CENTRAL UNIVERSITY OF PUNJAB

M.A. Economics

Session – 2021-23

Department of Economic Studies

School of Social Sciences

Programme Graduate Attributes

The graduates will have skills to comprehend current events and evaluate specific policies, and to provide economic analyses to problems in real world situations. They will perform analytical skills to comprehend knowledge to use empirical evidence to evaluate the validity of economic arguments and theories to create employability at the local, regional, national and international level. They will also carry out cutting-edge research in theoretical as well as applied economics.

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	Core	4	0	0	4
ECO.509	International Economics	Core	4	0	0	4
XXX.###	*Students to choose a course from the list of elective courses given below*	Elective	3	0	0	3
XXX.###	*Interdisciplinary Elective – I (Students to choose a course from other Departments)*	IDC	2	0	0	2
	Total		**21**	**0**	**0**	**21**
List of Discipline Electives (select any one of the following)						
ECO.510	Agricultural Economics	Elective	3	0	0	3
ECO.511	Industrial Economics	Elective	3	0	0	3
ECO.512	Gender Economics	Elective	3	0	0	3
ECO.513	Financial Institutions and Markets	Elective	3	0	0	3
ECO.515	Political Economy of Development	Elective	3	0	0	3
Interdisciplinary courses (for students of other Departments)						
ECO.514	Foundations of Economics	IDC	2	0	0	2
ECO.516	Introduction to Indian Economy	IDC	2	0	0	2
ECO.517	Agricultural Development and Management	IDC	2	0	0	2

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	Core	4	0	0	4
ECO.524	Basic Econometrics	Core	4	0	0	4

Course Code	Course Title	Course Type	L	T	P	Credit
XXX. ###	*Students to choose a course from the list of elective courses given below*	Elective	3	0	0	3
XXX. ###	*Students to choose a course from the value based courses offered in the University*	Value Based	#	#	#	2
	Total		##	#	#	**23**
List of Discipline Electives (Select any one of the following)						
ECO.525	Money and Banking	Elective	3	0	0	3
ECO.527	Innovation and Entrepreneurship	Elective	3	0	0	3
ECO.529	Social Survey Methods	Elective	3	0	0	3
ECO.530	Rural Development and Policies	Elective	3	0	0	3
ECO.531	Economics of Innovation	Elective	3	0	0	3
ECO.532	International Trade and Investment	Elective	3	0	0	3
List of Value Based Course (For Master's students of the University)						
ECO.533	Data Analysis Using SPSS	Value Based	0	0	4	2
ECO.534	Decision Making Skills	Value Based	0	0	4	2

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 Methods in Economics	Compulsory Foundation	4	0	0	4
ECO.555	Research Proposal	Compulsory Foundation	4	0	0	4
ECO.556	Practices of Economics	DEC	2	0	0	2
ECO.557	Entrepreneurship	Foundation	1	0	0	1
XXX. ###	*Students to choose a course from the list of elective courses given below*	Elective	3	0	0	3
	Total		**22**	**0**	**0**	**22**

	List of Discipline Electives (select any one of the following)					
ECO.554	Punjab Economy	Elective	3	0	0	3
ECO.558	Environmental Economics and Policy	Elective	3	0	0	3
ECO.559	Public Economics	Elective	3	0	0	3
ECO.560	Globalization and Development	Elective	3	0	0	3
ECO.561	Demography	Elective	3	0	0	3
ECO.562	Advanced Econometrics	Elective	3	0	0	3

SEMESTER -IV

Course Code	Course Title	Course Type	L	T	P	Credit
ECO.600	Dissertation	Skill Based	0	0	40	20

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.

Evaluation Pattern of Courses

	Core, Discipline Elective, Compulsory Foundation, Value Added and Interdisciplinary Courses		Discipline Enrichment Course		Entrepreneurship Course	
	Marks	Evaluation	Marks	Evaluation	Marks	Evaluation
Internal Assessment	25	Various	-	-	-	-
Mid-semester test (MST)	25	Subjective	50	Objective	25	Objective
End-semester test (EST)	50	Subjective (70%) Objective (30%)	50	Objective	25	Subjective

Note:

1. The objective type evaluation will include one-word answers, fill-in-the-blank, sentence completion, true/false, MCQs', matching, analogies, rating and checklists. The number of questions and weightage to each question will decide by the department only.

2. The subjective type evaluation will include a very short answer (1-2 lines), a short answer (one paragraph), essay type with the restricted response, and an extended response. The number of questions and weightage to each question will decide by the department only.

3. Internal Assessment Methods: Surprise Tests, in-depth interview, unstructured interview, case-based evaluation, video-based evaluation, Kahoot, Padlet, Directed paraphrasing, Approximate analogies, one-sentence summary, Pros and cons grid, student-generated questions, case analysis, simulated problem solving, Minute paper, open book techniques, classroom assignments, home assignments, term paper.

4. University reserves the right to change examination pattern if circumstances warrants doing so.

Course Name: Microeconomics - I

Course Code: ECO. 506

L	T	P	Cr
4	0	0	4

Total Hours = 60

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

- Understand and explain the optimizing behaviour of a consumers, producers, and theory of costs of firms.
- Explain how the optimum price and output in various markets are determined.
- Apply the theories of consumption, production, cost and market structures in empirical research projects.

Unit-I   **15 Hours**

Theory of Consumer Behaviour: Basic concepts and mathematical notations: Ordinal Utility Theory: Optimizations, derivation of demand function, income-leisure hypothesis, substitution and income effects; Linear expenditure system, Separable and Additive utility functions, Homogeneous and Homothetic utility functions; Indirect utility functions and Duality theorem; Theory of revealed preference, Consumer Surplus; Problem of choices in situations involving Risk and Uncertainty (attitude towards risk and insurance). A complete understanding of basics and advanced theory of consumer behaviour, Brain storming and problem solving.

Unit-II   **15 Hours**

Theory of Production and Costs: Basic Concepts; Short-run and long run production functions; 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, brain storming and problem solving.

Unit-III   **15 Hours**

Price-Output under Perfect Competition and Monopoly: Perfect Competition: Short-run and Long-run Equilibrium; 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, brain storming and problem solving.

Unit-IV **15 Hours**

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: Cournout's model, Bertrand's model, Chamberlin's model, Stackelberg's model and Kinked demand Model of oligopoly. The behaviour of producers as a profit maximizer under the scenario of product differentiation and selling cost competitions, Monospsony and Oligopsony, Brain storming and problem solvng.

Transaction Mode: Lecture, Problem Solving, 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**

	L	T	P	Cr
	4	0	0	4

Course Name: Macroeconomics – I

Course Code: ECO.507

Total Hours = 60

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

- Estimate national income of a country,

- Assess the validity of classical and Keynesian macroeconomic theories,

- Evaluate validity of rational expectations and supply-side economics, and

- Apply the theories of consumption and investment in decision making.

Unit-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; 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. Brain-storming and Problem Solving.

