories*, *The World Economy*: 1163-86.
6. Copeland, B. and S. Taylor. (1994). *North-South trade and the Environment*, *Quarterly Journal of Economics*, 755-787.
7. Copeland, B. and S. Taylor. (1995). *Trade and Tran boundary Pollution*, *American Economic Review*, 716-737.
8. Copeland, B., S. Taylor, and W. Antweiler. (2001). *Is Free Trade Good for the Environment?* *American Economic Review*, 877-908.
9. Debroy, B. (2005). *WTO at Ten: Looking Back To Look Beyond - Development Through Trade (Volume 1) (2 Volume Set)*, Konark Publishers.
10. Debroy, B. (2006). *The Trade Game: Negotiation Trends at WTO and Concerns of Developing Countries*, Published by Academic Foundation.
11. Feenstra, R. (2004). *Advanced International Trade, Theory and Evidence*, Princeton University Press.
12. Choi (2000). *Handbook of International Economics* (1st Edition), Volume 1, 2, 3 & 4. New Delhi, ND: Elsevier publications.
13. Harry, P. Bowen and A. Hollander, and Jean MaveViane. (2012). *AppliedInternational Trade Analysis*, Published by Palgrave Macmillan.
14. James, C. and Robert M. (2004). *International Economics*, John Wiley & Sons. Inc., Dunn, Jr.
15. Jones, R.W. and Kenen, P.B. (2003). *Handbook of International Economics*, Volumes-I, II and III, Elsevier Amsterdam.

16. Krugman, P. R. and Maurice Obstfeld. (2003). *International Economics: Theory and Policy*, Sixth Edition, Addison Westley.
17. Prakash, J. V., Nauriyal, D. K., & Kaur, S. (2017). *Assessing Financial Integration of BRICS Equity Markets: An Empirical Analysis*. *Emerging Economy Studies*, 3(2), 127-138.
18. *RIS, South Asia Trade and Development Report*, Various Issues.
19. Robert. C. Feenstra. (2004). *Advanced International Trade, Theory and Evidence*, Published by Princeton University Press.
20. Robert. C. Feenstra, and Alan, M.Taylor. (2011). *International Economics*, 2nd edition, WorthPublishers.
21. Salvatore, D. (2013). *International Economics* (11th Edition). USA: Wiley.
22. Sandeep, K. (2015). Migration and Bilateral Trade Flows: Evidence from India and Oecd Countries. *Applied Econometrics and International Development*, 15(2), 179-196.
23. Singh, K., & Kaur, B. S. (2017). Whether FDI or Exports Enhance Innovation: Evidence from Indian Manufacturing Firms, 2001-2012. *Revista Galega de Economía*, 26(3), 19-32.
24. Stevens, Candice. (1993). *The Environmental Effects of Trade*, *The World Economy*, 16(4): 439-451.
25. UNCTAD, Trade and Development, Various Issues.
26. Impact of covid-19 pandameic on trade and development, unctad report [osg2020d1_en.pdf \(unctad.org\)](https://unctad.org/osg2020d1_en.pdf)
27. [COVID-19 and international trade Issues and actions - OECD \(oecd-ilibrary.org\)](https://oecd-ilibrary.org)
28. Bianchi, J. (2011). “Overborrowing and Systemic Externalities”, *American Economic Review*, 101, 3400-3426.
29. Mendoza, E. (2010). “Sudden Stops, Financial Crisis and Leverage”, *American Economic Review*, 100, 1941-1966.
30. Eggertsson, G. and P. Krugman. (2011). “Debt, Deleveraging and the Liquidity Trap: A Fisher-Minsky-Koo Approach”, *Quarterly Journal of Economics*.

Course Name: Economics of Infrastructure

Course Code: ECO.531

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: To acquire knowledge and understanding of key concepts, ideas and theories related to infrastructure and Economic development.
- CLO2: To acquire knowledge and understanding infrastructure financing, transport Telecommunication and Energy Infrastructure.
- CLO3: To understand the Irrigation, Banking and Financial Services, Education and Health infrastructure related concept
- CLO4: To understand the progress in infrastructure and contemporary policy issues in Indian perspective.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Infrastructure and Economic Development: –Infrastructure-Development Linkages; Infrastructure as a public good; Physical & Social Infrastructure; Special characteristics of public utilities; The peak-load, off -Load Problem, Economies of scale of joint supply; marginal cost pricing vs. other methods of pricing in public utilities; cross – subsidization – free prices, equity and efficiency.	CLO1

	Learning Activities: Lectures, discussion, brain-storming and Problem Solving.	
II 12 Hours	<p>Infrastructure Financing: Private vs. Public Sector Financing; privatization of infrastructure- capital market reforms, project financing, resource mobilization.</p> <p>Transportation: Modes, problems and importance of transport system; Demand for transport. Cost functions in the transport sector, Principles of pricing. Special problems of individual modes of transport;</p> <p>Telecommunication: Tele-density, Mobile and Internet, Social Media, rate making in telephone utilities. Digital Infrastructure.</p> <p>Energy: Generation, Distribution and Pricing, Alternative (Renewable and Unconventional) Sources of Energy, Energy Crisis in India.</p> <p>Learning Activities: Lectures, discussion, brain-storming and Problem Solving.</p>	CLO2
III 12 Hours	<p>Irrigation: Sources, distribution (disparity), efficiency in use, user charges.</p> <p>Banking and Financial Services: Spread and Performance of Banking Services, technology Interface of Financial Services; Financial Inclusion, reforms in banking system.</p> <p>Education: rate of return approach, capability approach, education financing, education planning, quality education.</p> <p>Health: Demand and supply of health care; financing of health care, Health Inequalities, Drinking Water and Sanitation.</p> <p>Learning Activities: Lectures, discussion, brain-storming and Problem Solving.</p>	CLO3
IV 10 Hours	<p>Policies and Performance analysis: Development of economic and social infrastructure since independence in India, PPP initiatives, National Education Policy, 2020. JAM Trinity, Jal Jeevan Mission, PMJAY, National Infrastructure Pipeline, PM GatiShakti.</p> <p>Learning Activities: Lectures, discussion, brain-storming and Problem Solving.</p>	CLO4

Transaction Mode: lecture, discussion, Presentation, Blended learning, Brain-storming.

Suggested Readings:

1. A Kapil (2010), Infrastructure And Economic Development, Deep & Deep Publications Pvt. Ltd
2. Aronofsky, J.A and M.Shakum, Eds, 1978, Energy Policy, North Holland, Amsterdam.
3. B.Jayarama Bhat, (ed.) (2008), Infrastructure Development in India, Published by the Author, Dos in Economics, Kuvempu University, Shankaraghatt-577 451, Shivamogga District
4. Berman, P. and M.E. Khan (1993), Paying for India's Health Care, Sage Publications, New Delhi.
5. Centre for Monitoring Indian Economy (1996) Indian Energy sector , CMIE, Mumbai.
6. Cockburn, J.M., Dissou, Y., Duclos, J.-Y., Tiberti, L. (Eds.) (2013) Infrastructure and Economic Growth in Asia, Springer International Publishing
7. Crew, M.A. and R.D.Kleindorfer, 1979, Public Utility Economics, Macmillan, London.
8. Dash,L.N (2007) ,Economics of Infrastructure: Growth and Development, Regal Publications
9. Dev, Mahendra .S (2018), India Development Reptot 2017, Oxford University Press, New Delhi

10. Indian Council of Social Sciences Research (ICSSR) (1976), Economics of Infrastructure, Vol. VI, New Delhi
11. Jha, R., M.N. Murty and S. Paul (1990), On Fixing Prices for Postal Services in India, National Institute of Public Finance and Policy, New Delhi
12. Khenfacy (1975) Transportation Economics Analysis, Lexington, T/outs.
13. Kleindorfer P.R, (1976) Economics of Infrastructure ICSSR Vol. VI, New Delhi
14. Kneafsey, J.T (1975), Transportation Economic Analysis, Lexington, Toronts
15. Macrakis, MS.Ed., 1974, Energy Demand Consevation and Institution Problems, Macmillan, London.
16. McMohan, W.W. (1999), Education and Development : Measuring the Social Benefits, Oxford niversity Press, Oxford.
17. Menberu Teshome (2010), Infrastructure and Development, VDM. Verlag
18. Munty, D (Ed). (1968) Transport: Selected Readings, Penguin, Harmonds Worth
19. National Council of Applied Economic Research (NCAER) (1996), India Infrastructure Report : Policy Implications for Growth and Welfare, NCAER, New Delhi.
20. Nelson, J.R., 1964, Marginal Cost Pricing in Practice, Prentice Hall, England-Cliffs.
21. Nordhavs, W.P., Ed., 1974, International studies of the demand for energy, North Holland, Amsterdam.
22. Norton, H.S. (1971), Modern Transport Economics, C.E. Merrill, London.
23. Pachauri, R.K., Ed., 1989, Energy Policy for India, Macmillan Co. of India, Delhi.
24. Panchamukh, P.R. (1980), Economics of Health: A Trend Report in ICSSR, A Survey of Research in Economics, Vol. VI, Infrastructure, Allied, Delhi.
25. Parikh, J. (1997) Energy Models for 2000 & Beyond, Tata McGraw - Hill, NewDelhi.
26. Parikh, K.S. (Ed.) (1999), India Development Report — 1999-2000, Oxford, New Delhi.
27. Ph. Nelson, J. (1964) Marginal Cost and Pricing in Practicing Prentice Hall Enlewood Cliff.
28. Philips, A and O.F. Williamson (Eds), 1967, Prices: Issues in Theory, Practice and Public Policy, University of Pennsylvania Press, Philadelphia.
29. Pratap, Kumar V., Chakrabarti, Rajesh (2017) Public-Private Partnerships in Infrastructure Managing the Challenges, Springer International Publishing.
30. Raghuram G & Rich J: Infrastructure Development and Financing (Mac Millan, New Delhi, 1999) · Turvey. R. (Ed.) (1968), Public Enterprises, Penguin, Harmondwoth.
31. Sampson.R., Asonofsky, J.A, Rao, M. Shakeen (Eds) : Energy Policy, North Holland, Amsterdam.
32. Tilak, J.B.G. (1994), Education for Development in Asia, Sage Publications, New Delhi
33. Turvey, R. and D. Anderson (1977), Electricity Economics, John Hopkins University Press, Baltimore.
34. Urvey, R. (Ed.) (1968), Public Enterprises, Penguin, Harmonds worth.
35. Welson, J.R. Marginal Cost Pricing in Practice. Prentice Hall
36. Woodhall, M. (1992), Cost Benefit Analysis in Educational Planning, UNESCO, Paris.

