

BANASTHALI VIDYAPITH

Master of Arts (Economics)



Curriculum Structure

First Semester Examination, December, 2019
Second Semester Examination, April/May, 2020
Third Semester Examination, December, 2020
Fourth Semester Examination, April/May, 2021

BANASTHALI VIDYAPITH
P.O. BANASTHALI VIDYAPITH
(Rajasthan)-304022

No. F. 9-6/81-U.3

Government of India

**Ministry of Education and Culture
(Department of Education)**

New Delhi, the 25th October, 1983

NOTIFICATION

In exercise of the powers conferred by Section 3 of the University Grants Commission Act, 1956 (3 of 1956) the Central Government, on the advice of the Commission, hereby declare that Banasthali Vidyapith, P. O. Banasthali Vidyapith, (Rajasthan) shall be deemed to be a University for the purpose of the aforesaid Act.

Sd/-

(M. R. Kolhatkar)

Joint Secretary of the Government of India

NOTICE

Changes in Bye-laws/Syllabi and Books may from time to time be made by amendment or remaking, and a Candidate shall, except in so far as the Vidyapith determines otherwise, comply with any change that applies to years she has not completed at the time of change.

Sl. No.	Contents	Page No.
1	Programme Educational Objectives	4
2	Programme Outcomes	5
3	Curriculum Structure	7
4	Evaluation Scheme and Grading System	11
5	Syllabus	13

Programme Educational Objectives

Department of Economics at Banasthali aims to train students to successfully take part in the exciting profession of Economics as Economists, Managers, Policy Makers, Bureaucrats, Researchers, Journalists and other forms of decision makers. The profession of Economics requires multiple skills and capabilities related to observing the decision making by economic agents at a micro and/or macro level and analytically interpreting these acts in a larger theoretical framework. The observation part requires Economists to collect data and the interpretation part requires that data is analysed and conclusions drawn within a theoretical framework.

These demands make it essential for our curriculum to focus on both the real and the theoretical world. In our curriculum design, Emphasis is therefore given on Economic Theory (Understanding), Indian Economy (Information) and Quantitative Techniques (Tools). To keep up with the dynamic real world and the ever expanding theoretical world it is ensured that the Curriculum is reviewed and if necessary revised every year.

The broad Course objectives are to impart knowledge and develop understanding of the economy at national and global level, and at the same time provide necessary analytical tools and intellectual training to make meaningful observations and interpretations.

The main objectives of the Masters programme in Economics are,

- To provide exemplary education in a stimulating environment where delivery of knowledge of Economics is integrated with nationally and internationally recognized research which enables students to undergo a transformative learning process.
- To prepare competent Economists at various levels for India.
- To expose students to theoretical approaches within the field of Economics and allied subjects and promote respect for all approaches.
- To develop gender-neutral attitudes and practices, respect for all races, nations, religions, culture, language and traditions.
- To promote scientific temper amongst the students in particular and the society in general.
- To nurture a temperament that would enable individuals to set and work towards self-driven performance goals, entrepreneurial ventures and overall leadership.

Programme Outcomes

- PO1: Knowledge of Economics:** Students will be able to develop understanding of economic concepts pertaining to the behavior of economic agents from micro and macro perspectives. Along with this they will be able to explain and analyze economic theories and models.
- PO2: Planning Abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
- PO3: Problem Analysis:** Utilize economic, philosophical and scientific techniques to achieve clear, analytical and critical thinking process for solving problems and making logical decisions in their everyday life.
- PO4: Modern Tool Usage:** Ability to understand, select and apply appropriate methods and procedures of modern computing tools to achieve efficiency in economic problem solving, research and communication.
- PO5: Leadership Skills:** Equip the students with critical thinking and analytical tools to find solutions of economic problems and thereby play a leadership and/or participatory role in the society.
- PO6: Professional identity:** Apply their knowledge and understanding in their professional roles as Economists, Managers, Government Officials, Teachers and/or Researchers to achieve self growth and the larger welfare of the Society inclusive of all stakeholders.
- PO7: Professional Ethics:** Have a deep sense of respect for all disciplines and theoretical approaches so that a well rounded, dogma free intellectual activity is feasible.
- PO8: Economic Communication:** Develop critical thinking on current issues in the framework of economics and command the ability to effectively communicate economic ideas.
- PO9: Economists and Society:** Develop an interdisciplinary approach to analyse economic issues and thereby achieve the broader objective of becoming an informed citizen.

- PO10 Environment and Sustainability:** Understand the link between Environment and the Economy. Appreciate the role of Economic thinking in solving environmental problems. Understand and appreciate the concept of sustainable development.
- PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of economic, societal and technological change. Have the ability of Self assessment and use feedback effectively from others to identify learning gaps and work on these gaps on an ongoing basis.

Curriculum Structure

Master of Arts (Economics)

First Year

Semester-I

Course Code	Course Name	L	T	P	C*
ECO 401	Macro Economic Theory - I	5	0	0	5
ECO 403	Micro Economic Theory - I	5	0	0	5
ECO 406	Public Economics	5	0	0	5
MATH 408	Mathematics For Economics	5	0	0	5
SSC 402	Social Science Perspectives	5	0	0	5
Semester Total:		25	0	0	25

Semester-II

Course Code	Course Name	L	T	P	C*
ECO 402	Macro Economic Theory - II	5	0	0	5
ECO 404	Micro Economic Theory - II	5	0	0	5
ECO 405	Monetary Economics and Modern Banking	5	0	0	5
STAT 404	Statistical Methods for Economics	5	0	0	5
SSC 401	Research Techniques in Social Sciences	5	0	0	5
Semester Total:		25	0	0	25

Second Year

Semester-III

Course Code	Course Name	L	T	P	C*
ECO 502	Economics of Growth and Development	5	0	0	5
ECO 516	Financial Economics	5	0	0	5
ECO 507	International Trade and Commercial Policy	5	0	0	5
CS 513	Computer Applications	3	0	0	3
CS 513L	Computer Applications Lab	0	0	4	2
	Discipline Elective	5	0	0	5
	Reading Elective – I	0	0	0	2
Semester Total:		23	0	4	27

Semester-IV

Course Code	Course Name	L	T	P	C*
ECO 501	Economics of Environment	5	0	0	5
ECO 505	Indian Economic Development	5	0	0	5
ECO 506	International Money and Finance	5	0	0	5
SSC 501	Women Studies	5	0	0	5
	Open Elective	5	0	0	5
	Reading Elective – II	0	0	0	2
Semester Total:		25	0	0	27

List of Discipline Elective

Course Code	Course Name	L	T	P	C*
ECO 509	Agriculture Economics	5	0	0	5
ECO 510D	Dissertation	0	0	10	5
ECO 511	Economics of Discrimination	5	0	0	5
ECO 512	Economics of Education	5	0	0	5
ECO 513	Economics of Health	5	0	0	5
ECO 515	Economics of Insurance	5	0	0	5
ECO 519	Industrial Economics	5	0	0	5
ECO 520	Labour Economics	5	0	0	5
ECO 521	Population Studies	5	0	0	5
ECO 522	Regional Economics	5	0	0	5
ECO 523	Rural Economics	5	0	0	5
ECO 525	Urban Economics	5	0	0	5
STAT 509	Econometrics	5	0	0	5

List of Reading Elective

Course Code	Course Name	L	T	P	C*
ECO 514R	Economics of Infrastructure	0	0	0	2
ECO 517R	Financial Institutions and Markets	0	0	0	2
ECO 518R	Global Economy	0	0	0	2
ECO 524R	Startup Economics	0	0	0	2

List of Online Reading Elective

Course Name
Energy within Environmental Constraints
Making Government work in Hard Places

*** L - Lecture hrs/week; T - Tutorial hrs/week;
P-Project/Practical/Lab/All other non-classroom academic activities,
etc. hrs/week; C - Credit Points of the Course**

Student can opt open (Generic) elective from any discipline of the Vidyapith with prior permission of respective heads and time table permitting.

Every Student shall also opt for:

Five Fold Education: Physical Education I, Physical Education II,
Five Fold Education: Aesthetic Education I, Aesthetic Education II,
Five Fold Education: Practical Education I, Practical Education II
one each semester

Five Fold Activities

Fine Arts		Physical Education and Sports	
BVFF 101	Classical Dance (Bharatnatyam)	BVFF 201	Aerobics
BVFF 102	Classical Dance (Kathak)	BVFF 202	Archery
BVFF 103	Classical Dance (Manipuri)	BVFF 203	Athletics
BVFF 104	Creative Art	BVFF 204	Badminton
BVFF 105	Folk Dance	BVFF 205	Basketball
BVFF 106	Music-Instrumental (Guitar)	BVFF 206	Cricket
BVFF 107	Music-Instrumental (Orchestra)	BVFF 207	Equestrian
BVFF 108	Music-Instrumental (Sarod)	BVFF 208	Flying - Flight Radio Telephone Operator's Licence (Restricted)
BVFF 109	Music-Instrumental (Sitar)	BVFF 209	Flying - Student Pilot's Licence
BVFF 110	Music-Instrumental (Tabla)	BVFF 229	Aeromodelling
BVFF 111	Music-Instrumental (Violin)	BVFF 210	Football
BVFF 112	Music-Vocal	BVFF 211	Gymnastics
BVFF 113	Theatre	BVFF 212	Handball
		BVFF 213	Hockey
	Social Service and Extension Activities	BVFF 214	Judo
BVFF 301	BanasthaliSewa Dal	BVFF 215	Kabaddi
BVFF 302	Extension Programs for Women Empowerment	BVFF 216	Karate – Do
BVFF 303	FM Radio	BVFF 217	Kho-Kho
BVFF 304	Informal Education	BVFF 218	Net Ball
BVFF 305	National Service Scheme	BVFF 219	Rope Mallakhamb
BVFF 306	National Cadet Corps	BVFF 220	Shooting
		BVFF 221	Soft Ball
		BVFF 222	Swimming
		BVFF 223	Table Tennis
		BVFF 224	Tennis
		BVFF 225	Throwball
		BVFF 226	Volleyball
		BVFF 227	Weight Training
		BVFF 228	Yoga

Evaluation Scheme and Grading System

Continuous Assessment (CA) (Max. Marks)					End-Semester Assessment (ESA) (Max. Marks)	Grand Total (Max. Marks)
Assignment		Periodical Test		Total (CA)		
I	II	I	II			
10	10	10	10	40		
					60	100

In all theory, laboratory and other non classroom activities (project, dissertation, seminar, etc.), the Continuous and End-semester assessment will be of 40 and 60 marks respectively. However, for Reading Elective, only End semester exam of 100 marks will be held. Wherever desired, the detailed breakup of continuous assessment marks (40), for project, practical, dissertation, seminar, etc shall be announced by respective departments in respective student handouts.

Based on the cumulative performance in the continuous and end-semester assessments, the grade obtained by the student in each course shall be awarded. The classification of grades is as under:

Letter Grade	Grade Point	Narration
O	10	Outstanding
A+	9	Excellent
A	8	Very Good
B+	7	Good
B	6	Above Average
C+	5	Average
C	4	Below Average
D	3	Marginal
E	2	Exposed
NC	0	Not Cleared

Based on the obtained grades, the Semester Grade Point Average shall be computed as under:

$$SGPA = \frac{CC_1 * GP_1 + CC_2 * GP_2 + CC_3 * GP_3 + \dots + CC_n * GP_n}{CC_1 + CC_2 + CC_3 + \dots + CC_n} = \frac{\sum_{i=1}^n CC_i * GP_i}{\sum_{i=1}^n CC_i}$$

Where n is the number of courses (with letter grading) registered in the semester, CC_i are the course credits attached to the i^{th} course with letter grading and GP_i is the letter grade point obtained in the i^{th} course. The courses which are given Non-Letter Grades are not considered in the calculation of SGPA.

The Cumulative Grade Point Average (CGPA) at the end of each semester shall be computed as under:

$$CGPA = \frac{CC_1 * GP_1 + CC_2 * GP_2 + CC_3 * GP_3 + \dots + CC_n * GP_n}{CC_1 + CC_2 + CC_3 + \dots + CC_n} = \frac{\sum_{i=1}^n CC_i * GP_i}{\sum_{i=1}^n CC_i}$$

Where n is the number of all the courses (with letter grading) that a student has taken up to the previous semester.