Unit-II   **15 Hours**

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; Consumption under Uncertainty – The Random-Walk Hypothesis. Peer discussion, real world application, brain storming and Problem Solving.

Unit-III   **15 Hours**

Investment Function: Determinants of Investment – Marginal Efficiency of Capital and Rate of Interest; Marginal Efficiency of Investment and Level of Investment; Keynesian Theory of Investment Decisions, Profits and Accelerator Theories of Investment; Lags in Investment, Tobin's q Theory of Investment. Modelling and scaffolding, brain storming and problem solving.

Unit-IV   **15 Hours**

Disequilibrium Macroeconomics: Features of Disequilibrium Economics; Disequilibrium Models of Clower, Barro-Grossman, Malinvaud and Benassy. 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

L	T	P	Cr
4	0	0	4

Course Code: ECO.508

Total Hours = 60

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

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

Unit-I   **15 Hours**

Differentiation and Integration: Set Theory, Relation and Function, Limit, Continuity, Differentiation of algebraic, exponential, logarithmic, trigonometric, and implicit functions; Partial Differentiations, Euler's theorem and total differentials; Maxima and minima with and without constraints; Indefinite and definite integrals, Applications of static optimization techniques; Economic applications of differentiation and integration, brain storming and problem solving.

Unit-II   **15 Hours**

Differential and Difference Equations: Differential and difference equations of first and second order; Applications for determining Market Equilibrium and other economic applications, brain storming and problem solving.

Unit-III   **15 Hours**

Linear Algebra: Concept of Vector; Matrix: Types, properties of determinants, rank and inverse of matrix; System of linear equations, Solution by Crammer' rule and matrix inverse method, Linear independence and dependence of vectors, characteristic roots and vectors, quadratic forms, real world application and Problem Solving,brain storming and problem solving.

Unit-IV   **15 Hours**

Linear Programming: Formulation and solution of linear programming problem; simplex and graphical methods, Concept of Duality; Input-Output Analysis – Open and Closed Models; Game Theory & its Applications, real world application and Problem Solving, brain storming and problem solving

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

Suggested Readings:

1. Allen, R.G.D. (2016). *Mathematical analysis for econometrics*, 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 and Others. (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

L	T	P	Cr
4	0	0	4

Course Code: ECO.509

Total Hours: 60

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

- Explain the various concepts and approaches used in international Economics;
- Identify the various problems emerged in international trade;
- Distinguish the various approaches in Balance of payments;
- Analyze the previous and existing pattern of globalization;

Unit-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 Gap Theory; Causes of Emergence and Measurement of Intra-industry Trade. Analysis of various views on causes of trade, brain storming and problem solving.

Unit-II **15 Hours**

Terms of Trade: Concepts and Measurement; Prebisch and Singer views on terms of trade; Theory of Tariff; Regionalism and Multilaterism; 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, brain storming and problem solving.

Unit-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; Crisis and exchange rate. Reconstruction of various concepts of exchange rate and Balance of payments, brain storming and problem solving.

Unit-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 Rou

nd Pattern of Trade during Pandemics. Peer reviews of various role of various international agencies, brain storming and problem solving.

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. *Exchange Rates and International Finance*. Harlow: Prentice Hall, 2014. Sixth edition [ISBN 978-0273786047].

3. Francis, C. (2008), *International Economics*, McGraw-Hill Education.

4. Gopinath, G., Helpman, E. And Rogoff, K. (2014). *Handbook of International Economics*, North Holland Publications.

5. James C. and Robert, M. (2004). *International Economics*, John Wiley & Sons. Inc.

6. Jones, R. W. and Kenen, P. B. (2003). *Handbook of International Economics*. (Volume I, II and III). Amsterdam: Elsevier.

7. Kofman, E., and Youngs, G. (2001). *Globalisation: Theory and Practice (2nd Ed.).* London: Pinter.

8. Krugman, P. R. and Obstfeld, M. (2000). *International Economics: Theory and Policy*, Dorling Kindersley (India) Pvt. Ltd.

9. 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].

10. Mikic, M. (1998). *International Trade*. London: Macmillan Press.

11. Munck, R. (2003). *Globalization and Labour: The New Great Transformation*. Zed Books Ltd.

12. University Press.

13. Sakamoto, Y. (1994). *Global Transformation: Challenges to the State System*. Tokyo: United Nations University Press.

14. Salvatore, D. (2004). *International Economics*. John Wiley and Sons Inc.

15. Sodersten, B. O. and Reed, G. (2008). *International Economics*. London: McMillan.

16. Stiglitz, J. E. (2002). *Globalization and its Discontents*. London: Penguin.

Course Name: Agricultural Economics

L	T	P	Cr
3	0	0	3

Course Code: ECO.510

Total Hours = 45

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

- Understand dynamics of agricultural production and marketing in India
- Assess the role of organizations for agricultural development and strategies for revival of agriculture and rural economy of India.

Unit-I   **12 Hours**

Agricultural Economics: Meaning, Scope and Role in economic development; Interface between Agriculture and Industry; Theories of Agriculture Economics, Land Reforms; Agriculture Development in Planning Periods and recent initiatives by NITI Ayog; Green Revolution: Implementation and Impacts; Agrarian Crises and Farmer Suicide; Agricultural Diversification. Peer review of Agriculture reforms, brain storming and problem solving.

Unit-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. Peer review of agriculture production activities, brain storming and problem solving.

Unit-III   **12 Hours**

Agricultural Marketing: Need/importance, Market Structure, Types of Agricultural markets and their regulation, Major Problems, Costs and Efficiency in the markets; Agricultural Marketing Reforms; Innovations in Agricultural Marketing System; Contract Farming (brief introduction); Agricultural Price Policy in India-MSP, FRP, India's recent Farm Act and its Impact, Peer review of problems faced by Markets, brain storming and problem solving.

Unit-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 (case studies). Peer review of various acts, brain storming and problem solving.

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

Suggested Readings

1. Acharya, S.S. and Agarwal, N.L. (2012). *Agricultural Marketing in India.*, New Delhi.

2. Bansil, P.C. (2017). *Economic Problems of Indian Agriculture*, New Delhi.

3. Barkley, A. (2013). *Principles of Agricultural Economics*, Routledge, London.

4. 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. Penson, J.B., Capps, O. and Woodward, R.T. (2018). *Introduction to Agricultural Economics*, Pearson Education, New Delhi.

14. Reddy, S.S. and Ram, P.R. (2000). *Agricultural Finance and Management*, New Delhi.

15. Reddy, S.S. Ram, R. and Sastry, T.V.N., Devi. I.B. (2008). *Agricultural Economics*, Oxford.

16. Reddy, D.N. and Srijit Mishra. (2010). *Agrarian Crisis in India*, (eds.), Oxford University Press.

17. Soni, R.N. and Malhotra, S. (2016). *Leading Issues in Agricultural Economics*, Delhi.

18. Singh, S. and Singla, N. (2011). *Fresh Food Retail Chains in India*.

19. 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/10.1177/003 0727016665440.