Course Name: Foundations of Economics

Course Code: ECO.532

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Recognize the basic structure of an economy,
- CLO2: Assess the functioning of markets in an economy,
- CLO3: Evaluate the effectiveness of economic policies, and
- CLO4: Apply theories and approaches of economics for economic development of country.

Units/Hours	Contents	Mapping with CLO
I 08 Hours	Economics: The production possibility frontier, Demand, Elasticity of demand, Supply, Market equilibrium, The free market system, Intervening in the market system, Costs: Short run and long run, Revenues, costs, and profits. Peer review of basic concepts.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 07 Hours	Market structure: Perfect competition, Monopoly, Oligopoly, Monopolistic competition and non-price competition, Monopsony and Oligopsony. The labour market, Introduction to macroeconomics, Macroeconomic Equilibrium in the economy	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 08 Hours	National income and the standard of living: Aggregate demand, aggregate supply, and the price level, Consumption, Investment, Fiscal policy, Money and monetary policy.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	Economic growth and the economic cycle: Unemployment, Inflation, Exchange rates, international trade, balance of payments, and protectionism, Protectionism and globalization.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Dewett, K. K. (2010). *Modern Economic Theory*. New Delhi: S. Chand & Company Ltd.
2. Gillespie, Andrew. (2014). *Foundations of Economics* (3rd Edition). Oxford University Press, Oxford.
3. Hoag, A.J and Hoag, J. H. (2010). *Introductory Economics* (4th Edition). Chennai: World Scientific Publishing Co. Pte. Ltd.
4. Lipsey, R.G., and Chrystal, K.A. (1995). *An Introduction to Positive Economics*, Oxford University Press.
5. Mankiw, N. (2014). *Principles of Economics* (3rd Edition). South Western: Mason.
6. Samuelson, P.A., and William Nordhaus. (2009). *Economics*, Tata Mc Graw-Hill.

Course Name: Introduction to Indian Economy**Course Code: ECO.533**

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Analyse the economic scenario of India,
- CLO2: Recognize the sectoral composition of Indian economy,
- CLO3: Assess the effectiveness of economic policies, and
- CLO4: Evaluate the foreign trade policies and achievements of India.

Units/Hours	Contents	Mapping with CLO
I 08 Hours	Basic features and problems of Indian Economy: Economic History of India; Nature of Indian Economy, demographic features and Human Development Index, Problems of Poverty & Inequality, Unemployment, Inflation, Black money in India. Economics history of India during colonial period. Peer review of problem in Indian economy.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 07 Hours	Sectoral composition of Indian Economy: Issues in Agriculture sector in India, Agriculture policies of India, Industrial development, small scale and cottage industries, industrial Policy, Public sector in India, service sector in India. Peer review of agriculture sector.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 08 Hours	Economic Policies: Economic Planning in India, NITI Aayog, monetary policy in India, Fiscal Policy in India, Centre-state Financial Relations. Modelling and Scaffolding.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	External sector in India: India's foreign trade value composition and direction, India Balance of payment since 1991, FDI in India, Impact of Globalization on Indian Economy, WTO and India. Modelling and Scaffolding. Impact of Covid-19 on Indian Economy.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Dutt Rudder and K.P.M Sunderam. (2017). *Indian Economy*. S Chand & Co. Ltd. New Delhi.
2. Mishra S.K & V.K Puri. (2017). *Indian Economy and –Its Development Experience*. Himalaya Publishing House.
3. Singh, Ramesh. (2016). *Indian Economy*, Tata-McGraw Hill Publications, New Delhi.
4. Dhingra, I.C. (2017). *March of the Indian Economy*, Heed Publications Pvt. Ltd.,
5. Karam Singh Gill. (1978). *Evolution of the Indian Economy*, NCERT, New Delhi
6. Kaushik Basu. (2007). *The Oxford Companion to Economics of India*, Oxford University Press.

Course Name: Agriculture Development and Management.

Course Code: ECO.534

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Identify the factors influencing agricultural development in India,
- CLO2: Assess the land reform policies in India,
- CLO3: Evaluate the efficiency of the public distribution system in India,
- CLO4: learn innovative ways to link farmers with new markets.

Units/Hours	Contents	Mapping with CLO
I 8 Hours	Agriculture Sector: Components; Its relative importance with other sectors; Features of Agriculture Sector in India; Focus on Agricultural Development after independence; Theories of Agricultural Economics, Green Revolution: Factors responsible, positive and negative impacts.	CLO1
	Learning Activities: Modelling and Scaffolding.	
II 7 Hours	Land Reforms, Agricultural Marketing: definition; types, problems; Agricultural Price Policy: Objectives, Minimum Support Price (MSP), India's recent Farm Act and its Impact.	CLO2
	Learning Activities: Peer review of agriculture problems.	
III 8 Hours	Public Distribution System (PDS): Evolution of Schemes, Functioning, Problems; Food Subsidy: Economic Costs and Central Issue Prices. Peer review of acts of market.	CLO3
	Learning Activities: Brain Storming and Problem Solving.	
IV 7 Hours	Managing Agriculture: role of agri-business, linking farmers with new markets, diversifying agriculture. Peer review of new policies.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, problem solving, group discussion & demonstration, self-study, blended learning.

Suggested Readings:

1. Acharya, S.S. and Agarwal, N.L. (2012). *Agricultural Marketing in India*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
2. Lekhi, R. K. And Singh, J. (2015). *Agricultural Economics: An Indian Perspective* Ludhiana: Kalyani Publishers.
3. Reddy, S.S., Ram, P.R, Sastry, T.V.N, Devi, I.B. (2015). *Agricultural Economics*. New Delhi, India: Oxford and IBH Publishing Co. Pvt. Ltd.
4. Soni, R. (2004). *Leading Issues in Agricultural Economics*, New Delhi: Vishal Publishing.

Course Name: Indian Economic Thought**Course Code: ECO.535**

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Understand the ancient Indian economic thoughts,
- CLO2: Understand the basic economic activities,
- CLO3: Understand the colonial economic thoughts, and
- CLO4: Understand the pre-plan period economic thoughts.

Units/Hours	Contents	Mapping with CLO
I 7 Hours	Definition and Scope of economic activities – Kautilya and Shukra; Basic assumptions – integral man, integrated rationality, Dharma, Purusarthas, Varnasharm; Human wants – nature, origin and kinds.	CLO1
	Learning Activities: Presentation, Peer learning, self-learning.	
II 8 Hours	Economic ideas of Manu, Shukra and Kautilya in field of consumption, production, exchange, distribution and public finance.	CLO2
	Learning Activities: Presentation, Peer learning, self-learning.	
III 7 Hours	Economic Thoughts of Swami Dayanand Saraswati, Dada Bhai Naoroji, Mahadev Govind Ranade, Gopal Krishna Gokale, R. C. Dutta and M. N. Roy.	CLO3
	Learning Activities: Presentation, Peer learning, self-learning.	
IV 8 Hours	Major economic thought of M. K. Gandhi, Vinoba Bhave, Dr. B. R. Ambedkar, Jawaharlal Nehru, Ram Mohan Lohia, Deen Dayal Upadhyaya, J. K. Mehta and Amartya Sen .	CLO4
	Learning Activities: Presentation, Peer learning, self-learning.	

Transaction Mode: lecture, discussion, Presentation, Blended learning, Brain-storming.

Suggested Readings:

1. Gupta, B. L. (1942). *Value and Distribution system in Ancient India*, Gian Publishing House.
2. Ganguli, B. N. (1977). *Indian Economic Thought: A 19th Century Perspective*, TMH, New Delhi
3. Kautilya (1951). *Arthshastra* translated by R. Sharma Shastri, Sahitya Academy of India
4. Kulkarni, S. A. (1987). *Ekatma Arthniti*, Suruchi Prakashan, New Delhi
5. Bokare. M. G. (n.d). *Hindu Economics*, Janki Prakashan, New Delhi
6. Dutta, R. C. (n.d). *Economic History of India*, Vol. I & II.
7. Gandhi, M. K. (1974). *India of My Dreams*, Navjivan Publishing House, Ahmadabad
8. Sen, A. K. (1981). *Poverty and Famines: An Essay on Entitlement and Deprivation*, Oxford University Press.