Student shall be required to maintain a minimum of 4.00 CGPA at the end of each semester. If a student's CGPA remains below 4.00 in two consecutive semesters, then the student will be placed under probation and the case will be referred to Academic Performance Review Committee (APRC) which will decide the course load of the student for successive semester till the student comes out of the probationary clause.

To clear a course of a degree program, a student should obtain letter grade C and above. However, D/E grade in two/one of the courses throughout the UG/PG degree program respectively shall be deemed to have cleared the respective course(s). The excess of two/one D/E course(s) in UG/PG degree program shall become the backlog course(s) and the student will be required to repeat and clear them in successive semester(s) by obtaining grade C or above.

After successfully clearing all the courses of the degree program, the student shall be awarded division as per following table.

Division	CGPA
Distinction	7.50 and above
First Division	6.00 to 7.49
Second Division	5.00 to 5.99
Pass	4.00 to 4.99

CGPA to % Conversion Formula: % of Marks Obtained = CGPA * 10

First Semester

ECO 401 Macro Economic Theory - I

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Describe Circular flow of income and expenditure and analyse the effect of leakages and injections in various sector of the economy.
- Calculate National Income and its related aggregates and analyse the problems and limitation of National income estimation
- Describe basic Classical Model of output and employment and estimate the effect of money market and labour market changes on the level of output and employment.
- Analyse Keynesian Model of output and employment and evaluate the level and process of National Income determination
- Explain the process and importance of Multiplier
- Analyse and Elaborate Income-Consumption Relationship
- Explain Absolute Income, Relative Income and Permanent Income Hypothesis

Section – A

Circular flow of income in two, three and four sector economy; National income: concepts, components and measurement of national income.

Section- B

Basic classical model: Classical theory of output and employment; Say's law of market and Quantity theory of money, Classical model without saving and investment – Effects of a change in money supply, Demand for labour and Supply of labour, Effects of rigid money wage, Classical theory with saving and investment.

National income determination (two, three, and four sector economies): The Keynesian model – The aggregate demand & supply approach; saving and investment approach.

Section-C

Theory of multiplier: Static and dynamic multipliers, Super multiplier, Paradox of thrift; Government purchases, Transfer payments and Tax multipliers, Balanced budget multiplier, Foreign trade multiplier.

Consumption demand: Income – Consumption relationship – Absolute income, Relative income, Permanent income and Life cycle hypotheses.

Recommended Books:

1. Branson, W.H. (2005). *Macro Economic Theory and Policy*. Harper and Row, New York.
2. Dernberg. T. (1980). *Macro Economics*. McGraw Hill, Koga Kusha, Tokyo.
3. Dornbusch, R and S. Fischer. (1978). *Macro Economics*. McGraw Hill. Koga Kusha, Tokyo.
4. Edgmand, M.R. (1987). *Macro Economics – Theory and Policy*. Prentice – Hall of India, New Delhi.
5. Shapiro, E. (2015). *Macro Economic Analysis*, 5thed, Galgotia Publications (p) Ltd., New Delhi.
6. Jha, R. (2008). *Contemporary Macro Economic Theory and Policy*. Willey Eastern Ltd., India.

E- Learning Material

- 1 <http://sites.northwestern.edu/neweresources/2009/03/11/american-economic-journal-macroeconomics/>
- 2 <http://www2.econ.iastate.edu/tesfatsi/sources.html>
- 3 <https://www.oecd-ilibrary.org/economics>
- 4 <https://www.imf.org/external/index.html>
- 5 <http://epwrfits.in/index.aspx>
- 6 <https://www.ft.com/>
- 7 <http://www.delnet.in/>
- 8 <https://www.elgaronline.com/browse?access=user&level=parent>

ECO 403 Micro Economic Theory- I

Max. Marks : 100

L T P C

(CA: 40 + ESA: 60)

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Analyze and appraise cardinal, ordinal and revealed preference approaches to consumer behaviour.
- Discuss various concepts of elasticity and its measurement.
- Apply the concept of elasticity in business decision making.
- Discuss the behaviour of production in short run and long run.
- Apply the theory of production in producer's decision making.
- Describe various revenue concepts and explain the behaviour of revenue under different market structures.
- Analyse short run and long run equilibriums of firms under perfect competition and monopoly.

Section-A

Theory of demand: Utility analysis – Assumptions and laws of utility analysis; The indifference curve theory: Characteristics of an indifference curve, Concept of Price line, Consumer's equilibrium; Price, income and substitution effects (Hicks and Slutsky's views), Breaking up the Price effect into income and substitution effects; Normal, inferior and giffen goods; Derivation of demand curve through price consumption curve (PCC); Violation of the premises about indifference curves; Satiation and Lexicographical orderings; Elasticity of demand: Price, income and cross elasticity of demand, Elasticity of substitution; The Revealed Preference Theory.

Section –B

Theory of Production: Concepts of production function, Product curves and Iso quants; Laws of production: Law of variable proportions, Symmetry between three stages of production. Degree of homogeneity and Laws of returns to scale, Ridge lines, Iso-cost line, Choice of optimal combination of factors, Expansion path; Types of production function: Linear

homogeneous, Cobb Douglas, The CES and the Fixed coefficient production functions.

Section-C

Market Structure: Basic concepts of Revenue- Total Revenue (TR) Average Revenue (AR) and Marginal revenue (MR); Relationship between Average Revenue, Marginal Revenue and price elasticity of demand; Theory of cost in the short run and long run; Perfect Competition: Short run and long run equilibrium of a firm and industry. Monopoly: Short run and long run equilibrium of a monopolist; Price discrimination under monopoly: First degree, second degree and third degree discrimination.

Recommended Books:

1. Baumol, W.J. (2015). *Economic Theory and Operations Analysis*. Prentice Hall of India.
2. Da, Costa, G.C., (1980). *Production, Prices and Distribution*. New Delhi: Tata McGraw Hill,
3. Deaton, A.S. and J. Muellbauer. (2012). *Economics and Consumer Behavior*, Cambridge University Press, Cambridge.
4. Dobb, M., & Dobb, M. H. (1975). *Theories of value and distribution since Adam Smith: Ideology and economic theory*. Cambridge University Press.
5. Gould, J. P., & Ferguson, C. E. (1980). *Microeconomic theory* (No. 04; HB172, G6 1980.). RD Irwin.
6. Hirshleifer, J., & Glazer, A. (1992). *Price theory and applications*. Prentice Hall
7. Koutsoyiannis, A. (1975). *Modern microeconomics*. Springer. Macmillan Press, London.
8. Kreps, D. M. (1990). *A course in microeconomic theory* (Vol. 41). Princeton, NJ: Princeton university press.
9. Sen, A. (1976). *Micro Economics: Theory and Applications*, Oxford University Press, New Delhi
10. Varian, H. R. (1992). *Microeconomic Analysis* WW Norton & Co. New York.

E- Learning Material :

1. www.aeaweb.org
2. <https://www.economicsnetwork.ac.uk>

ECO 406 Public Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Identify the role and functions of the government in a modern economy.
- Understand the concepts of public and private goods.
- Analyse the allocative and equity aspects of taxation.
- Critically examine different theories of public expenditure.
- Differentiate concepts of impact, incidence and Shifting of taxes in different market framework.
- Understand various sources of debts and methods redeeming it.
- Explain federal finance and centre-state financial relation in India.

Section- A

Role of government: Changing perspectives about role of government in organized society, Concept of pure public goods and pure private goods; Taxation: Allocative and equity aspect of tax; Theory and measurement of dead weight losses, Equity or justice in taxation; Benefit and Ability to pay approaches.

Section- B

Public expenditure: Hypothesis to explain the growth of public sector- Wagner's law of increasing state activities, The Peacock-Wiseman hypothesis; Theory of incidence and alternative concepts of incidence; The incidence and shifting of a tax under monopoly and perfect competition. Public debt: Meaning, sources effects, Debt redemption; Concepts of budget deficit, Fiscal consolidation in India.

Section- C

Federal finance in India: Principles of federal finance, Functions and sources of revenue of federal governments (Union, State and Local); Fiscal federalism in India: Vertical and Horizontal imbalances, Constitutional provision; Resource transfer from central government: Recommendation of latest finance commission; Criteria for transfer of resources; Centre-state financial relations in India.

Recommended Books:

1. Atkinson, A.B. and J.E. Stiglitz. (2000). *Lectures on Public Economics*. New York: Tata McGraw Hill.
2. Aurbach, A.J. and M. Feldstein (Eds) (1985). *Handbook of Public Economics*. Amsterdam: North Holland.
3. Dorfman R. (Ed.) (1970). *Measuring the Benefits of Government Investment Brookings Institution*. Washington: Brookings Institution.
4. Goode, R. (1986). *Government Finance in Developing Countries*. New Delhi: Tata McGraw Hill.
5. Jha, R. (1999). *Modern Public Economics*. London: Routledge.
6. Musgrave, R.A. (1959). *The Theory of Public Finance*. Tokyo: McGraw Hill.
7. Musgrave, R.A., and P.B. Musgrave (1970). *Public Finance in Theory and Practice*. Tokyo: McGraw Hill.
8. Stiglitz, J. E. (2005). *Economics of Public Sector*. New York: W.W. Norton and Company.
9. Tyagi, B.P and Singh, H.P. (2016). *Public Finance*. Meerut: Jai Prakash Nath & Co.
10. Bhatia, H.L. (2018). *Public Finance*. New Delhi: Vikas Publishing House.
11. Hajela, T.N. (2015). *Public Finance*. New Delhi: Ane Books Pvt. Ltd.
12. Bhargava, P.K. (1991). *India's Fiscal Crisis*. New Delhi: Ashish Publishing House.
13. Chelliah, R.J.et.al. (1981). *Trends and Issues in India's Federal Finance*. New Delhi: National Institute of Public Finance and Policy.
14. Mundle, S. (1999). *Public Finance Policy: Issues for India*. New Delhi: Oxford University Press.
15. Shrivastava, D.K. (ed.) (2000). *Fiscal Federalism in India*. New Delhi: Har-Anand Publications Ltd.

E- Learning Material

1. <http://indiabudget.nic.in>
2. <http://policies.gov.in>
3. <http://finmin.nic.in/revenuesummary/login.asp>;
4. <https://dea.gov.in>

MATH 408 Mathematics for Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Solve problems related to equilibrium of national income, market equilibrium and input output modeling by applying the concepts of matrices and determinants.
- Demonstrate consumer and producer's equilibrium employing linear programming technique.
- Demonstrate optimum strategies of economic agents using Game Theory Approach.
- Solve optimization problems of consumers and firms using differential calculus

Section - A

Determinants and their basic properties; Solution of simultaneous equations by Cramer's rule; Concept and types of matrices; Addition, subtraction and multiplication of matrices; Inverse of a matrix and solution of simultaneous equations; Static input-output analysis- Open and closed models.

Section - B

Linear programming (LP): concept and formulation of LP problems, Solutions of LPP by Graphical and Simplex Methods. Straight line, Parabola and Hyperbola as used in economics; Game theory -Concept of a game; Strategies – Simple and Mixed; Value of a game; Saddle point solution.

Section - C

Differentiation of a function; Maxima and Minima - in Single and Multivariate functions- unconstrained and constrained, Partial differentiation. Applications of differential and integral calculus in Economics.

Recommended Books:

1. Chiang A. C. (1984). *Fundamental Methods of Mathematical Economics*. New York: McGraw hill.

2. Taro, Y. (1988). *Mathematics for Economists*. New Delhi: Prentice Hall of India.
3. Klein M.W. (2017). *Mathematical Methods for Economics*. 2nd edition, Addison-Wesley.
4. Dowling, E. (2001). *Introduction to Mathematical Economics*. McGraw Hill.

E- Learning Material

1. <http://link.springer.com/openurl?genre=book&isbn=978-94-6239-087-4>
2. <https://www.economicsnetwork.ac.uk>

SSC 402 Social Science Perspective

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Analyse the holistic view encompassing different social science disciplines.
- Provide insights to interpret social events.
- Understand the basic ingredients of social science disciplines to contextualize social reality.
- Critically evaluate the emerging themes in social sciences.

Section I – The Evolution of Social Science:

Philosophy of Knowledge and the study of society in Pre-Modern Era. Enlightenment, Modernism and the Idea of Social Sciences.