20. UNIT 15 *CAPITAL FORMATION IN INDIAN AGRICULTURE*. Available at http://egyankosh.ac.in/bitstream/123456789/188 38/1/Unit-15.pdf.

21. UNIT 16 *AGRICULTURAL MARKETING IN INDIA*. Available at http://egyankosh.ac.in/bitstream/123456789/188 33/1/Unit-16.pdf.

Course Name: Industrial Economics

L	T	P	Cr
3	0	0	3

Course Code: ECO.511

Total Hours = 45

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

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

Unit-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 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, brain storming and problem solving.

Unit-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: Lancastrian 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, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Transaction Modes:

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 Eastion, B. & R.G. Lipsey, *Product Differentiation,* in Handbook of Industrial Organization, Vol. 1, North-Holland.

Course Name: Gender Economics	L	T	P	Cr
	3	0	0	3

Course Code: ECO.512

Total Hours = 45

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

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

Unit-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. Peer reviews of various role of Gender Economics, brain storming and problem solving.

Unit-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 gender empowerment, Women in agriculture, Women in industry, Women in services, Gender dimensions of International trade. Peer reviews of various role of gender with development brain storming and problem solving.

Unit-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. Peer reviews of various role of gender with social sector, brain storming and problem solving.

Unit-IV **11 Hours**

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. Peer reviews of various role of women in real world, brain storming and problem solving.

Transaction Modes:

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. Devasia Leelamma. (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 labour market 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

L	T	P	Cr
3	0	0	3

Course Code: ECO.513

Total Hours = 45

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

- Evaluate the functioning of a financial system,
- Assess the role of financial markets in an economy,
- Describe the efficiency of financial institutions, and
- Explain the effectiveness of financial services in an economy.

Unit-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.

Unit-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. Brain storming and problem solving.

Unit-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, International Funds Flows and Indian Financial Sector to be added to the course on Financial Institutions and Markets, Brain storming and problem solving.

Unit-IEcV   **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 Word Bank and their relationships with Indian Financial Institutions, 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

L	T	P	Cr
3	0	0	3

Course Code: ECO.515

Total Hours = 45

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

- Develop understanding of philosophical approaches to political economy,
- Develop the ability of analysing Marxian political economy,
- Develop ability of conceptualization of imperialism and neo-colonialism, and
- Develop ability to analyse transition to socialism.

Unit-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. Peer review of political economy, brain storming and problem solving.

Unit-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. Modelling and scaffolding, brain storming and problem solving.

Unit-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. Modelling and scaffolding, brain storming and problem solving.

Unit-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, Peer review of socialism, 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. 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: Foundations of Economics

Course Code: ECO.514

L	T	P	Cr
2	0	0	2

Total Hours = 30

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

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

Unit-I   **8 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, brain storming and problem solving.

Unit-II   **7 Hours**

Market structure: Perfect competition, Monopoly, Oligopoly, Monopolistic competition and nonprice competition, The labour market, Introduction to macroeconomics, Equilibrium in the economy, Monopsony and Oligopsony, brain storming and problem solving.
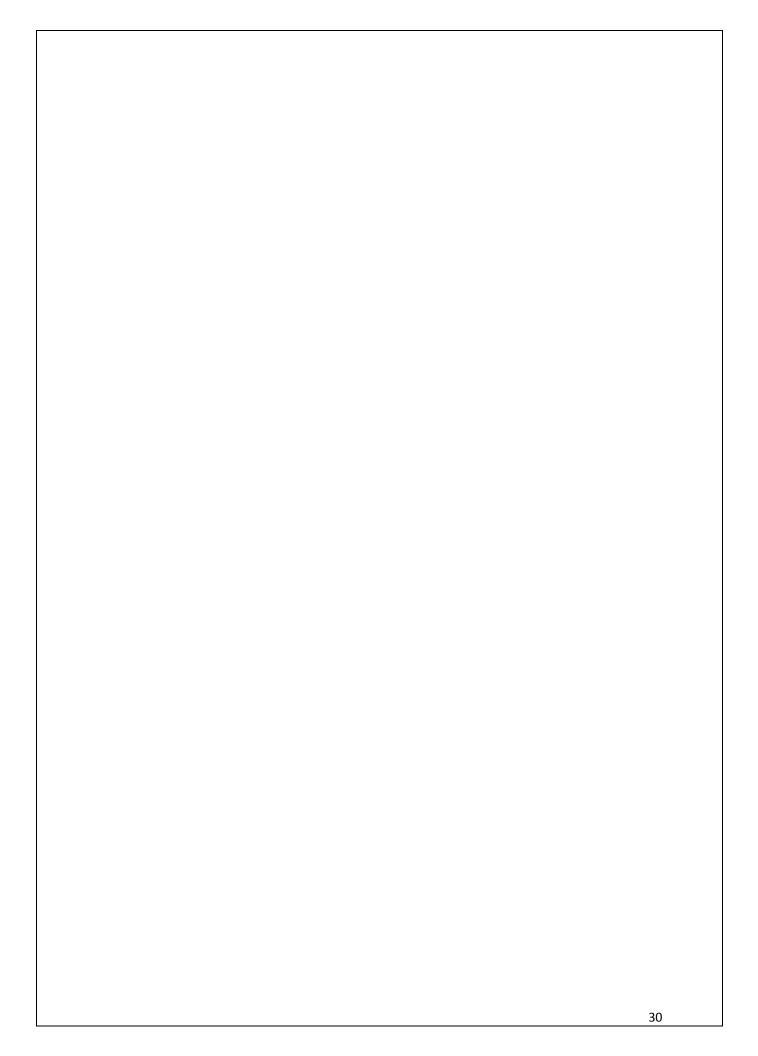
Unit-III

8 Hours

National income and the standard of living: Aggregate demand, aggregate supply, and the price level, Consumption, Investment, Fiscal policy, Money and monetary policy, brain storming and problem solving.

Unit-IV   **7 Hours**

Economic growth and the economic cycle: Unemployment, Inflation, Exchange rates, International trade, balance of payments, and protectionism, Protectionism and globalization, 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

L	T	P	Cr
2	0	0	2

Course Code: ECO.516

Total Hours: 30

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

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

Unit-I   **8 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. Peer review of problem in Indian economy, brain storming and problem solving.

Unit-II   **7 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, brain storming and problem solving.