SEMESTER-III

Course Name: Economics of Growth and Development

Course Code: ECO.551

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Understand concepts of growth and development,
- CLO2: Understand the theories of growth and development
- CLO3: Understand the models of growth and development
- CLO4: Understand investment criterion for development, and techniques of economic production.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Growth and Development: Meaning and difference; Indicators of Growth – GDP and Per capita GDP; Indicators of economic development – PQLI, HDI, MPI, Problems of Economic Development; Poverty, Inequality and Sustainable Development – SDGs and Managing Sustainable Development.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 15 Hours	Theories of Development: Adam Smith, Ricardo, Malthus, Karl Marx, Schumpeter, and Rostow; Models of Economic Growth: Harrod-Domar, Solow, Robinson, Endogenous Growth Models.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 15 Hours	Dualism: Meaning, Characteristics and forms; Models of Dualistic growth: Lewis, Ranis and Fei, Jorgenson, and Todaro; Approaches to Development: Balanced Growth, Critical Minimum Effort, Big Push, Unbalanced growth.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 15 Hours	Investment Criteria: Choice of Techniques - labour, capital and intermediate; Vicious Circle of Poverty and Low Level Equilibrium Trap; Theories of Institutions and Development; Infrastructure and Economic Development. Peer discussion on Investment Criteria.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, problem solving, discussion & demonstration, blended learning.

Suggested Readings:

1. Acemoglu, D., and Robinson, J. (2006). *The Role of Institutions in Economic Growth and Development*, Chapter-5, Growth Commission Resources, Vol.3, World Bank
2. Chang, Ha-Joon. (2006). *Institutional Change and Economic Development*, United Nations University Press.
3. Eckaus, P.S. and Parikh, K.S. (2003). *Planning for Growth*. 2nd Revised Ed., MIT.
4. Ghatak, S. (2003). *Introduction to Development Economics*, Routledge.
5. Griffin, K. and J.L. Enos. (1970). *Planning Development*. Addison-Wesley.
6. Meier, G. M. and Rauch, J. E. (2006). *Leading Issues in Economic Development* (8th Edition). New York: Oxford University Press.
7. Ray, D. (2004). *Development Economics*, Seventh Impression. New Delhi: Oxford University Press.
8. Ronald, G. (2010). *Development Economics*, Pearson, India

9. Thirlwall, A. P. (2006). *Growth and Development* (8th Edition). New York: Palgrave Macmillan.
10. Todaro, M. P. and Stephen C. S. (2007). *Economic Development* (8th Edition). New Delhi: Second Impression, Pearson Education.

Course Name: Indian Economy

Course Code: ECO.552

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Elucidate the pattern and structure of Indian economy,
- CLO2: Focus on issues, challenges and policy responses in India,
- CLO3: Describe the role of infrastructure development in India, and
- CLO4: Assess the centre-state financial relations in India.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Economic Growth in India: Pattern and Structure; Agriculture – Pattern & structure of growth, major challenges, policy responses; Industry - Pattern & structure of growth, major challenges, policy responses; Services - Pattern & structure of growth, major challenges, policy responses. Impact of Covid-19 on Indian Economy.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 15 Hours	Rural Development: Issues, Challenges and Policy Responses; Urban Development – Issues, Challenges and Policy Responses; Poverty, Inequality and Unemployment; Reforms in Land, Labour and Capital Markets. Peer discussion on Various Issues of Rural Development.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 15 Hours	Infrastructure Development: physical and social; public-private partnerships; Natural Resources; Foreign capital in India; and Foreign Direct and Portfolio Investments.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 15 Hours	Centre-State Financial Relations: 15 th Finance Commissions of India; FRBM; Foreign Trade in Goods and Services; Balance of Payment; WTO and Indian Economy; Restrictions on Monopolies and Concentration of economic power; Competition Act 2002; Regional imbalances; Trends in migration; Economic Development and Environment Degradation; SHGs and Women empowerment. Understanding the various views on Various aspects of Centre State Financial Relations.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Banik, N. (2015). *The Indian Economy: A Macroeconomic Perspective*. Sage Publication.
2. Datt, G., and Majajan, A. (2019). *Indian Economy*. New Delhi: S. Chand and Co.
2. Journals Economic and Political Weekly, various issues. Millennial Asia, various issues.
3. Kapila, U. (2011). *Indian Economy: Performance and Policies*. Academic Foundation, India.
4. Singh, R. (2017). *Indian Economy*. New Delhi: Tata McGraw-Hill Education.
5. Verma, S. (2017). *The Indian Economy*. Unique Publishers, India.

Course Name: Research Methods in Economics

Course Code: ECO.553

L	T	P	Credit
4	0	0	4

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Identify an appropriate research problem, Formulate the research hypotheses,
- CLO2: Craft out a feasible research design,
- CLO3: Carry out data collection,
- CLO4: Analysis and interpretation, and prepare a research report.

Units/Hours	Contents	Mapping with CLO
I 15 Hours	Meaning and Types of Research, Scope of Research in Economics, Significance/Utility of Research in Economics, Qualities of a researcher, Research Approaches – Inductive and Deductive approaches; Research Process – Literature Review – traditional & thematic approaches, identification and selection of research problem, Hypothesis Formulation. Peer discussion and practices of literature survey and review.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 15 Hours	Research Design: Qualitative, Quantitative and Mixed Research Designs Sample Methods – Probability and non-probability sampling methods. Use of ICT in sampling.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 15 Hours	Data in Research: Sources of Data – Primary and Secondary; Methods of Primary Data Collection, Secondary Data Sources – India and abroad, Tools of primary data collection; Classification, Tabulation, and Presentation of data. Media Literacy and Tool design.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 15 Hours	Data Analysis: Qualitative, Quantitative and Mixed Methods; Interpretation of Results; Report Writing: Types of reports, Steps in report writing, Citation Styles, Bibliography and Appendix. Research and Publication Ethics: Research Misconducts – Falsification, Fabrication & Plagiarism (FFP); Publication Misconducts; Golden rules of research and publication ethics. Peer discussion, practices with software for plagiarism detection.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, problem solving, group discussion & demonstration, self-study, blended learning.

Suggested Readings:

1. Bruce, B. & Howard, L. (2014). *Qualitative Research Methods for the social sciences*, London: Pearson.
2. Bryman & Bell. (2018). *Business Research Methods*, Oxford University Press.
3. Flick, U. (2014). *An introduction to qualitative research*. Sage Publications.
4. Flick, U. (2015). *Introducing research methodology: A beginner's guide to doing a research project*. Sage Publications.
5. Gregory, I. (2005). *Ethics in research*. London: Continuum.
6. Gupta, S.L. & Gupta, H. (2011). *Research Methodology: Texts and Cases with SPSS*. Delhi: International Book House.

7. Guthrie, G. (2010). *Basic research methods: An entry to social science research*. SAGE Publications India.
8. Kothari, C. R. & Garg, G. (2014). *Research Methodology: Methods and Techniques*, New Age Publications.
9. Neuman, W.L. (2014). *Social Research Methods: Qualitative and Quantitative Approaches*, Pearson New International Edition.
10. Sana, L. (2019). *Text book of Research Ethics: Theory & Practice*, Springer.
11. Sjoberg, G. & Nett, R. (2014). *A methodology for social research*. Jaipur: Rawat Publications.
12. Stokes, P. & Wall, T. (2014). *Research Methods*, Plagave Publication.

Course Name: Dissertation Part-I

Course Code: ECO. 600

L	T	P	Credit
0	0	0	4

Course Learning Outcomes: On completion of this course, learning will be able to:

- CLO1: Identify research gaps on a selected research area
- CLO2: Summarize the findings of different research studies,
- CLO3: Formulate objectives, hypotheses/research questions,
- CLO4: Select appropriate research design and methods of research,
- CLO5: Develop tools for research, and
- CLO6: Prepare citations and references.

Contents of Research Proposal

A standard research proposal shall contain title/topic of research, conceptualization and contextualization of the study, rationale of the study, literature survey and review, research gaps, problem statement, objectives, hypotheses/research questions, materials and methods of research, sampling, tools and methods of data collection, and pilot study (if applicable).

Suggested Readings

1. Best, J.W. (1999). *Research in education*. New Delhi: Prentice Hall of India Pvt. Ltd.
2. Bogdan, R.C., & Biklen, S.K. (2014). *Qualitative research for education: an introduction to theory and methods*. New Delhi: PHI Learning Pvt. Ltd.
3. Chandra, S.S., & Sharma, R.K. (2010). *Research in education*. New Delhi: Atlantic Publications.
4. Guthrie, G.B. (2010). *Basic research methods: An entry to social science research*. New Delhi. Sage Publications India Pvt. Ltd.
5. Kaul, L. (1984). *Methodology of educational research*. New Delhi: Vikas Publications.
6. Kerlinger, F.N. (1986). *Foundations of behavioural research*. Fort Worth TX: Harcourt Bmce Jovanovich.
7. Kumar, R. (2011). *Research methodology*. New Delhi: Sage Publications India Pvt. Ltd.
8. Newby, P. (2014). *Research methods for education*. New York: Routledge Publications.
9. Pathak, R. P. (2015). *Methodology of educational research*. New Delhi: Atlantic Publications.
10. Richards, L., & Morse, J.M. (2013). *Qualitative methods*. U.S.A: Sage Publications, Inc.
11. Wellington, J. (2015). *Educational research*. USA: Bloomsbury Academic Publications.