Nomothetic and Ideographic Dichotomy: The Natural and Social Science divide. The Interdisciplinary Relations.

Section II – Perspectives to Social Phenomena:

Historical; Normative; Classical Economy; Marxist and the Critique of Political Economy; Phenomenology. Psycho-analytical Interpretation. The 'Orient' and 'Occident' Perspective: Lucknow School, Lohian Approach, Amartya Sen (Welfare Economics and Social Justice); Peter Winch, Thomas Kuhn.

Section III – Emerging Themes:

Cliometrics and the Quantitative analysis of the Social Change. Science, Technology and Ecology. Post-Modernism. Developing ideas on 'Self': Self Concept, Self Esteem and Social Identity.

Recommended Books:

1. Martin, A. (1996). *The Global Age: State and Society beyond Modernity*. Cambridge: Polity Press.
2. Almond, G. A., & Powell, G. B. (1966). *Comparative Politics - A Developmental Approach*. Boston: Little Brown and Co.
3. Atal, Yogesh. (2003). *Social Science: The Indian Scene*. New Delhi: Abhinav Pub.
4. Bunge, Mario. (1999). *Social Science under Debate: A Philosophical Perspective*. Toronto: University of Toronto Press.
5. Collingwood, R. G. (1946). *The Idea of History*. New York: Oxford University Press.
6. Dube, S. C. (1976). *Social Sciences and Social Realities*. Shimla: IAS.
7. Easton, David. (1965). *A System Analysis of Political Life*. John Wiley and Sons, Inc.
8. Flyvbjerg, Bent. (2003). *Making Social Science Matter: Why Social Inquiry Fails and How it Can Succeed Again*. Cambridge: Cambridge University Press.
9. Gupta, S. K. (2004). *Emerging Social Science Concerns*. Concept Pub.
10. Harrington, Austin, Hermeneutic. (2005). *Dialogue and Social Science: A Critique of Gadamer and Habermas*. London and New York: Routledge.
11. Hutcheon, L. (1989). *The Politics of Postmodernism*. London and New York: Routledge.
12. Joshi, P. C. (1995). *Social Science and Development: Quest for Relevance*. New Delhi: Har-Anand.
13. Kuhn T. S. (2012). *Structure of Scientific Revolution*. University of Chicago Press.
14. Mckenzie, N. (1966). *A Guide to Social Sciences*. Weidenfeld&Nicolson: London.
15. Mehta, V. R. (1996). *Foundations of Indian Political Thought*. Manohar Publications.

16. Sen, A. (2008). *The Idea of Justice*. Harvard University Press.
17. Winch, P. (2008). *The Idea of Social Sciences*. London and New York: Routledge.

E- Learning Material

1. Frank H. Knight, Ethics, An International Journal of Social, Political and Legal Philosophy, Ethics, Vol.51, No.2, 1941, pp.127-143, in 'Social Science'.
<https://www.jstor.org/stable/pdf/2989060.pdf?refreqid=search%3A2097f7ebd5635fc5efcccf0e7376bb54>
2. C. P. Bhambhri, 'Globalisation and Social Science', in Economic and Political Weekly, Vol.33, No.1/2, 1998, pp.17-19<https://www.jstor.org/stable/pdf/4406259.pdf?refreqid=search%3A2097f7ebd5635fc5efcccf0e7376bb54>
3. Edwin R.A Seligman and Alvin Johnson, 'Encyclopaedia Of The Social Sciences', Vol.8, Industrial Revolution- Labour Turnover

Second Semester

ECO 402 Macro Economic Theory - II

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Analyse the Samuelson, Hicks and Kaldor models of business cycles.
- Describe the investment behaviour through various theories of investment.
- Evaluate the tradeoff between inflation and unemployment and analyse the relation under adaptive expectations and rational expectations
- Examine the validity and applicability of the classical and Keynesian model of income and employment in recent years.
- Analyse the New Classical Model and New Keynesian Model.
- Describe the money market equilibrium and analyse the simultaneous equilibrium in money market and product market through IS-LM Model.
- Analyse the relative effectiveness of monetary policies and fiscal policies

Section –A

Investment demand: Stock market and Tobin's q-ratio, Accelerator theory of investment (simple and flexible acceleration models); Theories of business cycle: Samuelson, Hicks and Kaldor models.

Phillips curve: Tradeoff between inflation and unemployment, Keynesian explanation of Phillips curve; Natural unemployment hypothesis and Adaptive expectation (Friedman's view); Long-Run Phillips curve– Rational expectations; Relationship between short run and long run Phillips curve.

Section-B

The new classical model (Lucas view); The new Keynesian model; Real business cycle school : Real business and inter temporal substitution of labor- Real business cycle theory- technology shocks- neutrality of money and flexibility of wages and prices- Real business cycle view on great depression.

Section-C

Equilibrium in money market: The Keynesian model, Liquidity trap; Simultaneous equilibrium in money and product market- IS-LM model; Relative effectiveness of monetary and fiscal policies; Fiscal policy and crowding-out; Lags in the effect of macroeconomic policy, Rules versus Discretion.

Recommended Books:

1. Branson, W.H. (2005). *Macro Economic Theory and Policy*, Harper and Row, New York.
2. Dernberg. T. (1980). *Macro Economics*, McGraw Hill, Koga Kusha, Tokyo.
3. Dornbusch, R and S. Fischer. (1978). *Macro Economics*, McGraw Hill. Koga Kusha, Tokyo.
4. Edgmand, M.R. (1987). *Macro Economics – Theory and Policy*. Prentice – Hall of India, New Delhi.
5. Shapiro, E. (2015). *Macro Economic Analysis*, 5thed, Galgotia Publications (p) Ltd., New Delhi.
6. Jha, R. (2008). *Contemporary Macro Economic Theory and Policy*. Willey Eastern Ltd., India.
7. Mishkin, F. S(2008). *The Economics of Money, Banking and Financial market*, Addison, Wisely.
8. Froyen, T. R(2010), *Macroeconomics: Theories and Policies*, Pearson Prentice Hall.

E- Learning Material

- 1 <http://sites.northwestern.edu/neweresources/2009/03/11/american-economic-journal-macroeconomics/>
2. <http://www2.econ.iastate.edu/tesfatsi/sources.htm>
3. <https://www.oecd-ilibrary.org/economics>
4. <https://www.imf.org/external/index.htm>
5. <http://epwrfits.in/index.aspx>
6. <https://www.ft.com/>
7. <http://www.delnet.in/>
8. <https://www.elgaronline.com/browse?access=user&level=parent>

ECO 404 Micro Economic Theory - II

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Calculate equilibrium price and output of firms under monopolistic competition and oligopoly.
- Appraise various market structures in terms of their welfare implications.
- Discuss determination of factor prices.
- Analyse role of labour unions in determination of wages.
- Analyse efficiency of market outcomes under asymmetric information.
- Discuss the models of general equilibrium.
- Analyse the problems related to general equilibrium.
- Appraise various criteria for economic welfare.

Section-A

Market structure: Monopolistic competition: assumptions, product differentiation and the demand curve, The concepts of industry and group, Short run and long run equilibrium of a firm; Oligopoly: Non-collusive oligopoly: The Duopoly models of Cournot, Bertrand and Stackelberg, Chamberlin's oligopoly model; The kinked demand curve model; Collusive oligopoly: Theory of cartels and price leadership models; A 'Representative' model of average – Cost pricing.

Section-B

Distribution: The general theory of factor price determination under perfect competition, monopoly and monopsony; Concept of exploitation of labor and role of labor unions in wage determination. Information economics: Types of asymmetric information-Moral hazard, Adverse selection, Signalling; Market for lemons; Principal agent problem; Efficiency of market outcomes under asymmetric information.

Section-C

General Equilibrium: Meaning, Partial versus General equilibrium approach, Walrasian general equilibrium model, Tatonnement, Existence,

Uniqueness and stability of equilibrium, A graphical treatment of the 2-factor, 2-commodity, 2-consumer general equilibrium system (2x2x2 model); Welfare economics: Criteria of social welfare- Value judgments in welfare economics, Basic theorems of new welfare economics- Pareto optimality and necessary conditions to achieve it; Market forms and welfare; Compensation principle: Kaldor-Hicks criterion; The Bergson criterion: Social welfare functions.

Recommended Books:

1. Baumol, W.J. (2015). *Economic Theory and Operations Analysis*. Prentice Hall of India.
2. Da, Costa, G.C., (1980). *Production, Prices and Distribution*. Tata McGraw Hill, New Delhi.
3. Deaton, A.S. and J. Muellbauer. (2012). *Economics and Consumer Behavior*, Cambridge University Press, Cambridge.
4. Dobb, M., & Dobb, M. H. (1975). *Theories of value and distribution since Adam Smith: Ideology and economic theory*. Cambridge University Press.
5. Gould, J. P., & Ferguson, C. E. (1980). *Microeconomic theory* (No. 04; HB172, G6 1980.). RD Irwin.
6. Hirshleifer, J., & Glazer, A. (1992). *Price theory and applications*. Prentice Hall
7. Koutsoyiannis, A. (1975). *Modern microeconomics*. Springer. Macmillan Press, London.
8. Kreps, D. M. (1990). *A course in microeconomic theory* (Vol. 41). Princeton, NJ: Princeton university press.
9. Sen, A. (1976). *Micro Economics: Theory and Applications*. Oxford University Press, New Delhi
10. Varian, H. R. (1992). *Microeconomic Analysis* WW Norton & Co. New York.

E- Learning Material

1. www.aeaweb.org
2. <https://www.economicsnetwork.ac.uk>

ECO 405 Monetary Economics and Modern Banking

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand Basic concepts of Financial Economics spot prices, discount factors, arbitrage, spot rates, forward rates and yield-to-maturity, Price sensitivity, Hedging.
- Understand Security Analysis return and risks, management, diversification, optimal portfolio choice and portfolio weights.
- Apply single index model and multi index models, capital asset pricing model; arbitrage pricing theory.
- Understand Derivatives and options, forward and futures contracts, options, other derivatives.

Section-A

Money: Meaning, functions and significance; Theories of money and price: Traditional quantity theory of money (Fisher's and Cambridge versions), Keynesian theory; Modern quantity theory (Friedman's approach); Demand for money: Classical approach, Keynesian approach and post-Keynesian: Tobin's approach.

Section-B

Supply of money: Components and measures of money supply; The 'H' theory of money supply, Money multiplier- process and determinants; RBI's analysis of money supply; Monetary policy: Functions of central bank, goals, indicators of monetary policy, Measures of credit control; Lags in monetary policy.

Section-C

Meaning and functions of commercial banks; Balance sheet of a bank- liabilities and assets; Process of credit creation- purpose and limitations; Investment policy of commercial banks; Commercial banks and economic development; Commercial banking in India: Structure, nationalization and reforms; Microfinance: Concept and progress in India; Use of ICT in banks.

Recommended Books:

1. Chandler, L.V., *An Introduction to Monetary Economics*, Manchester University Press.
2. Chick, V. (1977). *The Theory of Monetary Policy*, Basil Black Well, Oxford.
3. De Kock, M.H. (1938) *Central Banking*. Staples Press King and Sons, London.
4. Friedman, M. (Ed.). (1956). *Studies in the quantity theory of money* (Vol. 561). University of Chicago Press.
5. Gibson, W.E., and Kaufman, eds. (1996). *Monetary Economics: Readings on current issued*, 2ed, Tata McGraw Hill, New Delhi.
6. Gupta, S. B. (1982). *Monetary Economics (institutions, Theory And Policy)*. S. Chand.& Company Ltd, New Delhi.
7. Harrias, L. (1981). *Monetary Theory*. McGraw Hill, Companies, New York.
8. Luckett, D.G. (1976). *Money and Banking*, McGraw-Hill Kogakusha, Ltd.,
9. McCallum, B.T. (1986). *Monetary Economics: Theory and Policy*, New York: Macmillan Publishing Company.
10. Rakhshit, M. (2011). *Money and Finance in the India*, Oxford University Press, India.
11. Mishkin, F. (2007). *Monetary Policy Strategy*, Prentice Hall of India, New Delhi.
12. Misra V.K. and S.K. Puri. (2012). *Indian Economy* (Chapters on Banking and Currency System), Himalaya Publishing House, New Delhi.
13. Mitra, S., ed. (1970). *Money and Banking*, Random house New York.
14. Reserve Bank of India. (1977). *Money Supply: Concepts, Compilation and analysis*, RBI Bulletin, January.
15. Sayers, R. S. (1936). *Modern banking*. Oxford University Press, London.
16. Sethi, T.T. (1999). *Monetary Economics*, S. Chand and Co., New Delhi.