Unit-III   **8 Hours**
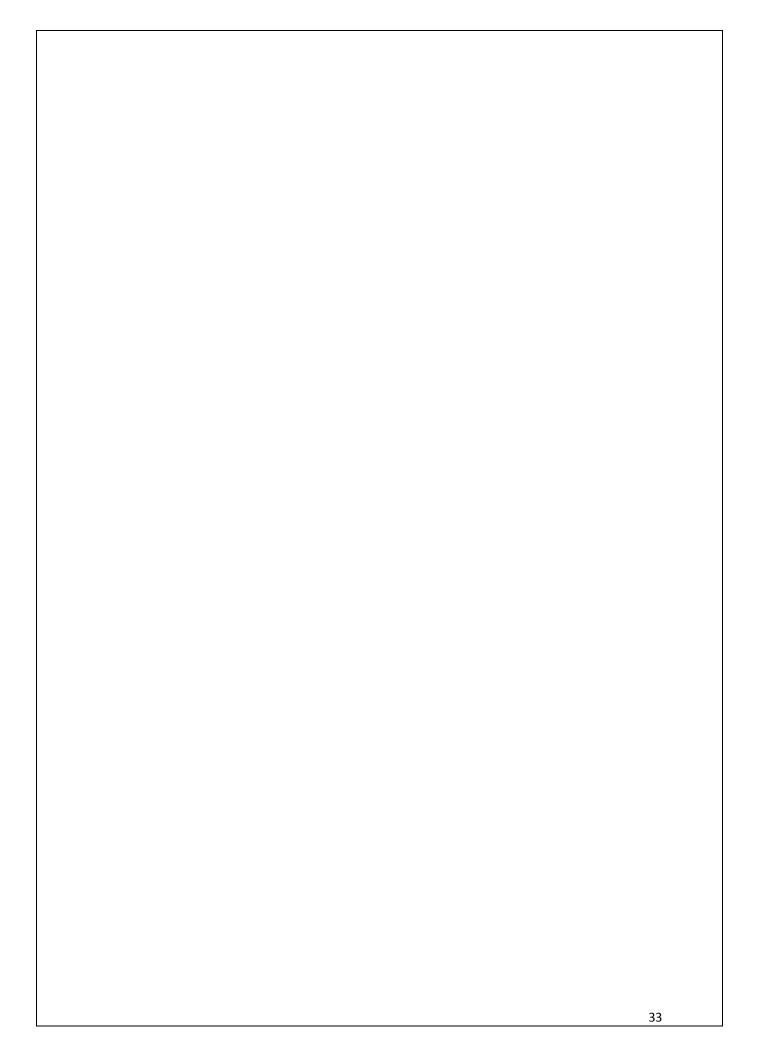
Economic Policies: Economic Planning in India, NITI Aayog, monetary policy in India, Fiscal Policy in India, Centre-state Financial Relations. Modelling and Scaffolding, brain storming and problem solving.

Unit-IV   **7 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, 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: Agricultural Development and Management

L	T	P	Cr
2	0	0	2

Course Code: ECO.517

Total Hours: 30

Learning Outcomes:

- On completion of t his course, the students from different streams will be able to:
- Identify the factors influencing agricultural development in India, assess the land reform policies in India,
- Evaluate the efficiency of the public distribution system in India, and guide farmers in linking them with new market situations.

Unit-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. Modelling and Scaffolding, brain storming and problem solving.

Unit-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, Peer review of agriculture problems, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-IV   **7 Hours**

Managing Agriculture: role of agri-business, linking farmers with new markets, diversifying agriculture. Peer review of new policies, brain storming and problem solving.

Transaction Mode: Lecture, discussion & case studies, 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: Microeconomics – II

L	T	P	Cr
4	0	0	4

Course Code: ECO.521

Total Hours: 60

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

- Understand and explain how price and output is determined in real market structures, and managers optimize their utility.
- Explain how rent & wages are determined, and Society's welfare is maximized through allocation of resources.

Unit-I   **15 Hours**

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. Modelling and Scaffolding, brain storming and problem solving.

Unit-II   **15 Hours**

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. Modelling and Scaffolding, brain storming and problem solving.

Unit-III   **15 Hours**

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. Modelling and Scaffolding, brain storming and problem solving.

Unit-IV   **15 Hours**

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. Modelling and Scaffolding, brain storming and problem solving.

Transaction Mode: Lecture, Problem Solving, Discussion & Demonstration, and Case Studies, blended learning.

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. Rubbinfeld, & 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., & Ooconnell, 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

L	T	P	Cr
4	0	0	4

Course Code: ECO.522

Total Hours: 60

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

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

Unit-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. Brain-storming; case analysis and problem solving.

Unit-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 Philips Curve; Theories of Unemployment – A Generic Efficiency Wage Model, Shapiro-Stiglitz Model, Contracting Models, Search and Matching Models; Automation and Unemployment. convergent and divergent thinking; case analysis, brain storming and problem solving.

Unit-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. peer discussion and case analysis, brain storming and problem solving.

Unit-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. Activity: 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

L	T	P	Cr
4	0	0	4

Course Code: ECO.523

Total Hours: 60

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

- Apply various techniques of correlation and regression,
- Construct index numbers,
- Evaluate the uncertainties associated with economic events, and Randomize the economic experiences/observations.

Unit-I **15 Hours**

Correlation and Regression: Meaning, assumptions and limitations of simple correlation and regression-analysis; Pearson's product moment and Spearman's rank Correlation coefficients and their properties; partial and multiple correlation, lines of regression and properties of regression coefficients; Multiple linear regression equation and coefficient of multiple determination (application only). Brain Storming and Problem Solving.

Unit-II **15 Hours**

Index Number: 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. Brain Storming and Problem Solving.

Unit-III **15 Hours**

Elementary concept of a random variable: probability mass and density functions; Expectations, moments and moments generating function of a random variable; Elements of Probability: Deterministic and nondeterministic experiments, various types of events; Classical and empirical definitions, laws of addition and multiplication of probability, conditional probability, Properties and applications of Binomial, Poisson and normal distributions. Brain Storming and Problem Solving.

Unit-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, x^2 and F (including ANOVA) statistics. Brain Storming and Problem Solving.

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.

	L	T	P	Cr
Course Name: Basic Econometrics	4	0	0	4

Course Code: ECO.524

Total Hours: 60

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

- Understand and explain basics of linear regression models, process of hypothesis testing, and empirical model fitting using both quantitative and qualitative (dummy) variables,
- Carry out diagnostic tests for regression models,
- Validate economic theories empirically,
- Conduct empirical research and company projects.

Unit-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. Basics of linear regression models and testing of hypothesis of regression parameters, brain storming and problem solving.

Unit-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. Regression models using both quantitative and qualitative (dummy) variables, brain storming and problem solving.

Unit-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. Diagnostic tests and validity of empirical regression models, brain storming and problem solving.

Unit-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. Univariate and multivariate regression models using time series data, brain storming and problem solving.

Transaction Mode: Lecture, Demonstration, Discussions, Hands on with econometric software like stata and e-views, blended learning.

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	Cr
3	0	0	3

Total Hours: 45

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

- Comprehend the theories of money supply,

- Explain the theories of demand for money,

- Assess the functioning of a financial system, and

- Evaluate the effectiveness of monetary policy in a country.

Unit-I   **15 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 Report. Brain Storming and Problem Solving.

Unit-II   **15 Hours**

Demand for Money: Classical Theory, Keynes' Theory, 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. Brain Storming and Problem Solving.

Unit-III   **15 Hours**

Financial System: Different theories & Approaches; Financial Markets – Functions and Types; Money Market and Capital Market – nature, functions and instrument; Structure of Indian money and capital markets; Theoretical perspectives on financial and real sectors. Brain Storming and Problem Solving.