Suggested web Resources

1. www.education.com
2. www.academia.edu
3. www.okstate.edu
4. www.aect.org
5. www.oxfordbibliographies.com
6. www.academia.edu
7. www.southalabama.edu

Evaluation Criteria: Research Proposal		
Pattern	Marks	Evaluation Method
Evaluation by Supervisor	50	Dissertation proposal and presentation
Evaluation by a committee consisting of HoD and Senior most Faculty of the Department	50	Dissertation proposal and presentation

Course Name: Punjab Economy

Course Code: ECO.554

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: understand nature and characteristics of Punjab economy,
- CLO2: understand the patterns of structural changes in Punjab economy,
- CLO3: understand the problems and prospects of Punjab economy,
- CLO4: understand the patterns of economic development in Punjab.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Structural Changes and Economic Development in Punjab's Economy: Major challenges and potentials; Structure and Production of Economic Activities; Agriculture in Punjab: structure of agriculture in Punjab, Growth and Productivity.	CLO1
	Learning Activities: Peer review and discussion, brain-storming and problem solving.	
II 11 Hours	Green Revolution: Progress, Performance and Implications; Agricultural Diversification: Rationale, Constraints and Prospects; Dairy Farming and Other Allied Activities; Agriculture Credit and Marketing; Agrarian crisis-nature, effects and measures, Land Reforms in Punjab.	CLO2
	Learning Activities: Peer review and discussion, brain-storming and problem solving.	
III 12 Hours	Industry in Punjab: Structure of Industry in Punjab, MSME- Role, Problem and Future Prospects; State and Industrial Development; Agro-based Industries – Nature, growth, problem, and prospects; Service Sector in Punjab: Nature, growth, problem, and prospects.	CLO3
	Learning Activities: Peer review and discussion, brain-storming and problem solving.	
IV 10 Hours	Social Sector in Punjab: Education, Health, Sanitation and Water Supply, Social Security, Employment, Migration, and Welfare Schemes; Banking and Finance – Nature, growth, problems and prospects.	CLO4
	Learning Activities: Peer review and discussion, brain-storming and Problem Solving	

Transaction Mode: Lecture, case study, discussion, field visits and demonstration, blended learning.

Suggested Readings:

1. Bawa R. S., P. S. Raikhy & Dhindsa, P. (2001). *Globalization and Punjab Economy*. India: Punjab School of Economics, (DRS-UGC), Guru Nanak Dev University.
2. Bawa, R. S. & Raikhy, P. S. (2000). *Punjab Economy: Emerging Issues*. India: South Asia Books G.N.D.U.
3. Bhalla, G.S., Chadha, G. K., Kashyap, S.P. and Sharma, R.K. (1990). *Agricultural Growth and Structural Changes in the Punjab Economy: An Input-Output Analysis*, IFPRI and CSRD, JNU.
4. Chadha, G. K. (1986). *The State and Rural Transformation: The Case of Punjab, 1950-85*, Sage Publication.
5. Deshpande, R. S. & Arora, S. (2010). *Agrarian Crisis and Farmer Suicides*. New Delhi: SAGE Publications India Private Limited.
6. Dhesi, A. S. and Singh, G. (2007). *Rural Development in Punjab: A Success Story Going Astray*, Routledge
7. Dutt, P. S. and Gill, S.S. (1995). *Land Reform in India: Intervention for Agrarian Capitalist Transformation in Punjab and Haryana*, Sage Publication
8. Hoover, F.M. (2010). *An Introduction to Regional Economics*. Ryerson: McGraw-Hill.
9. Johar, R.S. & Khanna, J. S. (1983). *Studies in Punjab Economy*. Guru Nanak Dev University.
10. Kaur, Paramjit. (2013). *Punjab Economy: Performance and Prospects*, Regal Publisher.
11. Singh, I., Singh, S. and Singh, L. (2014). *Punjab's Economic Development in the Era of Globalization*, L G Publishers.
12. Singh, L. & Bhango, K.S. and Sharma, R. (2016). *Agrarian Distress and Farmer Suicides in North India*, Routledge India
13. Singh, L. and Singh, N. (2016). *Economic Transformation of a Developing Economy: The Experience of Punjab, India*, Springer.
14. Singh, L., & Singh, S. (2002). *Deceleration of economic growth in Punjab: Evidence, explanation, and a way-out*. *Economic and Political Weekly*, 37(6), 579-586.

Course Name: Environmental Economics and Policy

Course Code: ECO.555

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Develop linkages between environment and economic development,
- CLO2: Explicate the theories of environmental economics,
- CLO3: Prepare environmental accounting,
- CLO4: Focus on global and regional environmental issues.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Environment and Development: Economics and the Environment, Evolution and Growth of Environmental Economics, Relation between Environment and Growth, Environmental Kuznets hypothesis.	CLO1
	Learning Activities: Peer discussion and case analysis, brain-storming and problem solving	

II 11 Hours	Basic Concepts and Theories: Public Goods and Externalities, Common Property Resources, resource degradation and market efficiency. Coase theorem, social cost-benefit analysis, cost effective analysis for environment protection, Environmental Good's Demand and its Revealed Preference Methods.	CLO2
	Learning Activities: Brain storming and case analysis, brain-storming and problem solving	
III 12 Hours	Environmental Valuation, Accounting and Management: Types of environmental values, Evolution of Environmental Accounting, Features of Integrated Environmental and Economic Accounting, Degradation of land, water resources and forests; Alternative Energy Sources and Environment. Choice Experiments	CLO3
	Learning Activities: Understanding various concepts and their peer review, brain-storming and problem solving	
IV 11 Hours	Global and Regional Issues: Poverty, population and environment, global agreements on environment, political economy of sustainable development, Environment under WTO regime. Climate Change and the Paris Agreement, Millennium Development Goals and India, Mechanism for environment regulation in India, environmental laws and their implementation, Policy instruments for controlling pollution environmental standards, forestry policy. Water Depletion vs. Water Logging, Use of Chemicals in Agriculture and Pollution; Agroforestry as an option for Diversification in Punjab, Use of Innovative Technologies for minimizing environmental degradation.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, problem solving, group discussion.

Suggested Readings:

1. Berck, P. (2015). *The Economics of the Environment*. New Delhi: Pearson India.
2. Freeman, A. (2014) *The Measurement of Environmental and Resource Values: Theory and Methods*, RFF Press.
3. Haab and McConell, (2002). *Valuing Environmental and Natural Resources: The Econometrics of Non-Market Valuation (New Horizons in Environmental Economics)*, Edward Elgar .
4. Jeroen C.J.M. van den Bergh(1999), *Handbook of Environmental and Resource Economics*, Elgar online.
5. Kolstad, C.D. (2011). *Intermediate Environmental Economics*. New Delhi: Oxford University Press.
6. Kumar, Pushpam. (2009). *Economics of the Environment and Development*. New Delhi: Ane Book.
7. Muthukrishna, S. (2010). *Economics of Environment*. New Delhi: Phi learning Pvt. Ltd.
8. Maler Karl-Goran and Jeffrey R Vincent. (2003). *Handbook of Environmental Economics*. North-Holland, 2003.
9. Singh, Katar and Shishodia, Anil. (2007). *Environmental Economics: Theory and Applications*. New Delhi: Sage Publications.
10. Stavins Robert N.(2000). *Economics of the Environment: Selected Readings*. Fourth Edition. W.W. Norton and Company. 2000.

Course Name: Public Economics

Course Code: ECO.556

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Examine the role of Government in changing perspective,
- CLO2: Assess the efficiency of tax system in India,
- CLO3: Evaluate the annual Government budget in a country,
- CLO4: Comprehend the economic functions of government in an economy.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Role of Government in Changing Perspective: Fiscal Functions of the Government; Classification of Goods: Public Expenditure: Meaning and Classification, Theories of Public Expenditure – Maximum Social Advantage, Normative and Positive Theories, Growth in Public Expenditure, Canons of Public Expenditure, Effects of Public Expenditure on Production, Distribution and economic growth, Criteria for evaluation of public investment projects – social cost-benefit analysis.	CLO1
	Learning Activities: Brain-storming and problem solving	
II 11 Hours	Public Revenue: Sources of Revenue, Taxation – characteristics of a good taxation system, Canons of taxation, direct vs. indirect taxes, principles of taxation, effects of taxation, taxable capacity, impact and incidence of taxation; Tax structure in India and Recent Reforms - GST. Peer review of Public revenue concepts.	CLO2
	Learning Activities: Brain-storming and problem solving.	
III 11 Hours	Public Debt: Sources of Public Debt, Burden of public debt – theories, effects of public debt, methods of debt redemption, Public Debt Management in India. Public Budget - Concept of public budget, types of public budget, theories of public budgeting. peer discussion and case analysis.	CLO3
	Learning Activities: Brain-storming and problem solving.	
IV 11 Hours	Federal Finance: principles and problems of Federal finance – centre-state financial relations, 14 th Finance Commission; Fiscal Policy: meaning and objective, fiscal multipliers, compensatory fiscal policy, functional finance approach, fiscal policy for inflation, full employment and economic growth.	CLO4
	Learning Activities: Peer discussion and case analysis, brain storming and problem solving.	

Transaction Mode: Course content will be delivered using presentation, lectures, case study, debates, brain-storming, simulation, role playing, field visits and direct observation, blended learning.