E - Learning Material :

1. www.rbi.org.in
2. www.cpolicy.rbi.org.in
3. www.bulletin.rbi.org.in
4. www.bankreport.rbi.org.in
5. <http://mospi.nic.in>
6. <http://www.indiastat.com>

STAT 404 Statistical Methods for Economics**Max. Marks : 100****(CA: 40 + ESA: 60)**

L	T	P	C
5	0	0	5

Learning Outcome:**After completion of the course, the student will be able to:**

- Describe census and sample methods of data collection.
- Analyze relationship between economic variables using correlation and regression.
- Discuss various concepts related to theory of probability.
- Discuss various concepts related to hypothesis testing and their application in economic research.

Section-A

Sample v/s census methods; Types of sampling; Correlation – simple, partial and multiple; Association of attributes (case of two attributes only); Simple and multiple linear regressions; Coefficient of determination.

Section-B

Deterministic and non-deterministic experiments, Experiment and types of events, Classical and empirical definitions of probability, Laws of addition and multiplication, Conditional probability and concept of interdependence, Baye's theorem and its applications; Concept of random variable, Mean and variance of a random variable; Mathematical expectation; Binomial, Poisson and Normal probability distributions.

Section-C

Concept of parameter and statistic; Concept of an estimator and its sampling distribution, Desirable properties of an estimator; Basic concepts in hypothesis testing - null and alternative hypothesis, Confidence interval, Level of significance, Critical region, One and two tail test, Type I and Type II errors, Hypothesis testing based on Z, T, F(including one way and two way ANOVA) and Chi square tests.

Recommended Books:

1. Gupta, S.C., (2018) *Fundamentals of Applied Statistics*, S. Chand and Sons, New Delhi.
2. Gupta, S.P., (2011) *Statistical Methods*, S. Chand and Sons, New Delhi.
3. Speigal, M.R., (2003) *Theory and Problems of Statistics*, McGraw Hill Book Co., London.
4. Nagar, A.L. and Das, R.K. (1993). *Basic Statistics*, oxford University Press, New Delhi.
5. Chou,Y., (1975) *Statistical Analysis with Business and Economics Applications*, Reinhart and Winston, New York.

E- Learning Material :

- 1 http://letrunghieutvu.yolasite.com/resources/w-lawrence-neuman-social-research-methods_-qualitative-and-quantitative-approaches-pearson-education-limited-2013.pdf
- 2 http://cache3.pdfdrive.com/dl.php?id=10442087&h=e90bd7771_c3cf9674c6672e678aea224&u=cache

SSC 401 Research Techniques in Social Sciences

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Develop aptitude for social science research.
- Identify various sources of primary and secondary data.
- Formulate hypothesis.
- Identify and apply various quantitative and qualitative methods of research.
- Summarize, analyze and interpret qualitative and quantitative data in social science research.
- Write a coherent report and research paper.

Section- A

Formulation of Research Problem. Research Design. Formation and types of hypothesis. Sampling.

Section- B

Source of Primary and Secondary data including library and e-resources. Techniques of Quantitative & Qualitative Data Collection: interview, Schedule, Questionnaire, Observation & Oral history. Case Study & Content Analysis.

Section- C

Classification & Tabulation. Graphic Presentation- Histogram, Bar & Pie diagram. Analysis of Quantitative data: Measures of Central tendency (Mean, Median, Mode), Standard deviation, correlation coefficient. An Overview of Hypothesis Testing (A detailed discussion of t, F, Z, χ^2 tests and their applications are not required). Analysis of Qualitative data: Successive Approximation and The Illustrative Method. Report writing and the writing of research papers.

Recommended Books:

1. Sellitz, et al. (2003). *Research Methods in Social Relations*. New York.

2. Goode, W. J. & Hatt, P. K. (1987). *Methods of Social Research*. New York: Free Press.
3. Babbie, E. R. (2005). *Survey Research Methods*. Belmont California: Wadsworth Publishing Company.
4. Shah, V. P. (2001). *Reporting Research*. Ahmedabad: Rachana Prakashan.
5. Sijoberg, G. & Nett, R. (2002). *A Methodology for Social Research*. Jaipur: Rawat Publication.
6. Kothari, C. R. (2008). *Research Methodology- Methods and Technique*. New Delhi: Wiley and Eastern Limited.
7. Rosenberg, K. (1990). *Statistics for Behavioural Sciences*. W. C. Brown Publishers.
8. Black, T. (2001). *Understanding Social Sciences Research*. New Delhi: Sage Publication.
9. Mariampolski, H. (2001). *Quantitative Market Research- A comprehensive Guide*. New Delhi: Sage Publication.

E- Learning Material

1. Social Research Methods: Qualitative and Quantitative Approaches. Retrieved from http://letrunghieutvu.yolasite.com/resources/w-lawrence-neuman-social-research-methods_-qualitative-and-quantitative-approaches-pearson-education-limited-2013.pdf
2. Fundamental of Research Methodology and Statistics. Retrieved from <http://cache3.pdfdrive.com/dl.php?id=10442087&h=e90bd7771c3cf9674c6672e678aea224&u=cache>
Research Methodology a step-by-step guide for beginners.

Third Semester

ECO 502 Economics of Growth and Development

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Define basic analytical concepts required for study of Economics of Growth and Development
- Explain the role of major factors which affect the processes of Economic Growth and Development.
- Explain and distinguish between the working mechanisms of different types of theoretical approaches and Economic models of Economic Growth and development.
- Appreciate intuitive aspects of development.

Section -A

Economic growth and development; Measuring Development: Income Measures, Basic Needs approach, PQLI, HDI and Capability approach. Factors affecting economic growth- capital, labor and technical Progress.

Section- B

Theories of development: Classical, Big Push, Lewis, Dualism, Harris-Todaro, New (endogenous) growth theory and Macro determinants of growth; Models of economic growth: Harrod and Domar, Neoclassical growth models: Solow, Growth models of Joan Robinson, Kaldor and Pasinetti.

Section- C

Social and intuitional aspects of development: Poverty-concept and measurement, Disguised unemployment- types and measurement, incentives and cost for labour transfer, Inequality: inequality in Income distribution- Kuznets inverted U hypothesis, Lorenz curve and Gini-coefficient, Justice: Sen's concept and approach to justice.

Recommended Books:

1. Gillis, M., Perkins, D. H., Roemer, M., & Snodgrass, D. R. (1992). *Economics of Development* (Ed. 3). WW Norton & Company, Inc.
2. Kindleberger, C.P. (1977). *Economic Development*, (3rd Edition), McGraw Hill. New York.
3. Meier, G. M., & Rauch, J. E. (1995). *Leading Issues in Economic Development* (Vol. 6). New York: Oxford University Press.
4. Todaro, M.P. and S.C. Smith. (2015). *Economic Development* (12th Edition). Pearson Education, Delhi.
5. Thirwal, A.P. (1996). *Growth and Development*. (6th Edition). Macmillan, U.K.
6. Ray, D. (2008). *Development Economics*. Palgrave Macmillan UK.

E- Learning Material

1. <https://www.edx.org/professional-certificate/iimb-risk-management-in-banking-and-financial-markets>
2. <https://www.moneycontrol.com/>
3. <https://www.investopedia.com/>
4. <https://oyc.yale.edu/courses>
5. <https://www.core-econ.org/>

ECO 516 Financial Economics**Max. Marks : 100****(CA: 40 + ESA: 60)**

L	T	P	C
5	0	0	5

Learning Outcome:**After completion of the course, the student will be able to:**

- Understand functions and significance of money.
- Analyse the role of monetary forces and their interaction with the rest of economy.
- Explain the nature, significance and theories of demand and supply of money.

- Understand the role and working of RBI and critically analyse its monetary policy.
- Explain the nature, importance, functioning process of credit creation of commercial banks.
- Understand role of commercial banks in the process of growth and development.
- Explain the concept and progress of microfinance in India.

Section-A

Meaning of financial economics; Structure of financial systems; Capital Market: consumption and investments with and without capital markets, market places and transaction costs and the breakdown of separation; Fisher's separation theorem; the agency problem. Portfolio: return and risks, management, diversification, optimal portfolio choice and portfolio weights.

Section-B

Security Analysis-Meaning and types of risk; returns: concepts and types, Models of asset returns, single index model and multi index models, systematic and specific risk, capital asset pricing model; Roll's critique; arbitrage pricing theory, Efficient Market Hypothesis: test of the EMH – Empirical evidence on efficiency in the stock market ; risk-return tradeoff, measures of investment risk-variance of return, semi-variance of return.

Section-C

Bond prices and yields, interest rate sensitivity and duration; immunization; the term structure of interest rates; yield curves; spot prices, discount factors, arbitrage, spot rates, forward rates and yield-to-maturity, Price sensitivity, Hedging; Introduction to derivatives and options; forward and futures contracts; options; other derivatives; pricing futures and synthetic futures; bounds for option prices, put-call parity.

Recommended Books:

1. Avadhani, V.A.(2014).*Financial Economics*. Theory and Practice. Himalayan Publication.Bombay,2014.
2. Bailey, E. (2005). *The Economics of Financial Markets*. Cambridge University Press.
3. Bhole, L.M.(2009).*Financial Institutions and Markets*.Tata McGraw-Hill Publishing Company Ltd.New Delhi,2009.

4. Chandra, P. (2011). *Financial management*. Tata McGraw-Hill Education.
5. Dubofsky, D. A., & Miller, T. W. (2003). *Derivatives: valuation and risk management*. Oxford University Press, USA.
6. Erickson, H. K. (2013). *Financial Economics: A Simple Introduction*. K. H. Erickson.
7. Gupta, S. B. (1982). *Monetary Economics (institutions, Theory And Policy)*. S. Chand.
8. Hampton, J. J. (1976). *Financial Decision Making: Concepts, Problems, & Cases*. Reston.
9. Houthakker, H. S., Houthakker, H. S., Williamson, P. J., & Williamson, P. J. (1996). *The economics of financial markets*. Oxford University Press on Demand.
10. Khan, M. Y. *Financial Management*. Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2016.
11. LeRoy, S. F., & Werner, J. (2014). *Principles of financial economics*. Cambridge University Press.
12. Mishkin, F. S., & Eakins, S. G. (2006). *Financial markets and institutions*. Pearson Education India.

E- Learning Material

1. <https://www.edx.org/professional-certificate/iimbx-risk-management-in-banking-and-financial-markets>
2. <https://www.investopedia.com/>
3. <https://oyc.yhhttps://www.moneycontrol.com/>
4. htale.edu/courses
5. <https://www.core-econ.org/>

ECO 507 International Trade and Commercial Policy

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Discuss various theories of international trade.
- Appraise and compare the theories of international trade.
- Identify the direction, composition of trade and gains from trade.
- Discuss the partial and general equilibrium effects of tariffs and quota.
- Calculate the economic effects of tariffs and quota.
- Appraise and compare the welfare effects of Tariff and Non Tariff Barriers to Trade.
- Discuss the various forms and effects of economic integration.
- Appraise the welfare effects of economic integration.

Section -A

Theories of International Trade – Absolute and Comparative advantage theory; Heberler's Opportunity Cost Theory; Mill's Reciprocal Demand Theory; Heckscher Ohlin Theorem – Factor Abundance in terms of price and physical; criteria Factor Intensity Factor Price Equalization Theorems. Leontief Paradox. Recent explanations of the basis of trade in terms of technological lead, domestic market size: Product Cycle approach, Linder's Hypothesis

Section- B

Intra-industry trade; Effects of trade under monopolistic competition. Neo-Chamberlinian models (Krugman model), Oligopolistic models (Brander-Krugman model); Trade and growth – export led or outward looking industrialization; Effects of growth on trade- Production and Consumption effects: Increase in Factor Endowment-The Rybczynski Theorem: Growth and terms of trade – Concept of immiserising growth.

Section- C

Partial and General equilibrium analysis of tariff and quota; The optimum tariff; Effective rate of protection; Non-tariff barriers and the new protectionism; The theory of economic integration – Trade creation and Trade diversion effects.