Unit-IV   **15 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 Changes in India; International Monetary policy transmission mechanism. 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

L	T	P	Cr
3	0	0	3

Course Code: ECO.527

Total Hours: 45

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

- 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.

- Describe the ways in which entrepreneurs perceive opportunity, manage risk, organise resources and add value.

- 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.

- Engage in a continuing learning process through the interaction with peers in related topics, as individuals and as team members.

Unit-I   **10 Hours**

Entrepreneurship & Innovation: Introduction, Entrepreneurship, Entrepreneurial process, Entrepreneurial mind, Creativity and innovation, Innovation, Opportunity, Ideas, opportunities, and innovation, Relevant Cases, brain storming and problem solving.

Unit-II   **10 Hours**

Entrepreneurial Style: Sole Proprietor, Partners, Joint Stock Companies, Small business, Start-ups, Ventures, Family business, Social entrepreneurship, Intrapreneurship, Relevant Cases, brain storming and problem solving.

Unit-III   **15 Hours**

Business Plan & Entrepreneurial Strategy: Screening opportunities, Business plan, Resource requirements, Entrepreneurial strategy, Entrepreneurial team, Entrepreneurial finance, Entrepreneurial marketing, Relevant Cases, brain storming and problem solving.

Unit-IV   **10 Hours**

Managing, Growing and Liquidating Enterprise: Enterprise management, Growth strategies, Industrial sickness, Remedial measures, Liquidation of enterprise, Relevant Cases.
Note: At least one industrial visit and one business plan preparation will be mandatory before appearing in end semester examination, brain storming and problem solving.

Transaction Modes:

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

Books

1. Timmons, Jeffry A., Gillin, L. M., Burshtein, S., and Spinelli, Stephen Jr. (2011). *New Venture 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

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

	L	T	P	Cr
	3	0	0	3

Course Name: Social Survey Methods

Course Code: ECO. 529

Total Hours: 45

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

- Explain the various concepts and approaches used in social survey,

- Identify the various survey techniques used in social sciences;

- Distinguish the various sampling techniques,

- Analyze the social survey data.

Unit-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. Brain Storming and problems solving.

Unit-II **11 Hours**

Social Surveys: An Introduction to Structured Questionnaires and Structured Interviews, Survey error. Brain Storming and problems solving.

Unit-III **11 Hours**

Sample Design: choosing target population and sample size, selection of appropriate sampling technique. Brain Storming and problems solving.

Unit-IV **11 Hours**

Analysis of Surveyed Data: coding and preparing data tables, calculation and presentation with excel, various case studies of Social Surveys. Brain Storming and problems solving.

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

Suggested Readings:

1. Singleton, R. A., & Straits, B. C. (2005). *Approaches to social research* (4th edition). New York: Oxford University Press**.**

2. 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).

3. 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.

4. Gupta, S. C. (2012).   *Fundamentals of Statistics*. New Delhi: Himalaya Publishing House Pvt. Ltd.

5. Gupta, S. C., and Kapoor, V. K. (2009). *Fundamentals of applied statistics*. New Delhi: Sultan Chand and Sons.

6. Gupta, S.P. (2012). *Statistical Methods* (28th Edition). New   Delhi: Sultan Chand and sons.

7. Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement.* 9. London: Pinter. (Chapters 10-11, 174-209). Patton, M. (1980) Qualitative Interviewing.

8. *Qualitative Evaluation Methods*. Thousand Oaks, CA: SAGE Publications. 195-263.

9. Sapsforf, R. (1999) *Survey Research*. Thousand Oaks, CA: Sage Publications. 20-99.

10. *SOCIAL SURVEY METHODS* A Fieldguide for Development Workers Development Guidelines, No. 6 (Series Editor: Brian Pratt) Paul Nichols Oxfam GB 2000, uk

11. Fowler, F. (1995). *Improving survey questions: design and evaluation.* Thousand Oaks, CA: SAGE Publications. (Chapter 3, 46-77)

12. Groves, R. M et al. (2009). *Survey methodology*. 2nd Edition, Wiley. (Chapters 1-2)

13. Wills, G. D. (2005). *Cognitive interviewing: a tool for improving questionnaire design*. Thousand Oaks, CA: SAGE Publications. (Chapter 5)

14. Becker, Howie and Pamela Richards. 1986. *Writing for Social Scientists: How to Start and Finish your Thesis, Book or Article.* University of Chicago Press.

15. Dillman, D., Eltinge, J., Groves, R., & Little, R. (2002). *Survey nonresponse in design, data collection, and analysis*. In Survey Nonresponse, R. Groves, D. Dillman, J. Eltinge, & R. Little. New York: John Wiley & Sons.

16. Fowler, F. (1995). *Improving survey questions: design and evaluation.* Thousand Oaks, CA: SAGE Publications. (Chapter 3, 46-77).

17. Gorin, J. (2006). *Test design with cognition in mind*. Educational Measurement: Issues & Practice, 25(4), 21-35.

18. Groves, R. M et al. (2009). *Survey methodology.* 2nd Edition, Wiley. (Chapters 1-2) 21.Hambleton, R. K., Swaminathan, H. and Rogers, H. J. (1991) *Fundamentals of item response theory.* Newbury Park, CA: SAGE Publications, (Chapters 1-3).

19. Survey methodsUnit-15.pdf (egyankosh.ac.in).

20. *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.

21. Groves, Robert M. (1989). *Survey Errors and Survey Costs.* New York: John Wiley and Sons

22. Weisberg, H. F., Krosnick, J. A., & Bowen, B. D. (1996). *An Introduction to Survey Research, Polling, and Data Analysis.* Thousand Oaks, CA: Sage Publications.

23. Lavrakas, P. J. (1993). *Telephone Survey Methods: Sampling, Selection, and Supervision.* Thousand Oaks, CA: Sage Publications.

Course Name: Rural Development and Policies

L	T	P	Cr
3	0	0	3

Course Code: ECO.530

<div align="right">

Total Hours: 45

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

- Learn the nature of rural development that has taken so far in India, particularly in the context of allied agricultural and rural enterprises under the influence of various agricultural and rural development policies.

Unit-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. Brain Storming and Problem Solving.

Unit-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. Brain Storming and Problem Solving.

Unit-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. Brain Storming and Problem Solving.

Unit-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. Brain Storming and Problem Solving.

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

5. Jodhka, S.S. (2018). *A Handbook of Rural India* (Readings on the Economy, Polity and Society), Orient BlackSwan.

6. Lazaro, E., Agergaard, J., Larsen, M. N., Makindara, J., & BirchThomsen, 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.

	L	T	P	Cr
Course Name: Economics of Innovation	3	0	0	3

Course Code: ECO. 531

Total Hours: 45

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

- Understand the Economics of Innovation,
- Understand the relations between technological change and economic development,
- Evaluate the STI policy.

Unit-I   **11 Hours**

Nature of Innovation: Theories of innovation,Theories of National Innovation System, Genesis of R&D and innovation concepts. Brain Storming and problem solving.