Suggested Readings:

1. Backhaus, J. G. & Wagner, R. E. (2004). *Handbook of Public Finance*, Springer, US.
2. Bhatia, A. K. (2013). *Public Economics*, Wisdom Press, India.
3. Choudhary, R. K. (2014). *Public Finance and Fiscal Policy*, Kalyani Publishers, New Delhi
4. Dalton, H. (1922). *Principles of Public Finance*, Allied Publishers, Reprinted by Routledge (2009).
5. Garg, R. & Garg, S. (2017). *Handbook of GST in India*, Bloomsbury India Professional.

6. Gupta, J. R. (2011). *Public Economics in India: Theory and Practice*, Atlantic Publishers.
7. Jha, Raghendra. (2010). *Modern Theory of Public Finance*, New Age International Pvt. Ltd. India.
8. Musgrave, R. A. (1959). *The Theory of Public Finance*, MG-Hill Publication, New York (Available in National Digital Library for Free Download).
9. S. Singh, L. Singh and K. Vatta (2021), *COVID-19 Pandemic and Economic Development: Emerging Public Policy Lessons for Indian Punjab*, Palgrave Macmillan Publishers

Course Name: Globalization and Development

Course Code: ECO.557

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, students will be able to:

- CLO1: Asses the process of globalization,
- CLO2: Correlate the process of globalization with the functioning of transnational corporations,
- CLO3: Evaluate the regional and multilateral agreements under globalization, and
- CLO4: Critically assess the process of economic development in the perspective of globalization.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Issues in Globalization: Alternative Perspectives on its Nature and Character; Critical Dimensions: Economic, Political, Strategic, Cultural and Informatics, Globalization and the new global economy; Globalization as representing the triumph of free market capitalism; Continuity and change in the world economy since the 1970s; Economic Policy Changes in the Advanced and Developing Nations and Developments in Communication Technology. Covid-19 and Future of Globalisation.	CLO1
	Learning Activities: Peer discussion and case analysis, brain-storming and problem solving	
II 11 Hours	Transnational Corporations and the Globalization Process: TNCs and FDI and technology flow; Changing patterns of international trade: intra-firm and inter-firm trade; international production networks; Structure and Working of the International Capital market: the main actors and instruments of international asset transaction; offshore banking; Eurocurrencies and their trading; global finance and hot money flows. Pandemic Covid-19 and its impact on Global Economy.	CLO2
	Learning Activities: Brain storming and case analysis, brain-storming and problem solving	
III 11 Hours	Regional and multilateral agreements: Brief History of Multilateral Institutions, their Structure and Working: International Monetary Fund and the World Bank; The World Trade Organization: Organizational structure and decision-making process and its evolving role; Questioning the benefits of economic integration: Inequality and instability in global economy.	CLO3
	Learning Activities: Peer discussion and case analysis, brain storming and problem solving	
IV 11 Hours	Agricultural Globalization and Developing Countries: Industry and Services in the globalization process: Labour, Migration and	CLO4

	Outsourcing; Globalization, State, Sovereignty and the Civil Society; The World Social Forum.	
	Learning Activities: Peer review of various problems, brain storming and problem solving.	

Transaction Mode: Lecture, problem solving, group discussion.

Suggested Readings:

1. Bhatia, S.K. (2017). *Brexit and India: Analyzing the Implication* (Eds.). New Delhi Publishers.
2. Daniels, P.W., and Lever, W.F. (1997). *The Global Economy in Transition*. Harlow:
3. Edwards, M., and Gaventa, J. (2001). *Global Citizen Action: Perspectives and Challenges*. Boulder Colo: Westview Press.
4. Held, D., McGrew, A., Goldblatt, D., and Perraton, J. (1999). *Global Transformation: Politics, Economics and Culture*. Cambridge: Polity Press.
5. Herman, Edward and Robert W McChesney, *Globalization of culture* (New Delhi: Madhyam Books 2003)
6. Hoogvelt, A. M. M. (1997). *Globalisation and the Postcolonial World: The New Political Economy of Development*. Palgrave Macmillan.
7. Jackson, H. J. (1998). *The World Trade Organisation*. London: The Royal Institute of International Affairs.
8. James, P., and Veltmeyer, H. (2001). *Globalisation Unmasked*. London: Zed Books.
9. Khor, K. P., and Khor, M. (2001). *Rethinking Globalisation: Critical Issues and Policy Choices*. London: Zed Books.
10. Kofman, E., and Youngs, G. (2001). *Globalisation: Theory and Practice (2Ed.)*. London: Pinter.
11. Munck, R. (2003). *Globalization and Labour: The New Great Transformation*. Zed Books Ltd.
12. Nayyar, D. (2002). *Governing Globalisation: Issues and Institutions*. Delhi: Oxford University Press.
13. Robert. C. Feenstra, and Alan, M.Taylor. (2011). *International Economics*, second edition WorthPublishers.
14. Robert. C. Feenstra. (2004). *Advanced International Trade, Theory and Evidence*, Published by Princeton University Press.
15. Sailors, J. W., Qureshi, U. A., and Cross, E. M. (1973). *Empirical Verification of Linder's Trade Thesis*. Southern Economic Journal, 262268.
16. Sakamoto, Y. (1994). *Global Transformation: Challenges to the State System*. Tokyo: United Nations University Press.
17. Salvatore, D. (2013). *International Economics* (11th Edition). USA: Wiley.
18. Sandeep, K. (2015). *Migration and Bilateral Trade Flows: Evidence from India and OECD Countries*. *Applied Econometrics and International Development*, 15(2), 179-196.
19. Scholtze, J.A. (2000). *Globalisation: A Critical Introduction*. Basingstoke: Palgrave.
20. Stiglitz, J. (2002). *Globalization and its Discontents*. London: Penguin.
21. UNCTAD, Trade and Development, Various Issues.
22. White, B., Little, R., and Smith, M. (2001). *Issues in World Politics (2Ed.)*. Basingstoke: Palgrave.
23. Williams, M., Goetz, A. M., O'Brein, R., and Scholte, J. A. (2000). *Contesting Global Governance: Multilateral Economic Institutions and Global Social Movements*. Cambridge: Cambridge University Press.

Course Name: Demography

Course Code: ECO.558

L	T	P	Credit
3	0	0	3

Course Learning Outcomes:

On completion of this course, learners will be able to:

- CLO1: Explain the theories of demographic transition,
- CLO2: Prepare projections for population growth,
- CLO3: Evaluate the population policies in India, and
- CLO4: Explain the dynamics of population change.

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Basic Concepts, Indicators and Theories: Meaning and Scope of demography, Population and Economic Development; Vital Rates – Fertility, Mortality, Age Pyramids, and Life Tables; From Development to Population; Theory of Demographic Transition; Historical Trends; Adjustment of Birth and Death Rates; Household Choice Models; From Population to Development; Malthusian View; Growth Impact; Population and Environment; Population and Innovation; Markets and Inputs.	CLO1
	Learning Activities: Peer discussion and case analysis, brain-storming and problem solving.	
II 11 Hours	Population Projection: National Projection of Total Population and Age-Sex composition – Mathematical Methods and Cohort-Component Methods; Methods of National & Sub-National Projection of Population; Projection of the Economically Active Population; Concepts of Stable, Stationary, and Quasi-Stationary Population.	CLO2
	Learning Activities: Peer review of various problems, brain storming and problem solving.	
III 11 Hours	Population and Population Policy in India: Major demographic features of India's population – Spatial, Age, Sex, Structure of Indian Population; Birth rate, Death rate, Life Expectancy & Infant Mortality; Trends & Patterns; Evaluation of family welfare programmes in India - National Population Policies since independence.	CLO3
	Learning Activities: Peer discussion and case analysis, brain storming and problem solving.	
IV 11 Hours	Aging and Demographic Change: Aging Process, Ageing around the world, The impact of demographic changes, The changing balance of age groups, Social, Economic, and Demographic Changes among the Elderly, Dependency ratio, Generational accounting and Pensions crisis; Social Groups and Family Size.	CLO4
	Learning Activities: Peer discussion and case analysis, brain storming and problem solving.	

Transaction Mode: Lecture, problem solving, group discussion.

Suggested Readings:

1. Bogue, D.J. (1971). *Principles of Demography*, John Wiley, New York.
2. Bose, A. (1996). *India's Basic Demographic Statistics*, B.R. Publishing Corporation, New Delhi
3. Choubey, P. K. (2000). *Population Policy in India*. New Delhi: Kanishka Publications.

4. Cochrane, S. H. (1975). Children as by-products, investment goods and consumer goods: a review of some micro-economic models of fertility. *Population Studies* 29(3): 373-390.
5. Dandekar, V.M. (1998). *Population Front of India's Economic Development. Economic and Political Weekly.* 22(17): 837-842.
6. Dave, P., & Mehta, P. (2008). *Mental Health and Aging Women: Important Correlates.* New Delhi: Gyan Publishing House.
7. Ehsanul, H. (2007). *Sociology of Population.* New Delhi: Macmillan.
8. Hustedde, Ronald J., Ron Shaffer and Glen Pulver. (2005). *Community Economic Analysis: A How to Manual.* Rev. ed
9. Ishwar M. (2001). *Ageing and Human Development: Global Perspectives.* New Delhi: Rawat.
10. Novell, C. (1988). *Methods and Models in Demography,* Bellhaven Press, London.
11. Simon, J. L. (1992). *Population and Development in Poor Countries.* Princeton: Princeton University Press.
12. Srinivasan, K. and A. Shariff (1998). *India: Towards Population and Demographic Goals,* Oxford University Press, New Delhi.
13. Srinivasan, K., (1992). *Basic Demographic Techniques and Applications,* Sage Publications, New Delhi.
14. Weil, David N. (1997). "The Economics of Population Aging" in Mark R. Rosenzweig and Oded Stark, eds., *Handbook of Population and Family Economics,* New York: Elsevier, 967-1014.