Recommended Books:

1. Kindleberger C.P. (1958) International Economics, Revised Edition. R.D. Irwin. Homewood.

2. Sodersten. Bo. (1994). International Economics, Macmillan, London.
3. Salvatore, D. (2001). International Economics, John Wiley & Sons. Inc., New York.
4. Mannur, H.G. 2e. International Economics, Vikas Publishing House.

E- Learning Material

1. American Economic Association: www.aeaweb.org
2. www.economist.com
3. <https://www.oswego.edu/economics/resources>

CS 513 Computer Applications

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
3	0	0	3

Learning Outcome:

After completion of the course, the student will be able to:

- Basic knowledge of the computer system and its peripherals.
- Concept of operating system and their functions
- Understand databases and Network applications.
- Understand concept of Application software tools like MS- WORD, MS-EXCEL, MS-PowerPoint and SPSS.

Section- A

Introduction: What is Computer, Applications of computer, Elements of computer: Hardware & Software, Block Diagram of Computer System Functions of the computer components, Concept of Data and Information, Evolution and Classification of Computer Software: What is Software and Types of Software Operating System: Introduction and function of Operating System Programming languages: Generation of languages, Language Translators: Assembler, Compiler and Interpreter Database Management Systems: Concepts & Applications

Section- B

PC Software: Word Processing: Creating, opening and Saving Documents, Formatting, Inserting Tables and Pictures and Mail Merge Spreadsheets Package: Creating, Opening & Saving Worksheets, Use of Formulas & Functions, Charts: types, creation, editing. Sorting and Filtering of Data, What-if analysis: Scenarios & pivot table, Goal Seek. Presentation Packages: Introduction to Presentation Packages, Inserting Slides, Templates, Slide views, Graphics and Animation Introduction to Computer

Network: What is Network, Advantages, types of Network: LAN, WAN, MAN Internet: Applications, Web browsers, Servers, Internet Services- WWW, E-mail, URL, Search Engines, Concept of Blogging

Section- C

Analysis through Statistical Packages (SPSS): Types of Variables, Classification and Tabulation of Data, Graphical presentation of Data: Histogram, Bar, and Pie Diagram. Import/Export of Data, Measures of Central tendency: Mean, Mode, and Median. Measure of Dispersion: Standard Deviation. Correlation analysis, Chi-Square Test.

Recommended Books:

1. Sinha, P. K. (2004). *Computer Fundamentals: Concept, Systems and Applications*. BPB Publications.
2. Goel, A. *Computer Fundamentals*. Pearson Education
3. Jaiswal, S., (1996) *P.C. Software Bible*. Galgotia, New Delhi.
4. Garg, P., Gupta, S. (2013). *Computer Fundamentals & Office Automation*. Shubham Publications.
5. Govil, M.C. *Computer Fundamentals and Programming in C*. Jaipur Publication House.
6. Forouzan, A. B. *Data Communications & Networking* (4th ed.). Tata McGraw-Hill.

E- Learning Material

- <https://nptel.ac.in/courses/106105082/>

CS 513L Computer Applications Lab

Max. Marks : 100
(CA: 40 + ESA: 60)
L T P C
0 0 4 2

Learning Outcome:

After completion of the course, the student will be able to:

S.No.	Practical
1.	Introduction to SPSS
2.	Introduction to Different Table
3.	How we represent data in SPSS (Data View and Variable View)
4.	How we import and export the file in SPSS
5.	Creation of Histogram, Bar and Pie diagram
6.	Import the file in SPSS and Perform following operation
	(i) Frequency Analysis for each variable and draw Histogram.
	(ii) Descriptive Analysis for each variable
7.	Perform frequency analysis Generate Pie chart showing age in X axis, Gender in Y axis Slice by name, age, gender.
8.	Perform the Mean Mode and Median operation using SPSS on given data set.
9.	Perform frequency analysis Generate Bar chart between age and education. Define, id, Name, Age, Gender, Educational Qualification, Educational course
10.	Find out the standard deviation using SPSS on given data set.
11.	Perform correlation analysis
12.	Perform nonparametric chi Square test.

Recommended Books:

- R1. Sinha, P. K. (2004). *Computer Fundamentals: Concept, Systems and Applications*.
- R2. Goel, A. *Computer Fundamentals*. Pearson Education
- R3. Govil, M.C. *Computer Fundamentals and Programming in C*. Jaipur Publication House.
- R4. Forouzan, A. B. *Data Communications & Networking* (4th ed.). Tata McGraw-Hill.

Semester-IV

ECO 501 Economics of Environment

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Explain the meaning and scope of Environmental Economics.
- Conceptualize and explain ideas like externality and market failure
- Undertake Environmental Valuation using different techniques
- Explain the idea of Sustainable development
- Understand various practical environmental issues at national and global level
- Understand the role of global and national governments and organizations in resolving environmental issues.

Section- A

Meaning, importance and scope of environmental economics; The evolution and growth of environmental economics; Linkages between environment and economics; The concept of externalities, Environment as a public good and market failure; Environmental Kuznets's curve; Environmental valuation: Meaning and types of environmental valuation, Market valuation, Contingent Valuation Method (CVM), Hedonic pricing technique; Environmental accounting.

Section- B

Sustainable development: Concept, indicators, measurement and Strategies for sustainable development; Economics of natural resources: A resource taxonomy; Managing exhaustible and renewable resources; Methods of abatement of externalities: The Pigouvian tax – Subsidy approach; Cost-Benefits analysis to environmental analysis.

Section- C

Global environmental issues: Negative international externalities and their implications; Major environmental organization and events: Green peace movement, The World conservation union, the nature conservancy. Sierra

club, UNEP, UNCED. The Vision, goals, objectives and instruments of environmental policy; A critique of India's environmental policy.

Recommended Books:

1. Bhattacharya, R.N. (ed.). (2001). *Environmental Economics: An Indian Perspective*, Oxford University Press, and New Delhi.
2. Bromely, D. W. (1995). *Handbook of Environmental Economics*. Blackwell.
3. Ch. Hanumantha Rao. (1994). *Agricultural Growth, Rural Poverty and Environmental Degradation in India*, Oxford University Press, New Delhi.
4. Dasgupta, P and Heal, G. M. (1979). *Economic Theory and Exhaustible Resources*, Cambridge University Press.
5. Dixon, J. (1994). *Economic Analysis of Environmental Impacts*, Earthscan Publications, London.
6. Field, B. C., (1994). *Environmental Economics: An Introduction*. McGraw Hill, New York.
7. Government of India. (1992). *Policy Statement for Abatement of Pollution, Ministry of Environment and Forests*. New Delhi.
8. Hanley, N, J. F. Shogren and B. White. (1997). *Environmental Economics in Theory and Practice*, MacMillan, New York.
9. Hardin, G. "The Tragedy of Commons", in Markandya, A. and Richardson, J. (eds.). (1993). *Earthscan Reader in Environmental Economics*. Earthscan Publications, London.
10. Jempa, C. and Munasinghe, M. (1998). *Climate Change Policy: Facts, Issues and Analyses*, Cambridge University Press.
11. Karpagam M. (1992). *Environmental Economics: A Text Book*. Sterling Publishers Pvt. Ltd. Green Park Ext. New Delhi.
12. Kolstad, Charles (2000). *Environmental Economics*, Oxford University Press.
13. Mehta, S., Mundle, S., and Sankar, U. (1997). *Incentives and Regulation for Pollution Control*. Sage Publication, New Delhi.
14. Murty, M. N., A. James and S. Misra. (1999). *The Economics of Water Pollution in India*, Oxford University Press, New Delhi.
15. Oates, W. E. (1992). *Economics of the Environment*, Edward Elgar, Cheltenham, U.K.

16. Opschoor, J. B. and Vos, H. B. (1989). *Economic Instruments for Environmental Protection*. OECD and OCDE.
17. Sankar, U., Mythili, G. and Anuradha, R. (1996). *Environmental Problems in India's Energy Sector and Policies for Corrective Action* (Project Report), Madras School of Economics, Chennai.
18. Sankar, U. (ed.). (2000). *Environmental Economics*, Oxford University Press.
19. United Nations ESCAP. (1997). *Accounting and Valuation of Environment, Vol. I and II: A Primer for Developing Countries*, New York.
20. World Bank. (1992) *Development and the Environment: World Development Report Series*, Washington, D. C.

E - Learning Material :

1. <https://www.nature.com/subjects/environmental-economics>
2. <https://www.cseindia.org/>
3. <https://www.niti.gov.in/>
4. <https://www.indiabudget.gov.in/index.as>
5. <https://www.epw.in/>

ECO 505 Indian Economic Development

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Explain different development strategies in pre and post liberalization era.
- Analyse contribution of different sectors to output and employment.
- Analyse problem like “jobless growth”.
- Examine policy initiatives for sustainable agriculture.
- Analyse opportunities and problems with service sector led growth

Section –A

Development strategy and economic growth in India in pre and post reforms era; Emerging structure of Indian economy – Contribution of different sectors to output, employment and income; Economic reforms; Inclusive growth; Recent policy initiatives under latest five year plans.

Section- B

Review of agricultural performance since independence, Land reforms, Green revolution and Agricultural research, Policy initiatives for sustainable agriculture; WTO agreement and its impact on agriculture; Socio-economic developmental issues: Poverty- measurement extent of reduction in poverty since independence; Unemployment-nature and trends; Recent policy initiatives for these issues.

Section- C

Industrial, services and infrastructure sector: Review of India's industrial growth since economic reforms, Policy initiatives for industrial growth; Growth of services industry; State of infrastructure, Promoting investment in infrastructure development, public-private partnership.

Recommended Books:

1. Kapila, U. (Ed.). (2009). *Indian Economy since independence*. Academic Foundation.
2. Jalan, B. (1997). *India's economic policy: preparing for the twenty-first century*. Penguin Books India.
3. Rangarajan, C., and Kannan, R. (2004). *Select essays on Indian economy (Vol. 1)*. Academic Foundation.
4. Misra, S. K. and Puri, V.K. (2018). *Indian Economy*. New Delhi: Himalaya publishing House.
5. Ruddar, D. & Sundharam, K. P. M. (1990). *Indian Economy*. S. Chand Limited.
6. Dhingra, C. Ishwar (2007). *The Indian Economy Environment and Policy*. Finance India, 21(3), 1073.

E- Learning Material

1. <http://mofapp.nic.in:8080/economicsurvey/>
2. http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v2/11th_vol2.pdf

3. http://www.undp.org/content/dam/india/docs/how_inclusive_is_the_eleventh_five_year_plan_a_sectoral_review.pdf
4. http://www.igidr.ac.in/newspdf/17%20Chap_R.%20Nagaraj_IDR-2011.pdf<http://agricoop.nic.in/sites/default/files/National%20Mission%20For%20Sustainable%20Agriculture-DRAFT-Sept-2010.pdf>

ECO 506 International Money and Finance

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Describe the structure of the Balance of Payment of a country.
- Identify the presence and nature of disequilibrium in Balance of Payment of a country.
- Discuss the various mechanisms of adjustment in Balance of Payment of a country.
- Appraise and compare the various mechanisms of adjustment in Balance of Payment of a country.
- Discuss various approaches to determination of exchange rates.
- Appraise and compare various approaches to determination of exchange rates.
- Explain the trends in the movement of Indian Rupee against major currencies of the world.
- Appraise the welfare effects of international capital movements.
- Identify the causes of debt and financial crises

Section- A

Balance of payment: Meaning and structure; Disequilibrium in balance of payments: Meaning and Causes; Measures to correct BOP disequilibrium: Price adjustment mechanism under fixed and flexible exchange rate; Income adjustment mechanism and Synthesis of automatic adjustments; Fiscal and Monetary policies in BoP adjustment (under both fixed and flexible exchange rates).

Section- B

Theories of exchange rate determination: PPP theory, Monetary model of BOP under fixed and floating exchange rate – Portfolio balance model; Indian Rupee and its fluctuations in international currency markets; Essentials of international monetary order under Bretton Woods – Problem of international liquidity–Changing role of IMF – IMF conditionalities – World Bank and structural adjustment loan facility.

Section- C

International financial movements: Portfolio and direct investments and their impact on the economy. External debt – measuring the debt burden – Debt servicing – Third World debt problem; Debt and financial crisis; Important international financial crisis: East asian crisis, Brazil, Argentina and Mexico, The sub-prime crisis.