Unit-II   **11 Hours**

Innovation: firm and market characteristics, International aspects on Innovation, trade. Brain Storming and problem solving.

Unit-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. Brain Storming and problem solving.

Unit-IV   **11 Hours**

Measuring economic effects of R&D and innovation: Digitalization and innovation. 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. 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.

3. Hall, Bronwyn H. and Nathan Rosenberg (eds). (2010). *Handbook of the Economics of Innovation*, Elsevier. https://www.sciencedirect.com/handbook/handbook-ofthe-economics-of-innovation.

4. Freeman, Chris and Luc Soete. (2000). *The Economics of Industrial Innovation*, 3rd ed., The MIT Press. https://ebookcentral.proquest.com/lib/hselibraryebooks/reader.action?docID=3061321&query=chris+freeman.

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.532

L	T	P	Cr
3	0	0	3

Total Hours: 45

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

- Comprehend the theories of international trade,
- Identify the emerging patterns of international trade
- Examine the prospects of regional integration, and
- Elucidate the role of international investment.

Unit-I 11 Hours

Conceptualization of Trade: Classical, Neo Classical and New Theories of trade, Terms of trade, Prebisch and Singer views on terms of trade, Environmental and Social issues of trade, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-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. Brain Storming and Problem Solving.

Unit-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. 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*, McMilan 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*, Quartely 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). *Applied International 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 Economic*s, 2nd edition, Worth Publishers. .

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)

27. COVID-19 and international trade Issues and actions - OECD (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,

	L	T	P	Cr
	0	0	4	2

Course Name: Data Analysis Using SPSS

Course Code: ECO. 533

Total Hours: 30

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

- Use SPSS for data entry, coding and recoding of variables.
- Use SPSS in generating tables and figures.
- Use SPSS in performing statistical tests, and
- Use SPSS in estimating regression models.

Unit-I: Introduction and Data Management: **07 Hours**

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, brain storming and problem solving.

Unit-II: Descriptive Analysis of Data: **08 Hours**

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, brain storming and problem solving.

Unit-III: Correlation and Regression Analysis: **08 Hours**

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, brain storming and problem solving.

Unit-IV: More topics on Regression Analysis: **07 Hours**

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, brain storming and problem solving.

Transaction Mode: Lecture, discussion, demonstration, hands on with econometric software SPSS, blended learning.

Suggested Readings:

1. S. and 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

Web links:

1. **https://www.spss-tutorials.com/basics/**

Course Name: Decision Making Skills

L	T	P	Cr
0	0	4	2

Course Code: ECO.534

Total Hours: 30

Learning Outcome

On successful completion of this course, students will be able to:

- Describe concept and nature of decision making.
- Discuss decision making process.
- Apply decision making techniques in real life situation.
- Make effective decisions in real life situation.

Unit-I   **07 Hours**

Introduction to decision making: Decision making, Nature of decision making, Importance of making good decisions, Relevant cases, brain storming and problem solving.

Unit-II   **08 Hours**

Decision making process: Principles of decision making, Decision making process, Steps of decision making, Relevant cases, brain storming and problem solving.

Unit-III   **08 Hours**

Decision making techniques: Decision making techniques, making in relation to problem solving, Decision making in relation to creativity, Relevant cases, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Transaction Modes:

Course content will be delivered using presentation, lectures, case study, debates, brainstorming, 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: Economics of Growth and Development

L	T	P	Cr
4	0	0	4

Course Code: ECO.551

Total Hours: 60

Learning Outcome:

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

- Understand concepts and models of growth and development and their measurement;
- Understand investment criterion for development, and techniques of economic production.

Unit-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. Brain Storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-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. Brain Storming and problem solving.

Unit-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, 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 Raunch, 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

L	T	P	Cr
4	0	0	4

Course Code: ECO.552

Total Hours: 60

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

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

Unit-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. Brain Storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-III   **15 Hours**

Infrastructure Development: physical and social; public-private partnerships; Natural Resources; Foreign capital in India; and Foreign Direct and Portfolio Investments. Brain Storming and problem solving.

Unit-IV   **15 Hours**

Centre-State Financial Relations: 15th 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, 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. Kapila, U. (2011). *Indian Economy: Performance and Policies*. Academic Foundation, India.

3. Singh, R. (2017). *Indian Economy*. New Delhi: Tata McGraw-Hill Education.

4. Verma, S. (2017). *The Indian Economy*. Unique Publishers, India.

5. Journals Economic and Political Weekly, various issues. Millennial Asia, various issues.

Course Name: Research Methods in Economics

L	T	P	Cr
4	0	0	4

 Course Code: ECO.553

Total Hours: 60

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

- Identify an appropriate research problem,

- Formulate the research hypotheses,

- Craft out a feasible research design,

- Carry out data collection, analysis and interpretation, and

- Prepare a research report.

Unit-I   **15 Hours**

Introduction: 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, brain storming and problem solving.

Unit-II   **15 Hours**

Research Design: Qualitative, Quantitative and Mixed Research Designs Sample Methods – Probability and non-probability sampling methods. Use of ICT in sampling, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-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 softwares for plagiarism detection, brain storming and problem solving.

Transaction Mode: Lecture, problem solving, group discussion, practical sessions, blended learning, self-study, demonstrations using MS Word, Excel and SPSS, 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*, Plagrave Publication.

Course Name: Research Proposal

L	T	P	Cr
4	0	0`	4

Course Code: ECO.555

Total Hours: 60

Learning outcomes: After completion of the course students will be able to:

- Identify research gaps on a selected research area
- Summarize the findings of different research studies
- Formulate objectives, different types of hypothesis / research questions as applicable
- Select appropriate approach and design for different research topics
- Develop tools for research
- Practice writing references using APA format
- Prepare a research proposal on any emerging problem in economics

Content

1. Identification and Selection of Research Problem
2. Review of Related Literature
3. How to identify the gaps in research?
4. Writing title of research problem
5. Formulation of Objectives, Hypotheses/ Research questions
6. Writing Rationale of Study
7. Writing of a suitable design and approaches for the research proposal
8. Identify appropriate tools for their study
9. Writing of reference in APA 7th edition format

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 websites

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 (Third Semester)		
	Marks	**Evaluation Method**
Supervisor	50	Dissertation proposal and presentation
HoD and Senior-most Faculty of the Department	50	Dissertation proposal and presentation

Course Name: Practices of Economics

L	T	P	Cr
2	0	0	2

Course Code: ECO.556

Total Hours: 30

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

- Develop the logical reasoning ability,
- Develop the analytical skill, and
- Compete for National level competitive examinations in the field of economics.

Unit-I: Quantitative Methods: **8 Hours**

Central tendency, dispersion, skewness, kurtosis, correlation, regression, index number, time series analysis, theory of probability and probability distribution; sampling techniques/methods and sampling errors, statistical inferences – hypothesis testing, Application of differential and integral calculus, Linear algebra, static optimization, Input-output model, linear programming and Game theory; difference and differential equations with applications. Peer discussion, brain storming and problem solving.