Course Name: Advanced Econometrics

Course Code: ECO.559

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, students will be able to:

- CLO1: Understand the basic of time series regression models and model fitting using data,
- CLO2: Familiar with regression modelling using qualitative dependent variables,
- CLO3: Perform dynamic regression modelling using Panel/Pooled data.
- CLO4: Build up software skills in data analysis to carry out economic and business research.

Units/Hours	Contents	Mapping with CLO
I 11 Hours	Time Series Econometric Modelling: Approaches to time Series Forecasting; Univariate Time series modelling: AR, MA, ARMA and ARIMA models; Box-Jenkin Methodology; Multivariate Time series modelling: OLS, Spurious Regression, Co-integration, Causality analysis (Granger and Sim); Granger representation theorem; Vector Auto-regression (VAR) and Vector Error Correction Models (VECM); Volatility modelling: ARCH and GARCH models. Time series model fitting using country and firm level data. Learning Activities: Lectures, Problem Solving and Practical.	CLO1
II 11 Hours	Limited Dependent variable Models: Nature of qualitative response Models; Linear Probability Model and its applications; Simple and Multinomial Logit models, and Simple and Bivariate Probit Models:	CLO2

	Assumptions, Estimation (grouped and un-grouped models), diagnostic checking, interpretations and applications; Tobit model: Assumptions, Estimation, diagnostic checking interpretations and applications; Conditional logit and probit models; Instrumental variable logit and probit models and their applications. Introduction to quintile regression. Learning Activities: Lectures, Problem Solving and Practical.	
III 11 Hours	Panel data modelling: Basics of panel data analysis and Panel Unit root tests; Estimation of panel data regression models: Pooled regression method, fixed effect Approach, and Random effect models; Dynamic Panel data modelling; Panel co-integration, Panel Vector Auto-regression (VAR) and Panel Vector Error Correction Models (VECM), Fully Modified Ordinary Least Square (FMOLS) regression, Dynamic OLS models; Limited dependent variable models using Panel data; GMM estimations. Learning Activities: Lectures, Problem Solving and Practical.	CLO3
IV 12 Hours	Applications: Introduction to E-views, STATA and R; Time series econometric modelling using E-views; Estimation of Limited Dependent Variable Models using STATA; Panel Data Modelling using E-views, STATA and R. Learning Activities: Demonstration, Hands on with econometric software.	CLO4

Transaction Mode: ClassLecture, Blended learning, Hands on with econometric software like STATA, e-views & R.

Suggested Readings:

- Baltagi, B. (2008). *Econometric analysis of panel data*. John Wiley & Sons.
- Brooks, C. (2014). *Introductory econometrics for finance*. Cambridge university press.
- Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using stata* (Vol. 2). College Station, TX: Stata press.
- Enders, W. (2008). *Applied econometric time series*. John Wiley & Sons.
- Gujarati, D. (2014). *Econometrics by example*. Palgrave Macmillan.
- Gujarati, D. N. & Sangeetha (2007). *Basic econometrics, 4e*, 304-331.
- Hall, R., Lilien, D., Sueyoshi, G., Engle, R., Johnston, J., & Ellsworth, S. (1999). EViews manual. *Quantitative Micro Software Inc*, 312.
- Hsiao, C. (2014). *Analysis of panel data* (No. 54). Cambridge university press.
- Kawakatsu, H. (1998). *A computer handbook using EViews: to accompany Econometric models and economic forecasts, Pindyck and Rubinfeld*. McGraw-Hill College.
- Long, J. S., & Freese, J. (2006). *Regression models for categorical dependent variables using Stata*. Stata press.
- Madala, G. S. (1968). *Limited Dependent and Qualitative Variables in Econometrics*. Cambridge: Cambridge University Press
- Madala, G. S. (2009). *Introduction to Econometric*.
- Stata, A. (2015). Stata Base Reference Manual Release 14.
- Venables, W. N., Smith, D. M., & R Development Core Team. (2004). *An introduction to R*.
- Wooldridge, J. (2009). Advanced panel data methods. *Introductory econometrics: a modern approach*. Mason: South-Western Cengage Learning, 489.
- Wooldridge, J. (2009). Instrumental variables estimation and two stage least squares. *Introductory Econometrics: A Modern Approach*. Nashville, TN: South-Western.
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT press.

18. Zucchini, W., MacDonald, I. L., &Langrock, R. (2016). *Hidden Markov models for time series: an introduction using R* (Vol.150). CRC press.

Web links:

1. <https://davegiles.blogspot.com/>
2. <https://www.stata.com/links/>
3. <https://www.eviews.com/Learning/index.html>
4. <https://campus.datacamp.com/courses/introduction-to-the-tidyverse/data-wrangling-1?ex=1>

Course Name: Economics of Healthcare: Theory & Policy

Course Code: ECO.560

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Create awareness on the health policy and health care,
- CLO2: Develop an understanding of economic principles as applied to health and health care,
- CLO3: Elucidate the market and market failures in the health and health care
- CLO4: Enlighten on the Health care reforms and policies

Units/Hours	Contents	Mapping with CLO
I 12 Hours	Introduction to Health Economics: What is the Health Economics, the relevance of health economics: health care’s share in GDP, does economics apply to health and health care? is health care difference, The role of economists in the health sector. health and health care, Health care as an economic commodity, the nature of health care: need versus demand. Economic Evaluation of Health Care	CLO1
	Learning Activities: Brain-storming and problem solving	
II 11 Hours	Microeconomic Tools for Health Economics: Scarcity and production possibility frontier, Demand for health and health services, shifts in demand for health care, Production function health and health care, Cost functions and economies of scale and scope, Cost studies including hospital cost analysis, Efficiency measurement of hospitals (including DEA, etc),The Demand for Health Capital: Labour–Leisure Trade-Offs, The Grossman Model. Health Insurance: The demand and Supply of Health insurance, Moral hazard, and adverse selection. Asymmetric information, an agency relationship	CLO2
	Learning Activities: Brain-storming and problem solving.	
III 11 Hours	Market and Market Failures in Health and Healthcare: Market structures, Market failures, and Government, the hospital as an economic agent, Supplier induced demand. Pharmaceutical Industry: Drug pricing and Profits, Research and Development (R&D) and Innovation, New drug, and Health care spending.	CLO3
	Learning Activities: Brain-storming and problem solving.	

IV 11 Hours	Health and Development & Health Policy and Reforms Measures of health and development, Disease profiles of rich and poor countries, Health and growth, Health expenditure and health, Linkage between poverty and health. Health Policy and Reforms: Epidemics and Epidemic acts in India. National Health Policy 1983, 2002 and 2017. Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB PM-JAY), India's Role in the combat of Covid-19 through Vaccine. Health Sector Strategic Plan, Need for and concept of health sector reform (HSR).	CLO4
	Learning Activities: Peer discussion and case analysis, brain storming and problem solving.	

Transaction Mode: Presentation, lectures, case study, debates, brain-storming, simulation, role playing, field visits and direct observation, blended learning.

Suggested Readings:

1. Charles E. Phelps (1997). *Health Economics*. New York. Harper Collins.
2. Clewar, A and Perkins, D. (1998). *Economics of Health Care Management*. London: Prentice-Hall.
3. Culyer AJ and Newhouse JP (2000) Handbook of Health Economics, North Holland, Volumes 1A & 1B.
4. Donaldson, C. and Gerard, K. (1993). *Economics of Health Care Financing*. Macmillan. Economics Issues in Health Care Series. ISBN: 0-333-53870-6. #1
5. Donaldson, C. and K Gerard, (1993), *The Economics of Health Care Financing*, Macmillan.
6. Drummond, M.F. G. L. Stoddard and G. W. Torrance (1987) *Methods for the economic evaluation of health care programs*. Oxford Medical Publications. Oxford: OUP.
7. Feldstein, Paul J (1983), *Health Care Economics*, John Wiley and Sons, New York (Second Edition or the latest edition).
8. Folland, S., Goodman, A. and Stano, M. (2000). *The Economics of Health and Health Care*. Third Edition. Prentice-Hall. ISBN: 0-13-0122157.
9. Lilienfeld, A. M. and D. E. Lilienfeld, (1980), *Foundations of Epidemiology*. Oxford University Press. (Second Edition or latest).
10. McGuire, A., Henderson, J., and Mooney, G. (1992). *The Economics of Health Care*. Routledge. ISBN: 0-415-06586-0.
11. McGuire, A., J. Henderson and G. Mooney (1988), *The Economics of Health Care*. RKP.
12. Paul J. Feldstein (1993). *Health Care Economics*, 4th Edition, Delmar Publishers Inc.
13. Peter Zweifel and Friedrich Breyer (1997). *Health Economics*, Oxford University Press. This is an advanced text.
14. Philip Jacobs (1991). *The Economics of Health and Medical Care*. Third Edition, An Aspen Publication.
15. Rice, T. (1998). *The Economics of Health Reconsidered*. Chicago: Health Administration Press

Course Name: Managerial Economics**Course Code: ECO.561**

L	T	P	Credit
3	0	0	3

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Illustrate the central decision problems managers face,
- CLO2: Provide the economic analysis to managerial decisions,
- CLO3: Use economic methods in managerial decision making, and
- CLO4: Apply relevant principles and techniques to real-life situations involving managerial decision making