Recommended Books:

1. Kindleberger C.P. (1958) International Economics, Revised Edition. R.D. Irwin. Homewood.
2. Salvatore, D. (2001). International Economics, John Willey & Sons. Inc., New York.
3. Mannur, H.G. 2e. International Economics, Vikas Publishing House.
4. Sodersten. Bo. (1994). International Economics, Macmillan, London.
5. Carbough, R.J., International Economics, Thomson South-Western.

E- Learning Material :

1. <https://hbsp.harvard.edu/economics>
2. www.aeaweb.org
3. www.economist.com

SSC 501 Women Studies

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Explain the fundamentals of Women Studies and its multidimensional aspects.
- Develop the knowledge of how women's struggles or movements in the West and in India evolved leading to the establishment of the academic discipline.
- Describe interlinkages of gender, patriarchy and power.

Section A

Women's Studies as a discipline. Emerging Concepts- Gender, Women Empowerment, Gender Sensitization, Gender Bias & Gender Discrimination. First, Second and Third Waves of Feminism. Feminist Thought and Theories Liberal : Marxist and Radical Feminism. Developmental Approaches : Women in Development (WID) Women and Development (WAD) Gender and Development (GAD)

Section B

Women in India : Status of Women in terms of Socio-Cultural Milieu : family structure, Caste, Class and Community. Demographic Profile, Social Profile (Education, Health, Violence Related to Women). Economic Profile (Women and Work). Political Profile of Indian Women Development Index : Human Development Index (HDI), Gender Development Index (GDI) and Gender Empowerment Measure (GEM) Strategies for Women's Development in India (From Welfare to Empowerment) Role of NGOS in Women's Development in India.

Section C

International Declarations For Protection of Women : Universal Declaration of Human Rights (UDHR), Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Institutional Mechanism for Women : National Commission For Women, State Commissions, National Human Rights Commission (Organizational Setup and Functions) Significance and Importance of Legal Provisions for Sageguarding the Rights of Women Case Studies : Grassroot Employee :

Bhanwari Devi Women in Sport : Mary Kom, Social Activist : Sunitha Krishnan Women in Administration : Kiran Bedi.

Recommended Books:

1. Altekar, A.S. (1983). *The Position of Women in Hindu Civilization*. Delhi. Motilal Banarsidas.
2. Chanana, Karuna. (1988). *Socialization, Women and Education: Exploration in Gender Identity*. New Delhi. Orient Longman.
3. Chodrow, Nancy. (1978). *The Reproduction of Mothering*. Berkeley: University of California Press.
4. Desai, Neera & M. Krishnraj. (1987). *Women and Society in India*. Delhi: Ajanta Press.
5. Dube, L. (1986). *Visibility and Power: Essays on Women in Society and Development*. New Delhi: OUP.
6. Dube, L. (1997). *Women and Kinship: Comparative Perspectives on Gender in South and South-East Asia*. Tokyo: United Nations University Press.
7. Gandhi, N., & Shah, N. (1992). *The Issue at Stake, Theory and Practice in the Contemporary Women's Movement in India*. New Delhi: Kali for Women.
8. Ghadially, R. (1988). *Women in Indian Society*. New Delhi: Sage Publication.
9. Maccoby, E. & Jacklin, J. (1975). *The Psychology of Sex Differences*. Stanford: Stanford University Press.
10. McCormack, C., & Strathern, M. (ed.) (1980). *Nature, Culture and Gender*. Cambridge. Cambridge University Press.
11. Oakley, A. (1972). *Sex, Gender and Society*. New York: Harper and Row.
12. Jain, D., & Rajput, P. (2003). *Narratives from the Women's Studies Family, Recreating Knowledge (ed.)*. New Delhi: Sage Publication.
13. Tong, R. (1989). *Feminist Thought: a Comprehensive Introduction*. London. Routledge.
14. Desai, N., & Thakkar, U. (2004). *Women in Indian Society*. New Delhi: National Book Trust.
15. Apte, P. (1996). *Bharatiya Samaj Mein Nari*. Jaipur: Classic Publishing House.

E- Learning Material :

1. Why Women Studies, Economic and Political Weekly:
<https://www.epw.in/node/148856/pdf>
2. Introduction to Women, Gender, Sexuality Studies, University of Amherst:
https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1000&context=wost_ed_materials
Gender and Development, Development Bulletin :
<https://crawford.anu.edu.au/rmap/devnet/devnet/db-64.pdf>

Discipline Elective

ECO 509 Agriculture Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand basic concepts of Agriculture Production, Debate of Farm size and productivity.
- Analyse theories of Agriculture Development.
- Examine issues and problems of Agriculture Price Policy in India.
- Understand impact of WTO on Indian Agriculture
- Acquire adequate knowledge to assess the Food Policy of India.
- Understand issues of agriculture marketing.

Section-A

Role of Agriculture in Economic Development; Interdependence between Agriculture and Industry; Structural Problems in Agriculture; Tenancy and Crop Sharing- Land Reforms and Economic Development, Agricultural labour- Interlocking of Factor Markets. Theories of Agricultural Development – Schultz, Mellor, Hayami, Ranis-Fei. Institutions and Agricultural Models-Lenin and Kautsky.

Section-B

Agricultural Production and Productivity; Production Function Analysis in Agriculture. Farm Size and Productivity Debate; Theoretical and Empirical Findings. Green Revolution and its Impact on Production and Distribution, Agricultural Growth and its Regional Dimensions in India. WTO and Indian Agriculture. Food Security and International Trade- Concepts, Threat, Indicators and Mechanism to Food Security.

Section-C

Agricultural Price Policy and issues; Its Rationale, Instruments and Evaluations. Credit in Agriculture: Role and Sources, Cooperative Movement in India- Organisation, Structure and Development of Different Types of Cooperatives in India. Issues related to Investment and Subsidies in Indian Agriculture; Importance of Rural Infrastructures in Agricultural

Development, Agriculture Marketing and e NAM, Food Security and Nutrition Security, Food Policy

1. Acharya, S. S., & Agrawal, N. L. (2009). Agricultural marketing in India "Oxford and IBH Publishing Co. Pvt. Ltd.
2. Bhalla, G. S., & Gurmail, S. (2001). Indian agriculture: four decades of development. Indian agriculture: four decades of development.
3. Bhalla, G. S. (2007). Indian agriculture since independence. Indian agriculture since independence.
4. Bharadwaj, K. (1985). A view on commercialization in Indian agriculture and the development of capitalism. *The Journal of Peasant Studies*, 12(4), 7-25.
5. Black, J. D. (1953). Introduction to economics for agriculture. The Macmillan Company: New York.
6. Chadha, G. K. (2004). Land Resources (Vol. 2). Academic Foundation.
7. Dhawan, B. D. (1988). Irrigation in India's agricultural development: productivity, stability, equity (No. Sage Publications (Pvt) Ltd..
8. Griffin, K. (1979). The political economy of agrarian change: An essay on the Green Revolution. Springer.
9. Gulati, A., & Kelley, T. (1999). Trade liberalization and Indian agriculture: cropping pattern changes and efficiency gains in semi-arid tropics. Oxford University Press.
10. Kahlon, A. S. (1983). Agricultural price policy in India. South Asia Books.
11. Khusro, A. M. (1973). Economics of land reform and farm size in India.
12. Meier, G. M., & Rauch, J. E. (1995). Leading issues in economic development (Vol. 6). New York: OxfordUniversity Press.
13. Rao.C.H. (1975). Technological change and distribution of gains in Indian agriculture.
14. Rao, C. H. (1993). Agricultural growth and rural poverty in India: emerging trends and perspectives. *Indian Economic Review*, 129-140.
15. Planning Commission. (2015). Report of the Working Group on Agricultural Marketing Infrastructure,

16. Secondary Agriculture and Policy Required for Internal and External Trade for the Twelfth Five Year Plan (No. id: 6873).
17. Schultz, T. W. (1964). Transforming traditional agriculture. Transforming traditional agriculture.
18. Verma, N.M.P. (1990), Irrigation Change and Agricultural Development, Uppal, New Delhi.
19. Visarioa, B and R. Basant (1994), Non-Agricultural Employment in India, Trends and Prospects, Sage.
20. Wanmali S. and C. Ramasamy (Eds.) (1995). Developing Rural Infrastructure; Macmillan, New Delhi.

E- Learning Material

1. Agricultural Statistics at a Glance 2010, Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi.
2. State of Indian Agriculture: 2012-13, Ministry of Agriculture, Government of India, New Delhi
3. <https://eands.dacnet.nic.in/>
4. <https://www.coursera.org/learn/agriculture-economics-nature>
5. <http://www.student.uwa.edu.au/faculties/faculty-of-science/Agriculture-and-Envrionment-students/courses/online>
6. http://agriculture.gov.in/Admin_MOAFW/Data/February2018.pdf

ECO 510D Dissertation

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

0 0 10 5

Learning Outcome:

After completion of the course, the student will be able to:

- Develop their analytical thinking
- Enhance their writing skills
- Refine their research aptitude

The students will have to write a dissertation of about 60-75 pages on any topic of their area of research interest under the supervision of a mentor.

Guidelines for writing the Dissertation: Size minimum 60-maximum 75 pages, double line space, in TNR 12 Font size. For Hindi type font to be used DevLys 010, size 14. Sequence of content - Title page, certificate of the supervisor, declaration by the student, content page, list/s of tables, graphs, charts, maps, illustrations, photographs and plates, acknowledgement, preface pages (to be numbered in small Roman digits, i, ii, iii... x). From chapter 1 to last pages Arabic numerals (1, 2, 3...75). If any, the Appendices and list of technical terms/glossary will follow the conclusion chapter and will not be numbered. Reference section/Bibliography will similarly not be numbered. Reference style - APA.

Synopsis: 8-10 pages including the research problem, tentative chapterisation, objectives, methodology, literature review and bibliography, with TNR 12 Font, double space.

Process: The allocation of supervisor for guiding dissertation may preferably be done in MA III Semester itself. The synopsis presentation should be done by December end. Student would also submit hard copy of the same. The mid-term presentation/assessment is to be done by February end. Dissertation submission to be made by March end. Viva date will be added in the date sheet of final Semester examinations. The viva board will comprise of HOD + supervisor + 1 faculty member. Viva will carry 60 marks.

Continuous Assessment: This would comprise of Synopsis presentation/Evaluation (15 marks) and Mid-term Presentation (25 marks) The continuous assessment will also be done by the same board of examiners.

ECO 511 Economics of Discrimination

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Define and understand the concept of Discrimination
- Use economic tools for study of Discrimination
- Understand contours of caste based Discrimination and its economic angles
- Understand the nuances of feminist economics
- Understand the realities of labour market and the existence of gender based discrimination in opportunities of participation and wage disparity
- Utilise robust economic tools for analysis of controversial issues like Affirmative Action

Section A

Meaning of Discrimination, Basis of Discrimination – Religion, Race, Caste, Language, Gender, Ethnicity; Economic reasoning of Discrimination - Theories of Discrimination (Taste for Discrimination and Statistical Discrimination approach).

Section B

Economic analysis of Caste based Discrimination: The Mechanics of Caste - Economic features of the caste system with respect to property rights and occupations; Economic Inequality and Caste, Resource ownership and Caste, Caste based Wage differentials, Caste Mobility, Social Capital; Measuring Discrimination: Caste Development Index, Theil Index; Affirmative Action: Constitutional Provisions in India, Dalit Entrepreneurship.

Section C

Economic Analysis of Gender based Discrimination: Feminist Economics – Idea of Productive and Reproductive Sphere of the Economy; Women Participation in Labour Force in India and factors affecting it; Gender based Wage Disparities, Constitutional Provisions to counter Wage Disparity; The phenomenon of ‘Missing Women’ in India.