Unit-II: Micro Economics and   Macro Economics Analysis: **8 Hours**

Theory of Consumer behaviour; theory of production and costs; decision making under uncertainty; pricing and output under different forms of market structure; Game theory, factor pricing analysis; elements of general equilibrium, efficiency criteria, welfare economics, and asymmetric information. National income, Theories, Models and Approaches of determination of output and employment, demand and supply of money, Phillips curve analysis, business cycle theories, demand for and supply of money, Macroeconomic equilibrium and macroeconomic policies; rational expectation hypothesis. Brain storming and problem solving.

Unit-III: Economic Growth and Development: **3 Hours**

Growth and Development, Theories and Models of economic growth and development, agriculture, industry, technology and international trade as engines of economic growth; technical progress, indicators of development, poverty and inequality, social sector development. Brain storming and problem solving.

Unit-IV: International Economics, Banking and Public Finance: **8 Hours**

Theories, model and approaches of international trade; terms of trade, balance of payments, theories of regionalism at global level, trade policy and reforms; exchange rate and foreign exchange market; gains from trade; trade barriers; GATT, WTO, IMF & World Bank, brain storming and problem solving.

Money Supply, Central Bank, Commercial Banking, Monetary Policy, NBFIs, Capital market; Role of Govt, Market failure, Regulation of market, Fiscal functions of Govt, The public budgets, public expenditure, revenue, debt, public budget, fiscal federalism, and fiscal policy. Brain storming and problem solving.

Unit-V: Indian Economy: **3 Hours**

Economic growth in India, agriculture, industry, services, public finance, foreign trade, rural development, urban development, foreign trade, infrastructure development, economic reforms, economic policies, poverty, inequality and unemployment, money and capital markets; environment and sustainable development. Brain storming and problem solving.

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

Suggested Readings

1. *Schaum's outline of introduction to probability and statistics*, McGraw-Hill Education, 2011

2. *Schaum's outline of introduction to mathematical economics*, McGraw-Hill Education, 2011

3. *Schaum's outline of mathematical methods for business and economics*, McGraw-Hill Education, 2009

4. *Schaum's outline of statistics and econometrics*, McGraw-Hill Education, 2011

5. *Schaum's outline of principles of economics*, McGraw-Hill Education, 2011

6. *Schaum's outline of microeconomics*, McGraw-Hill Education, 2011

7. *Schaum's outline of macroeconomics*, McGraw-Hill Education, 1997

8. *Schaum's outline of international economics*, McGraw-Hill Education, 1995

9. *Schaum's Outline of Theory and Problems of Development Economics*, McGraw-Hill Education, 2001

10. *Schaum's Outline of Theory and Problems of Development Economics*, McGraw-Hill Education, 2001

11. Patrick J. Welch. (2012). *Economics*: *Theory and Practice*, Wiley

12. Peter W. Abelson. (2012). *Public Economics: Principles and Practice*, McGraw-Hill Education

13. Ramesh Singh. (2017). *Indian Economy*, McGraw-Hill Education

14. Srinivas, Vikas Kumar, S. R. Kantwa and S. V. Sai Prasad (2014), *Agricultural Economics*, New Vishal Publications

15. Nick Hanley. (2007). *Environmental Economics: In Theory and Practice*, Palgrave
Macmillan.

	L	T	P	Cr
	1	0	0	1

Course Title: Entrepreneurship

Course Code: ECO.557

Total Hours: 15

Course Outcomes: On the completion of this course, the learners will:

- Understand the basic concepts of entrepreneur, entrepreneurship and its importance.

- Aware of the issues, challenges and opportunities in entrepreneurship.

- Develop capabilities of preparing proposals for starting small businesses.

- Know the availability of various institutional supports for making a new start-up.

Unit – 1   **3 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, brain storming and problem solving.

Unit – 2   **5 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, brain storming and problem solving.

Unit – 3   **4 Hours**

Various Case studies of Entrepreneurship in agriculture and its allied activities: industries, services etc. Peer discussion on role of entrepreneurship in various sectors of Indian Economy, brain storming and problem solving.

Unit – 4   **3 Hours**

Social entrepreneurship: Meaning and its significance in India. 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.

2. Chandra, Prasaaan. (2018). *Project Preparation, Appraisal, Implementation*, Tata Mc-Graw Hills.

3. Desai, Vasant. (2019). *Management of a Small Scale Industry*, Himalaya Publishing House.

4. Jain, P. C. (2015). *Handbook of New Entrepreneurs*, Oxford University Press.

5. Srivastava, S. B. (2009). *A Practical Guide to Industrial Entrepreneurs*, Sultan Chand & Sons.

Course Name: Punjab Economy

L	T	P	Cr
3	0	0	3

Course Code: ECO.554

Total Hours: 45

Learning Outcome: On completion of this course, the students will be able to understand structural changes and patterns of development in Punjab's economy.

Unit-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. Peer review and discussion, brain storming and problem solving.

Unit-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. Peer review and discussion, brain storming and problem solving.

Unit-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. Peer review and discussion, brain storming and problem solving.

Unit-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. 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-Ouput 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, L. and Singh, N. (2016). *Economic Transformation of a Developing Economy:* The Experience of Punjab, India, Springer.

12. 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.

13. Singh, L. & Bhangoo, K.S. and Sharma, R. (2016). *Agrarian Distress and Farmer Suicides in North India*, Routledge India

14. Singh, I., Singh, S. and Singh, L. (2014). *Punjab's Economic Development in the Era of Globalization,* L G Publishers.

Course Name: Environmental Economics and Policy

L	T	P	Cr
3	0	0	3

Course Code: ECO.558

Total Hours: 45

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

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

Unit-I   **11 Hours**

Environment and Development: Economics and the Environment, Evolution and Growth of Environmental Economics, Relation between Environment and Growth, Environmental Kuznets hypothesis. peer discussion and case analysis, brain storming and problem solving.

Unit-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. brain storming and case analysis, brain storming and problem solving.

Unit-III   **11 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. Understanding various concepts and their peer review, brain storming and problem solving.

Unit-IV   **12 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 to be added in the course on Environmental Economics and Policy, 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 minimising environmental degradation. Peer discussion and case analysis, brain storming and problem solving.

Transaction Mode: Lecture, problem solving, group discussion, practical sessions, blended learning, self-study, demonstrations using MS Word, Excel and SPSS.

Suggested Readings:

1. Kolstad, C.D. (2011). *Intermediate Environmental Economics*. New Delhi: Oxford University Press.

2. Singh, Katar and Shishodia, Anil. (2007). *Environmental Economics*: Theory and Applications. New Delhi: Sage Publications.

3. Berck, P. (2015). *The Economics of the Environment.* New Delhi: Pearson India.

4. Kumar, Pushpam. (2009). *Economics of the Environment and Development*. New Delhi: Ane Book.

5. Muthukrishna, S. (2010). *Economics of Environment.* New Delhi: Phi learning Pvt. Ltd.

Course Name: Public Economics

L	T	P	Cr
3	0	0	3

Course Code: ECO.559

Total Hours: 45

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

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

Unit-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. Brain storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-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, brain storming and problem solving.