Units/Hours	Contents	Mapping with CLO
I 7 Hours	Introduction to Managerial Economics: Nature, Scope and Methods of Managerial Economics; Theory of the Firm; Introduction to Economic Decision Making – Examples of Managerial Decisions, Steps to Decision Making, Private and Public Decisions.	CLO1
	Learning Activities: Case analysis, Brain-storming and problem solving	
II 14 Hours	Decisions within Firms – Optimal Decisions Using Marginal Analysis, Demand Analysis and Optimal Pricing, Demand Estimation and Forecasting, Production Decisions, Marginal Analysis of Production, Cost Analysis and Optimal Decisions, Cost Estimation.	CLO2
	Learning Activities: case analysis, Brain-storming and problem solving.	
III 12 Hours	Competing within Markets and Pricing – Perfect Competition and Market Efficiency, Monopoly and Monopolistic Competition, Oligopoly: Price, Quantity and Other Competitions, Game Theory and Competitive Strategy.	CLO3
	Learning Activities: Case analysis, Brain-storming and problem solving.	
IV 12 Hours	Decision Making Applications – Decision Making Under Risk and Uncertainty; Problem Solving Approach of Managerial Economics – Pricing Strategy, Investment Analysis, Government and Managerial Policy.	CLO4
	Learning Activities: Peer discussion and case analysis, brain storming and problem solving.	

Transactions Mode: Lecture, Problem Solving, Case Analysis, Brainstorming, Group Discussion, Peer Learning

Suggested Readings:

1. Allen, W. B., Weigelt, K., Doherty, N., & Mansfield, E. (2012). *Managerial Economics: Theory, Applications and Cases*, W. W. Norton & Co. Inc., 8th Edition
2. Froeb, L. M., McCann, B. T., Shor, M. & Ward, M. R. (2018). *Managerial Economics: A Problem Solving Approach*, Cengage Learning, 5th Edition
3. Graham, R. (2013). *Managerial Economics for Dummies*, John Wiley & Sons Inc. 3rd Edition
4. Wilkinson, N. (2005). *Managerial Economics: A Problem-Solving Approach*, Cambridge University Press, 1st Edition
5. William F. Samuelson & Marks, Stephen G. (2012). *Managerial Economics*, John Wiley & Sons Inc., 7th Edition

Course Name: Data Analysis Using SPSS**Course Code: ECO.562**

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Perform data entry, coding and recoding process in SPSS,
- CLO2: Generate of tables and figures and performing statistical tests using SPSS,
- CLO3: Lean the process of regression modelling and diagnostic checking using SPSS,
- CLO4: Execute the process of advanced regression modelling with qualitative data using SPSS.

Units/Hours	Contents	Mapping with CLO
I 07 Hours	Introduction and Data Management: Introduction to SPSS; Getting familiar with the interface; Importing data from Excel; Creating a new data file (entering survey data); Data preparation and exploratory data analysis; Defining variables; dealing with missing values; data manipulation- data transformation; syntax files and scripts; output management. Generating and transforming variables. Basic tabs and data entry exercises.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 08 Hours	Descriptive Analysis of Data: Descriptive statistics for two or more variables; Creating and editing charts for two or more variables; Inferential statistics for the mean and the median; One-sample t-test; T-test and Mann-Whitney U Test; Paired-difference t-test & Wilcoxon Signed-Rank Test; Power Analysis for t-test; One-sample binomial test; One-sample Chi-square; Chi-Squared Test of Independence; Power Analysis for the proportion. One-way and two-way ANOVA. Generation of figures and Tables, and Hypothesis testing procedures.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 08 Hours	Correlation and Regression Analysis: Computation of Pearson's and Spearman's rank correlation coefficient; Partial and multiple correlation coefficient; Simple Linear regression model and multiple regression models; Regression diagnostic tests: Multicollinearity; Heteroscedasticity and Autocorrelation detections and remedial measures; and detecting the presence of outliers. Estimating correlation, simple regression models and diagnostic checking using SPSS.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	More topics on Regression Analysis: Dummy variable (independent) regression models; Limited dependent variable regression models: Logit; and Probit models; Basic time series regression models: stationarity checking and fitting univariate and multivariate time series regression models; and Basic Panel data regression models: fixed effect and random effect models. Estimating advanced regression models using both quantitative and qualitative data using SPSS.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture, demonstration, and hands on practices using SPSS in the Computer Lab.

Suggested Readings:

1. B. S. Everitt. (2004). *A handbook of statistical analyses using SPSS*. CRC. London New York Washington, D.C.
2. Landau Field A. (2013). *Discovering Statistics Using SPSS, Fourth Edition*, SAGE.
3. Pallant, J. (2010). *SPSS Survival Manual*. McGraw Hill, Berkshire, England.

Course Name: Decision Making Skills**Course Code: ECO.563**

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Describe concept and nature of decision making,
- CLO2: Discuss decision making process,
- CLO3: Apply decision making techniques in real life situation,
- CLO4: Make effective decisions in real life situation.

Units/Hours	Contents	Mapping with CLO
I 07 Hours	Introduction to decision making: Decision making, Nature of decision making, Importance of making good decisions, Relevant cases.	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 08 Hours	Decision making process: Principles of decision-making, Steps of decision making, Relevant cases.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 08 Hours	Decision making techniques: Decision making techniques, making in relation to problem solving, Decision making in relation to creativity, Relevant cases.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	Effective decision making: Problems in decision making, Developing competencies and skills required for effective decision making, Decisions regarding the career, Relevant cases.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Presentation, lectures, case study, debates, brain-storming, simulation, role playing and direct observation, blended learning.

Suggested Readings:

1. Edwards, W., & Winterfeldt, D. von. (1986). *Decision analysis and behavioral research*. Cambridge University Press.
2. Adair, J. (2007). *Decision making and problem solving strategies*. Kogan Page Limited
3. Kalantari, B. (2010). Herbert A. Simon on making decisions: enduring insights and bounded rationality. *Journal of Management History*, 16(4), 509-520.
4. Buchanan, L. & O'Connell, A. (2006). A Brief History of Decision Making. Harvard Business review.
5. Akrani, G. (2011). *Importance of Decision Making in Management*. Kalyan City Life: Sharing Wisdom and Vivid Memories of Life.
6. Newell, A., & Simon, H. A. (1972). *Human problem solving* (Vol. 104, No. 9). Englewood Cliffs, NJ: Prentice-Hall.

Course Name: Data for Research in Economics

Course Code: ECO. 564

L	T	P	Credit
2	0	0	2

Learning Outcome: On completion of this course, learners will be able to:

- CLO1: Know about the available sources of data,
- CLO2: Extract macro level data,
- CLO3: Extract micro level data,
- CLO4: Use the available data in research.

Units/Hours	Contents	Mapping with CLO
I 07 Hours	Economic data available internationally: Introduction to paid and un-paid sources of data; World Bank (WB) data bank: World Development Indicators, Statistical Capacity Indicators, Education Statistics, Gender Statistics, Health Nutrition and Population Statistics; United Nations (UN) Commodity & Services trade data; United Nations (UN) data on Environmental Accounts, Education, Energy, Environment, Development Indicators, and National Accounts; International Labour Organization (ILO) employment statistics; Organisation for Economic Co-operation and Development (OECD) migration database; International Monetary Fund (IMF) remittance statistics;	CLO1
	Learning Activities: Brain-storming and Problem Solving	
II 07 Hours	Macro level data available in India: Introduction to Reserve Bank of India (RBI) data: Handbook of statistics on Indian Economy, Handbook of Statistics on Indian States; Central Statistical Organization (CSO) data: Output, Employment, Prices; Cost of Living Indicators etc.; Indiastat database; EPW foundation database; Centre for Monitoring Indian Economy (CMIE) data: Economic Outlook, States of India; Directorate of Economics and Statistics, various Ministries, Government of India; Directorate of Economics and Statistics, various state government of India; Directorate General of Commercial Intelligence and Statistics.	CLO2
	Learning Activities: Brain-storming and Problem Solving	
III 07 Hours	Module-III: Micro level data available in India: National Sample Survey Organization (NSSO) data: Employment-Unemployment survey, Migration survey, Consumer Expenditure survey, Social Consumption (Education and Health) Survey Prices; Survey of Landholding, Livestock and Farmers; Unorganised Enterprise Survey; Survey of Slum dwellings; Water, Sanitation and Hygiene Survey etc.; Centre for Monitoring Indian Economy (CMIE) Consumer Pyramid Household Survey (CPHS); India Human Development Survey (IHDS) of the National Council of Applied Economic Research (NCEAR); National family Health Survey (NFHS). Unit level data from Annual Survey of India.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	Module-IV: Extracting micro and macro data for research: Working with Centre for Monitoring Indian Economy (CMIE) Prowess data; Unit level data from Annual Survey of India; Extracting the Unit level data from National Sample Survey Organization (NSSO) and National family Health Survey (NFHS).	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture; demonstration, case analysis, Hands on training in computer lab.