Recommended Books:

1. Akerlof, George. (1976) "The Economics of Caste and of the Rat Race and other woeful tales", in *The Quarterly Journal of Economics*, pp. 599-617
2. Arrow, Kenneth (1998) "What Has Economics to Say about Racial Discrimination?" *Journal of Economic Perspectives*, 91-100. <http://www.jstor.org/stable/2646963>
3. Becker, Gary S. (1957) *The Economics of Discrimination*, University of Chicago Press, (and various other editions)
4. Darity, William Jr., Ashwini Deshpande, and Thomas Weisskopf. (January 2011), "Who Is Eligible? Should Affirmative Action be Group or Class-Based?" *American Journal of Economics and Sociology* pp. 238-268.
5. deZwart, Frank, (2000) 'The Logic of Affirmative Action: Caste, Class and Quotas in India' in *Acta Sociologica*, vol. 43 no. 3, pp. 235-249.
6. Deshpande, Ashwini, (2011), *"The Grammar of Caste: Economic Discrimination in Contemporary India"*, Oxford University Press, New Delhi.
7. Deshpande, Ashwini, *"Affirmative Action in India"*, Oxford India Short Introductions Series, Oxford University Press, New Delhi, March 2013.
8. Deshpande, Ashwini, (2007) "Affirmative Action", in Kaushik Basu (editor), *Oxford Companion to Economics in India*, Oxford University Press, New Delhi, 2007, pp. 5-6 2
9. Deshpande, Ashwini, (2007) "Caste" in Kaushik Basu (editor), *Oxford Companion to Economics in India*, Oxford University Press, New Delhi, pp 48-50
10. Deshpande, Ashwini, (2007) "Women in the Labour Force" in Kaushik Basu (editor), *Oxford Companion to Economics in India*, Oxford University Press, New Delhi, pp 557-559
11. Deshpande, Ashwini. (2005) *Affirmative Action in India and the United States*. Washington, DC: World Bank. World Bank. <https://openknowledge.worldbank.org/handle/10986/9038>
12. Jacobsen, J. P. (1998). *The Economics of Gender* (Vol. 631207279). Malden, MA: Blackwell.
13. Sen, Amartya. (2017) "More than 100 million women are missing." *Gender and Rights*, Routledge, pp 81-84

14. Thorat, Sukhdev, (2005) 'Reservation and Efficiency; Myth and Reality' in *Economic and Political Weekly*, vol. 40 no. 9, pp 808-810.

E- Learning Material

- Stanford Encyclopedia of Philosophy - <https://plato.stanford.edu/info.html>
- <https://www.libertyfund.org/>
- <https://www.core-econ.org/>
- <https://www.econlib.org/u=cache>

ECO 512 Economics of Education

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand of planning, financing and cost of education.
- Explain the link between the educational system and economic development.
- Analyze India's educational problems in the context of economic concepts.

Section- A

Economics of Education: Definition, nature, and scope; Educational production function; Education, productivity and income; Education and economic development; Determinants of expenditure on education – Public, Household; The role of the economic system in financing of education, and absorbing the educated manpower; Education as an industry; Education as consumption and Education as individual, social and national investment; Spill-over and inter-generational effects of education.

Section- B

Types of Educational costs and benefits: Direct and Indirect, Private and Social; External and Internal Efficiency of Education; Cost-Benefit Analysis in Education: Meaning, purpose and problems; Interpretations and evaluation of rates of return on investment in education; Theoretical aspects of Pricing of Education.

Section-C

Recent national policy on education in India; Sources of finance for education: private, public, fees, donations; Public private partnership in education; Government's role in financing education at different levels; Trends in public expenditure on education in India; Trade in education services in India.

Recommended Books:

1. Balsara, M. (1996). New Education policy and Development Challenge. New Delhi: Kanishka Publishers.
2. Blaug, M. (1972). An Introduction to the Economics of Education. London: Penguin.
3. Cohn, E. and Geske, T. G. (1990). The Economics of Education. Oxford: Pergamon Press.
4. Heggade, O. D. (1992). Economics of Education Bombay. New Delhi: Himalaya Publishing House.
5. Johns R. I. and Morphet I. (1976). The Economics and Financing of Education: A System Approach. New Jersey: Prentice-Hall Inc.
6. Muzammil, M. (1989). Financing of Education. New Delhi: New Delhi House.
7. Nagpal, C.S. and A.C. Mittal (ed). (1993). Economics of Education. New Delhi: Anmol Publications Pvt. Ltd.
8. Natarajan S. (1990). Introduction to Economics of Education. New Delhi: Sterling.
9. O'Donohue. M. (1971). Economics Dimensions in Education. Chicago: Aldine Alterton.
10. Tilak J. B. G. (1994). Education for Development in Asia. New Delhi Sage publications.

E- Learning Material

1. <https://studiousguy.com/human-resource-planning/>
2. <https://www.nuepa.org/New/>
3. <https://www.journals.elsevier.com/economics-of-education-review>
4. <https://www.sciencedirect.com/book/9780080333793/economics-of-education>
5. <https://ibukunolu.wordpress.com/2010/09/20/eme-101-basic-concept-of-economics->

ECO 513 Economics of Health

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand basic concepts of Health Economics like Prevention, Cure, Healing, Disease, Illness, and Sickness.
- Compare between Western System of Medicine and Indian System of Medicine.
- Estimate cost of illness and Burden of disease.
- Analyze demand and supply of healthcare and direction in health policy of India.

Section A

Defining Health; Behavioral and Social Models of Health, Childbirth, Childhood, Family and Individual Wellbeing, Older Age. Basic Concepts: Prevention, Cure, Healing, Disease, Illness, Sickness. Western System of Medicine; Indian System of Medicine: AYUSH; Health and Economic Growth; Epidemiological Transition.

Section B

Valuing Health and health damage; Human capital approach: measurement of mortality; value of statistical life, years of life lost; morbidity valuation: cost of illness, Burden of disease: Meaning and significance, DALY: Framework, measure of burden, Components and postulates, DALY and QALY; The GBD assessment.

Section C

Demand for health care; Demand for health: the Grossman model; Supply of health care, Government intervention in Health Care Markets, Public Health Economics-Economic Epidemiology: The demand for self-protection; Health Policy Conundrum: Arrow's impossibility theorem. Recent Initiatives in Health Sector.

Recommended Books:

1. Phelps E. Charles. (2018). Health Economics, Routledge(Taylor & Francis Group), 2018.
2. Smith, S., Nolan, A., Normand, C., & McPake, B. (2013). Health economics: an international perspective. Routledge.

3. Folland, S., Goodman, A. C., & Stano, M. (2007). The economics of health and health care (Vol. 6). Upper Saddle River, NJ: Pearson Prentice Hall.
5. Eckermann, S. (2017). Health Economics from Theory to Practice. Springer International Publishing.
6. Henderson, J. W. (2012). Health economics and policy (with economic applications). Cengage Learning.
7. Casasnovas, G. L., Rivera, B., & Currais, L. (Eds.). (2005). Health and economic growth: findings and policy implications. Mit Press.
8. Getzen, T. E. (2007). Health economics and financing. Hoboken, NJ: Wiley.
9. Briggs, A., Sculpher, M., & Claxton, K. (2006). Decision modelling for health economic evaluation. OUP Oxford.
10. Drummond, M. F., Sculpher, M. J., Claxton, K., Stoddart, G. L., & Torrance, G. W. (2015). Methods for the economic evaluation of health care programmes. Oxford university press.
11. Bhattacharya, J., Hyde, T., & Tu, P. (2013). Health economics. Macmillan International Higher Education.

E- Learning Material:

1. <http://www.indiaenvironmentportal.org.in/files/file/NHP%202018.pdf>.
2. http://rchiips.org/nfhs/factsheet_NFHS-4.shtml.
3. <https://www.thelancet.com/journals/lanpub/issue/current>
4. <https://www.thelancet.com/journals/lancet/issue/current>
5. <https://www.rand.org/health-care.html>

ECO 515 Economics of Insurance

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand the key concepts of insurance.
- Comprehend the fundamental principles of insurance, practices of insurance and different types of insurance.
- Critically analyse the relevance of insurance in economic development.
- Develop familiarity with regulatory authorities and mechanism of redressal in India.

Section-A

Definition of insurance; fundamentals of insurance; History of insurance: Life and General; Features of insurance contracts; Insurance procedure; Risk pooling and risk transfer; Kinds of insurance risk and risk management; Insurance and economic development, Insurance institutions as financial intermediaries; Insurance institutions in India; IRDAI: objectives and working.

Section-B

Principles of insurance: Utmost good faith, Insurable interest, Indemnity subrogation contribution and Proximate cause; Distinction between life and non-life insurance; Essentials of insurance contract: Certificate of insurance, Renewal procedure of policies, Premium claim arbitration procedure, Methods of settlement.

Section-C

Life insurance: nature and kinds of insurance policies, premium determination, surrender values, nomination assignment, loans, claims procedures, tax benefits; General insurance: functions and basic principles; Fire insurance: features of fire policy, Loss of profit accounting procedure; Marine insurance: essentials, types of policies, marine policy conditions; Key features of miscellaneous insurance: Motor insurance, Aviation insurance, Burglary insurance, Cattle insurance, Crop insurance, Health insurance.

Recommended Books:

1. Athearn, J.L., Pritchett, S.T. and Schmit, J.T. (1989). Risk and Insurance. St Paul: West Pub. Co., 6th Ed.
2. Bikelhqpt. D. L. (1992). General Insurance. Bus Ridge III: Irwin Inc.
3. Black Jr, K. and Skipper Jr. H.D. (1994). Life Insurance, Englewood Cliffs, NJ: Princeton Hall.
4. Dionne, G. and Harrington, S.E. (1997). Foundations of Insurance Economics. Boston: Kluwer Academic Publishers.
5. Greene, M.R. and Trieschman, J. (1988). Risk and Insurance. Cincinnati, Ohio: South-Western Pub. Co., 7th Ed.
6. Kulp, C.A. (1956). Casualty Insurance. New York: Ronald Press, 3rd Ed.
7. Mehr, R.I. (1986). Fundamentals of Insurance. Homewood, Illinois: R.D. Irwin, 2nd Ed.
8. Pfeffer, I. and Klock, D.R. (1974). Perspectives on Insurance. Englewood Cliffs, NJ: Prentice Hall Inc.
9. Rejda, G.E. (1989). Principles of Insurance. Glenview, Illinois: Scott, Foresman and Co., 3rd Ed.
10. Tacchino, K.B and Litta, D. A. (1993). Planning for Restatement Needs. The American College: Blyn Mawr.
11. Vaughan, E. J. (1989). Fundamentals of Risk and Insurance. New York: John Wiley & Sons, 5th Ed.
12. Williams, C.A. Jr. and Heins, R.M. (1989). Risk Management and Insurance. New York: McGraw-Hill Book Co., 6th Ed.

E- Learning Material

1. <https://www.irdai.gov.in>
2. <https://www.casact.org>
3. <https://blog.willis.com>
4. <https://businessschool.luiss.it/management-technology-risk-management-insurance>
5. https://link.springer.com/chapter/10.1007/978-1-349-21725-0_6
6. <https://www.sciencedirect.com/journal/insurance-mathematics-and-economics>
7. <https://www.econlib.org/library/Enc/Insurance.html>

8. https://www.researchgate.net/publication/258255633_Risk_Management_in_General_Insurance_Business_in_India
9. <https://www.journals.elsevier.com/health-policy>
10. <https://www.insuranceinstituteofindia.com>
11. <https://www.pfrda.org.in/writereaddata/links/rep2d5d02004-a7c9-4875-be6e-f8b92744e210.pdf=e90bd7771c3cf9>

ECO 519 Industrial Economics

Max. Marks : 100

L T P C

(CA: 40 + ESA: 60)

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand basic issues such as pricing policy, efficiency, demand analysis, forecasting, productivity and capacity utilization.
- Examine the internal structure of firms.
- Analyse various aspects of strategic interaction between firms and the determinants of industrial structure.
- Discusses the role of policy in the context of competition and industrial policies and regulation.
- Apply theoretical tools to analyse real issues.
- Learn industrial economics in cogent and analytical manner particularly in the Indian context.

Section A

Scope and Methodology of industrial economics; Market structure and behaviour of a firm; Productivity; efficiency and capacity utilization; Methods of measuring efficiency of a firm, Diversification, Integration and Merger; Industrial finance: Sources, structure, access and institutions.

Section B

Elasticity of Demand and business decision-making; Demand forecasting; Pricing procedures theoretical and pricing in practice; Investment decisions; financial statement and ratio analysis; Economics of patents; Recent provisions of patent rights in India.

Section C

Separation of ownership and control; Industrial relations: Definition and scope; Economics of union: Bargaining theories of wages; The economic

theory of regulation; The current measures of regulation of industries in India; Current industrial policy in India, Industrial growth in India: Trends and prospects; takeover code of SEBI; Competition policy; price policy.