Unit-IV

Federal Finance: principles and problems of Federal finance – centre-state financial relations, 14th Finance Commission; Fiscal Policy: meaning and objective, fiscal multipliers, compensatory fiscal policy, functional finance approach, fiscal policy for inflation, full employment and economic growth. 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, Raghbendra. (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

L	T	P	Cr
3	0	0	3

Course Code: ECO.560

Total Hours: 45

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

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

Unit-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. peer discussion and case analysis, brain storming and problem solving.

Unit-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. Brain Storming and problem solving.

Unit-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. peer discussion and case analysis, brain storming and problem solving.

Unit-IV   **11 Hours**

Agricultural Globalization and Developing Countries: Industry and Services in the globalization process: Labour, Migration and Outsourcing; Globalization, State, Sovereignty and the Civil Society; The World Social Forum. peer review of various problems, brain storming and problem solving.

Transaction Mode: Lecture, problem solving, group discussion, practical sessions, blended learning, self-study, demonstrations using MS Word, Excel and SPSS, blended learning.

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. (2004). *Advanced International Trade, Theory and Evidence,* Published by Princeton University Press.
14. Robert. C. Feenstra, and Alan, M.Taylor. (2011). *International Economics*, second edition Worth Publishers.

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*. Basingsstoke: Palgrave.

20. Stiglitz, J. (2002). *Globalization and its Discontents*. London: Pengiun.

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

L	T	P	Cr
3	0	0	3

Course Code: ECO.561

Total Hours: 45

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

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

Unit-I   **11 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. peer discussion and case analysis, brain storming and problem solving.

Unit-II   **12 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. peer discussion and case analysis. Peer review of various problems, brain storming and problem solving.

Unit-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. peer discussion and case analysis, brain storming and problem solving.
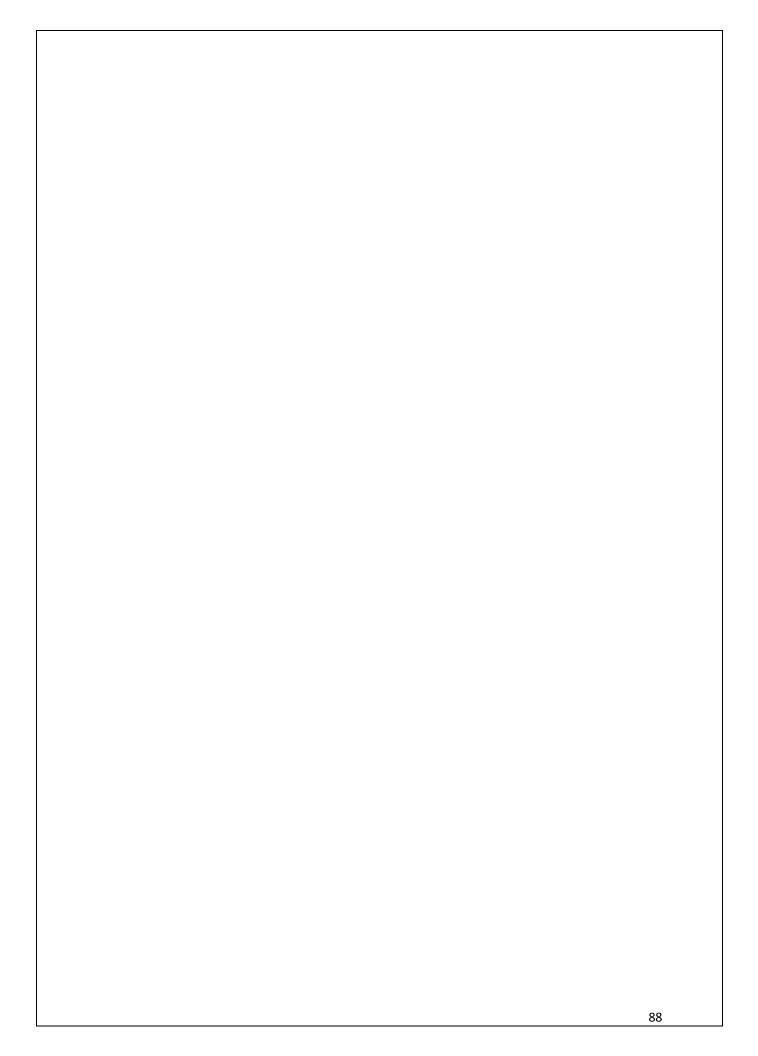
Unit-IV   **11 Hours**

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. peer discussion and case analysis, brain storming and problem solving.

Transaction Mode: Lecture, problem solving, group discussion, practical sessions, blended learning, self-study, demonstrations using MS Word, Excel and SPSS.

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. Ehsanual, 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

L	T	P	Cr
3	0	0	3

Course Code: ECO.562

Total Hours: 45

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

- Enhance the knowledge of advanced econometric modelling,

- Build up software skills in data analysis, and

- Use econometric tools and techniques in economic and business research.

Unit-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; Multi-variate 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, brain storming and problem solving.

Unit-II   11Hours

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: 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. Model fitting with qualitative data collected through micro (household and individual) level survey data, brain storming and problem solving.

Unit-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. Advanced level model fitting using pooled and panel data for better policy making, brain storming and problem solving.

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. Working with econometric software for enhancing skill endowment of the students, brain storming and problem solving.

Transaction Mode: Lecture, discussion, demonstration, hands on with econometric software like stata and e-views, blended learning.

Suggested Readings:

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

16. Wooldridge, J. (2009). Instrumental variables estimation and two stage least squares. *Introductory Econometrics: A Modern Approach. Nashville, TN: South-Western.*

17. 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: Dissertation

L	T	P	Cr
0	0	40	20

Course code: ECO.600

Total Hours: 300

Learning Outcome

After completion of the course the students will be able to

- Conduct research independently in economics,

- Develop analytical and logical thinking in the process of conducting research.

- Apply the implications of research in generating new knowledge.

Content:

In 4th semester, students will collect the data, analyse the data and write the dissertation as per 'Research Proposal' prepared in third semester. The structure of dissertation will include Title page, Certification, Table of Contents, List of tables, List of figures, Introduction, Review of literature, Methodology, Results and Discussion, Conclusion, References, Appendices.

Evaluation Criteria:

Dissertation (Fourth Semester)		
	Marks	**Evaluation**
Supervisor	50	Continuous assessment (regularity in work, mid-term evaluation) dissertation report, presentation, final viva-voce
External expert, HoD and Senior-most Faculty of the Department	50	Dissertation report (30), presentation (10), final viva-voce (10)

Group dissertation may be opted, with a group consisting of a maximum of four students. These students may work using single approach or multidisciplinary approach. Research Proposal/Dissertation can be taken up in collaboration with industry or in a group from within the discipline or across the discipline.