Suggested Readings

1. World Bank (WB) Annual Reports and Publications, Various Years. <https://www.worldbank.org/en/about/annual-report>
2. International Labour Organization (ILO) Reports and Publications, Various Years. <https://www.ilo.org/global/publications/lang--en/index.htm>
3. Economic Survey - Union Budget, Government of India, Various Years. <https://www.indiabudget.gov.in/budget2020-21/economicsurvey/index.php>
4. Various Reports of the Ministry of Statistics and Programme Implementation (MoSPI), Government of India, Various Years. <https://www.mospi.gov.in/reports-publications>.
5. Badola, S., and S. Mukherjee. (2021). Manual for Extracting Unit Level Data from NSSO's Survey using STATA, Notion Press; 1st edition. India.

Course Name: Data Analysis Using STATA

Course Code: ECO. 565

L	T	P	Credit
2	0	0	2

Course Learning Outcomes: On completion of this course, learners will be able to:

- CLO1: Execute the data entry, extraction, merging, coding and recoding process in STATA,
- CLO2: Generate Graphs and Tables and performing statistical tests using STATA,
- CLO3: Learn the process of regression modelling and diagnostic checking using STATA,
- CLO4: Execute the process of advanced regression modelling with qualitative data using STATA.

Units/Hours	Contents	Mapping with CLO
I 07 Hours	Introduction and Data Management: Introduction to STATA; Getting familiar with the interface; Importing data from Excel; Creating a new data file (entering survey data); Data preparation and exploratory data analysis; Defining variables; Dealing with missing values; Data manipulation- data transformation; Generating and transforming variables. Basic tabs and data entry exercises; Extracting and Merging NSSO and PLFS data.	CLO1
	Learning Activities: Brain-storming and Problem-Solving	
II 08 Hours	Descriptive Analysis of Data: Descriptive statistics for two or more variables; Creating and editing charts for two or more variables; Inferential statistics for the mean and the median; One-sample t-test; T-test and Mann-Whitney U Test; One-sample binomial test; One-sample Chi-square; Chi-Squared Test of Independence; Power Analysis for the proportion. One-way and two-way ANOVA. Generation of Graphs and Tables, and Hypothesis testing procedures.	CLO2
	Learning Activities: Brain-storming and Problem-Solving	
III 08 Hours	Correlation and Regression Analysis: Computation of Pearson’s and Spearman’s rank correlation coefficient; Partial and multiple correlation coefficient; Simple Linear regression model and multiple regression models; Regression diagnostic tests: Multicollinearity;	CLO3

	Heteroscedasticity and Autocorrelation detections and remedial measures; and detecting the presence of outliers. Estimating correlation, simple regression models and diagnostic checking using SPSS.	
	Learning Activities: Brain-storming and Problem-Solving	
IV 07 Hours	More topics on Regression Analysis: Dummy variable (independent) regression models; Limited dependent variable regression models: Logit; and Probit models; Basic time series regression models: stationarity checking and fitting univariate and multivariate time series regression models; and Basic Panel data regression models: fixed effect and random effect models. Estimating advanced regression models using both quantitative and qualitative data using STATA.	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Practical Lecture, demonstration, and hands-on practices using STATA.

Suggested Readings:

1. Colin Cameron.A, Pravin K.Trivedi (2010). Microeconometrics using Stat, Revised Version, Stata Press, 4905 Lakeway drive, College Station, Texas, USA.
2. Rabe-Hesketh, S., & Everitt, B. (2003). Handbook of statistical analyses using Stata. 4th Edition,CRC Press.
3. Long, J. S., & Freese, J. (2006). Regression models for categorical dependent variables using Stata (Vol. 7). Stata press.

Web links:

1. <https://www.stata.com/links/resources-for-learning-stata/>.
2. <https://www.stata.com/links/video-tutorials/>

Course Name: Cost-Benefit Analysis

Course Code: ECO. 566

L	T	P	Credit
2	0	0	2

Learning Outcome: On completion of this course, learners will be able to:

- CLO1:Familiar with the Concepts and Methods of Cost Benefit Analysis
- CLO2: Understand the Microeconomic Foundations of Cost-Benefit Analysis
- CLO3: Critically evaluate the Economic Analysis of Projects
- CLO4: Learn the practical steps involved in conducting Cost Benefit Analysis

Units/Hours	Contents	Mapping with CLO
I 07 Hours	Introduction to Cost Benefit Analysis (CBA): Introduction to Cost-Benefit Analysis; Individual Versus Social Costs and Benefits; Types of CBA Analyses; The Basic Steps of CBA; The Origins and Demand for CBA; The Cost of Doing CBA; Conceptual Foundations of Cost-Benefit Analysis: CBA as a Framework for Assessing Efficiency, Using CBA for Decision-Making, Fundamental Issues Related to Willingness to Pay, Concerns about the Role of CBA in the Political Process, Limitations of CBA: Other Analytical Approaches.	CLO1
	Learning Activities: Brain-storming and Problem-Solving	
II 07 Hours	Microeconomic Foundations of Cost-Benefit Analysis: Demand Curves; Supply Curves; Social Surplus and Allocative Efficiency; Distributional Implications; Incorporating the Social Cost of Raising Revenue through Taxation; Consumer Surplus and Willingness to Pay; Compensating Variation, Income and Substitution Effect.	CLO2
	Learning Activities: Brain-storming and Problem-Solving	

III 07 Hours	Economic Analysis of Projects: Introduction; Original Methodology and Changing Policy Environment; Methodological Developments: Income distribution and poverty, Risk and uncertainty, Valuation of non-marketed goods, Environmental sustainability, Discounting; Alternatives to Cost–Benefit Analysis; Practical Applications.	CLO3
	Learning Activities: Brain-storming and Problem Solving	
IV 07 Hours	Shadow Prices and Cost Effectiveness Analysis: Value of a Statistical Life, Value of a Life-Year, Cost of Injuries and Crashes, Cost of Crime, Value of Time, Value of Recreation, Value of Nature, Value of Water and Water Quality, Cost of Noise, Cost of Air Pollution, Social Costs of Automobiles, and Benefit Transfer. Cost Effectiveness Analysis and Cost–Utility Analysis	CLO4
	Learning Activities: Brain-storming and Problem Solving	

Transaction Mode: Lecture; Presentation, Demonstration, Case analysis, Peer learning.

Suggested Readings

1. ADB. (2013). Cost-benefit analysis for development: A practical guide. ADB. ISBN 978-92-9092-957-4 (Print), 978-92-9092-958-1 (PDF).
2. Boardman, A. E., Greenberg, D. H., Vining, A. R., & Weimer, D. L. (2018). Cost-benefit analysis: concepts and practice. Cambridge University Press. 5th Edition, ISBN 978-1-108-41599-6 Hardback ISBN 978-1-108-40129-6 Paperback.
3. Weimer, D. (Ed.). (2009). *Cost-benefit analysis and public policy*. the Association for Public Policy Analysis and Management. John Wiley & Sons, ISBN: 978-1-405-19016-9
4. Alan E. Dillingham, Ted Miller, and David T. Levy, “A More General and Unified Measure for Valuing Labour Market Risk.” *Applied Economics*, 28, 1996, 537–42. 18.
5. Charles Blackorby and David Donaldson, “A Review Article: The Case Against the Use of the Sum of Compensating Variation in Cost–Benefit Analysis.” *Canadian Journal of Economics*, 23(3), 1990, 471–94. 7.
6. Charles Blackorby and David Donaldson, “Consumers’ Surpluses and Consistent Cost–Benefit Tests.” *Social Choice and Welfare*, 1(4), 1985, 251–62.
7. Ian W. H. Parry, Margaret Walls, and Winston Harrington, “Automobile Externalities and Policies.” *Journal of Economic Literature*, 45(2), 2007, 373–99. 68.
8. Nicholas Stern, *The Economics of Climate Change: The Stern Review* (New York, NY: Cambridge University Press, 2007).
9. Steven Kelman, “Cost–Benefit Analysis: An Ethical Critique.” *Regulation*, January/February 1981, 33–40.
10. Ted R. Miller, “Variations Between Countries in Values of Statistical Life.” *Journal of Transport Economics and Policy*, 34(2), 2000, 169–88; Janusz R. Mrozek and Laura O. Taylor, “What Determines the Value of Life? A Meta-Analysis.”
11. Zaloshnja, Miller, Romano, and Spicer, “Crash Costs by Body Part Injured, Fracture Involvement, and Threat to Life Severity, United States, 2000.”

SEMESTER- IV

Course Name: Dissertation Part-II

Course Code: ECO.600

Course Learning Outcomes: After completion of the course, learners will be able to:

- CLO1: Conduct research independently in economics,
- CLO2: Develop analytical and logical thinking in the process of conducting research,
- CLO3: Apply the implications of research in generating new knowledge.

Contents of Dissertation:

In this semester, learners will be involved in data collection, analyses and report writing as per the 'Research Proposal' prepared in the previous semester. The structure of dissertation includes Title page, Certificates, Table of Contents, List of Tables, List of Figures, Introduction, Review of literature, Data and Methodology, Results and Discussion, Conclusion, References, Appendices.

Evaluation Criteria:

Dissertation Part-II: Full Dissertation Report		
Pattern	Marks	Evaluation
Supervisor	50	Dissertation, Presentation, Viva-Voce
HOD, External Expert, and Senior-most Faculty of the Department	50	Dissertation, Presentation, Viva-Voce

Note: Dissertation shall be prepared individually by the students under the guidance of supervisor allotted by the Department. If group dissertation is opted, then maximum four students can form a group. However, the contribution of each member must be substantial and all must have full understanding of the entire process of research and research outcomes. Depending on the nature of research and scope of the topic, students can apply multidisciplinary approach in their research. Dissertation work, if requires, can have collaboration with industry.