Recommended Books:

1. Bain, J.E. (1959). Industrial Organization. New York: Wiley and sons.
2. Barthwal, R.R. (1984). Industrial Economics. An Introductory Text book. New Delhi: Wiley Eastern Ltd.
3. Brahmananda P.R. (1987). Productivity in the Indian Economy. Bombay: Himalayan Publication.
4. Chandra, P. (1987). Project Preparation, Appraisal, Budgeting and Implementation. New Delhi: Tata McGraw-Hill.
5. Cherunilam, F. (1994). Industrial Economics. Mumbai: Himalaya Publishing House.
6. Church J.R. and R. Ware. (2000). Industrial Organization: A Strategic Approach. Irwin McGraw-Hill.
7. Clarkson K.W. and R. Millar. (1985). Industrial Organization: Theory, Evidence and Public Policy. Tokyo: McGraw-Hill, Kogakusha.
8. Clement Krouse. (1990). Theory of Industrial Economics. London: Constable.
9. Cyret, R.M. and J.G. March. (1963). Behavioral Theory of the Firm. New Jersey: Englewood cliffs.
10. Divine, P.J. et al. (1976). An Introduction to Industrial Economics. London: George Allen and Unwin Ltd.
11. Ferguson, P. R. and G. J. Ferguson. (1994). Industrial Economics: Issues and Perspectives. London: Macmillan.
12. Ghosh, P.K. (1977). Government and Industry. Delhi: Oxford University Press.
13. Hay, A.D. and Morris Derek J. (1991). Industrial Economics and Organization: Theory and Evidence. Oxford: Oxford University Press.
14. Hennah, L. and J. Kay. (1977). Concentration of Modern Industry. London: Macmillan.
15. Kuchhal, S.C. (1987). Industrial Economy of India. Allahabad: Chaitanya.
16. Planning Commission. (1966). Report on Industries, Planning and Licensing Policy. Government of India.
17. Shepherd, W.G. (1979). Economics of Industrial Organization. USA: Prentice Hall.

18. Smith, D.M. (1971). Industrial location: an Economic and Geographic Analysis. New York: John Wiley.
19. Tirole, J. (1988). The Theory of Industrial Organization. Cambridge: MA: MIT Press.

E- Learning Material:

1. <https://dspace.mit.edu/bitstream/handle/1721.1/48172/industrialeconom00schm.pdf>
2. <https://dspace.mit.edu/bitstream/handle/1721.1/48172/industrialeconom00schm.pdf>
3. https://www.edb.gov.hk/attachment/en/curriculum-development/kla/pshe/references-and-resources/economics/Industrial_Economics_Booklet_Eng_web.pdf
<https://london.ac.uk/courses/industrial-economics-ec3099>

ECO 520 Labour Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand methodical probes of concepts like human capital, fair wage, living wage and social security.
- Analyse theories of Labour Market.
- Develop understanding upon collective bargaining and opportunities and problems of labour in changing labour market.
- Analyse labour Market Policies in India; Employment generation programs in India and their evaluations.
- Understand the dynamics of Indian Labour Market (like Platform Market) in Globalised world.

Section-A

Theories of Labour Market: Classical and Neoclassical; Marxian Conceptualisation; Commodity Production and Creation of Surplus Value. Understanding rural labour dynamics; feudal and tenancy systems, interlinked factor markets. Employment and Unemployment-concepts, types and measurement with reference to India; Education-employment linkages; Employment policy in recent years and its evaluation.

Section-B

The human capital theories of labour and employment, human capital base in Indian labour market. Theories of wage determination; classical and neoclassical view points, Wage determination under imperfect competition such as monopsony. The theory of collective bargaining of wage determination. Wage determination in the agricultural sector and in the unorganised manufacturing sector. Concepts of minimum wage, living wage and fair wage.

Section-C

Globalisation and Indian Labour Market; Labour market: flexibility and rigidities in India context. Gig Economy, Labour and informal sector in India; employment growth and quality of employment in informal sector. Labour Market Policies in India; Employment generation programs in India and their evaluations. State and social security of labour, Workmen Compensation Act, Maternity Benefit Act and Employees State Insurance Scheme, Women and Child Labour. The dimension of caste, class and gender and its implication on labour market.

Recommended Books:

1. McConnell, C. R., Brue, S. L., & Flynn, S. M. (2009). *Economics: Principles, problems, and policies*. Boston McGraw-Hill/Irwin.
2. Bharadwaj, K. (1992). *Labour markets, employment policies and the dynamics of development*. Bangladesh Institute of Development Studies, and University of Dhaka Press Limited.
3. Bhagoliwal T.N. (2002). *Economics of Labour and Industrial Relations*: Sahitya Bhavan Agra.
4. Campbell, R.M .and S.L. Brue (1995): *Contemporary Labour Economics*, McGraw Hill, NY. Dass, N., 1960.
5. Das, N. (1960). *Unemployment, Full Employment, and India*. Asia Publishing House.
6. Datt, G. (1996). *Bargaining power, wages and employment: an analysis of agricultural labor markets in India*. Sage Publications India Pvt Ltd.
7. Ghosh, J. (2004). *Macroeconomic reforms and a labour policy framework for India*. Employment Analysis Unit, Employment Strategy Department, International Labour Office.
8. Hirway, I. (2010). *NREGA AFTER FOUR YEARS: BUILDING ON EXPERIENCES TO MOVE AHEAD*. Indian Journal of Labour Economics, 53(1).

9. Jha, P. (2009). The well-being of labour in contemporary Indian economy: what's active labour market policy got to do with it? Geneva: ILO.
10. Kannan, K. P. (2009). A First Assessment of the Impact of the Global Economic Crisis on India: The Continuing Challenge of Employment. The Indian Journal of Labour Economics, 52(3), 349-373.
11. Krishnamurthy, A. Mamgain Rajendra P (Ed).(2009)Growth, Employment and Labour Markets, Perspectives in the Era of Globalisation in India, Daanish Books.
12. Mazumdar, D., & Sarkar, S. (2009). The employment problem in India and the phenomenon of the missing middle. Indian Journal of Labour Economics, 52(1), 43-55.
13. Pierre C. (2015). Labor Economics. Prentice Hall of India.
14. Sen, A.K. (1975): Employment, Technology and Development, OUP, New Delhi.

E- Learning Material :

1. <https://ocw.mit.edu/courses/economics/14-661-labor-economics-i-fall-2017/>
2. <https://www.mooc-list.com/course/labor-economics-saylororg>
3. <https://vvnli.gov.in/>
4. <https://www.ilo.org/global/lang--en/index.htm>
5. <https://www.core-econ.org/>
6. <http://www.isleijle.org/ijle/>

ECO 521 Population Studies

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand the role of population in economic development.
- Learn fundamentals of population studies like fertility, mortality and migration.
- Critically examine theories of population.
- Estimate composition and growth of population.

- Apply demographic concepts and population theories to explain past and present population characteristics.
- Assess the relationship between demographic change and policy

Section A

Meaning, Nature and Scope of population studies; Population dynamics: mortality (concepts; measurement and determinants of infant mortality), fertility (importance; measures and determinants) and migration (concept and types); Population composition: Sex, Age, Rural, Urban and Educational structure; World Population: Growth and Distribution.

Section B

Malthus' theory of Population Growth; Optimum theory of population; Theory of demographic transition; Population and economic development; Population issues and women empowerment.

Section C

Study of India's population, size, growth and characteristics; changing pattern of sex ratio in India; age structure of population; infant and child mortality rates; maternal mortality rates, life expectancy; Pattern of migration and urbanization in India; Factors responsible for high fertility rate in India; National Population Policy-2000.

Recommended Books:

1. Agarwal S.N. (1972). India's Population Problems. New Delhi: Tata McGraw Hill.
2. Bhende, A. and Kanitkar, T. (1978). Principles of Population Studies. New Delhi: Himalaya Publishing House.
3. Bogue, D.J. (1969). Principles of Demography. New York: John Wiley and Sons.
4. Bonar, J. (1926). Malthus and His Works. London: Macmillan.
5. Cassen, R. (1999). Population and Development Revisited. In Harriss-White, B. and S.
6. Subramanian (Eds.) Illfare in India: Essays on India's Social Sector in Honour of S.Guhan. New Delhi: Sage Publications.
7. Cassen, R.H. (1978). India: Population, Economy, Society. London: Macmillan.
8. Coale A.J. and Hoover E.M. (1958). Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects. New Jersey: Princeton University Press.
9. Coontz, Sydeny H. (1957). Population Theories and the Economic Interpretation. London: Routledge.

10. Govt. of India. Census of India. GoI.
11. Gulati, S.C. (1988). Fertility in India: An Econometric Study of Metropolis. New Delhi: Sage Publication.
12. Jones, G. W. (2005). Why are population & development issues not given priority?' Asia-Pacific Population Journal.
13. Krishnaraj, at.el. (1998). Gender, Population and Development. New Delhi: Oxford University Press.
14. Government of India. (Reprint 2002). Ministry of Health & and Family Welfare: National Population Policy 2000. GoI.
15. Shiva Kumar, at.el. (Ed). (2010). Oxford Handbook of Population and Development in India. Delh: OUP.
16. Simon J. L. (1977). Theory of Population Growth. Princeton University Press.
17. Srinivasan K. (1997). Basic Demographic techniques and Applications. Sage Publication.
18. Srivastava, R. S. (2011). Internal Migration in India: An Overview of its Features, Trends and Policy Challenges. National Workshop on Internal Migration and Human
19. Development in India. New Delhi: UNICEF and ICSSR.
20. Thomson, Warren S. and Levis, D. I. (1965). Population Problems. New York: McGrawHill.
21. Turchi, B. (1975). A Micro-economic Theories of Fertility: A Critique. Social Forces.

E- Learning Material:

1. <http://ipsindia.org>
2. <http://eprints.lse.ac.uk/32511/1/Population%20and%20development%20%28Isero%29.pdf>
3. <https://www.tandfonline.com/loi/rpst20>
4. <https://www.hindawi.com/journals/ijpr/>
5. <http://ojs.whioce.com/index.php/ijps>
6. <http://censusindia.gov.in>

ECO 522 Regional Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand static and dynamics of regional development.
- Analyse the techniques of regional analysis.
- Apply economic theory to topical issues of regional economics.
- Discuss urban growth and policy implications.
- Compare regional inequalities and policy recommendations

Section A

Definition of Regional Economics; Regional Development: Concepts, Nature and Scope, Indicators of regional development; Theories of regional development; E. Hoover, G. Myrdal, A.O. Hirschmann.

Section B

Regional Planning: Components, Magnitude and Determinants.; Regional Growth; The Export Base Model and Growth as an Internal Process, Structure and Functions of Multi level Planning and Decision Making for Sustainable Development, Gravity model; Analyzing relationship between regional development and Politics.

Section C

Regional imbalances and inequalities; Process of urbanisation; Regional planning for agricultural development; Regional planning for rural development; Rashtriya Sam Vikas Yojna (RSVY); Regional planning and sustainable development in India

Recommended Books:

1. Richardson, H.W. (1969). Regional Economics. New York: Praeger Publishers, Inc.
2. Bhat, L.S. (1972). Regional Planning in India. Calcutta: Statistical Publishing Society.
3. R. P. Mishra and R. N. Achyutha (edited). (1990). Micro-level Rural Planning, Principles, Methods and Case Studies. New Delhi: Concept Publishing Co.
4. Robert J. Stimson and Roger R. Stough. (2nd ed). (2006). Regional Economic Development: Analysis and Practice. Springer Publication.
5. Chand, M. and V. K. Puri. (1983). Regional planning in India. New Delhi: Allied Publishers.
6. Hoover, E.M. (1974). An introduction to Regional Economics. New York: Alfred A. Knopf.
7. Isard, W. (1960). Methods Regional Analysis. Cambridge: MIT Press.

8. Nair, K.R.G. (1982). *Regional Experience in a Developing Economy*. New Delhi: Wiley-Eastern.
9. Richardson, H.W. (1969). *Regional Economics*. London: Weidenfield and Nicolson.
10. Brahmananda, P.R. Pachmukhi (Eds.) (2001). *Development Experience in the Indian economy: Inter-State Perspectives*. Delhi: Bookwell.
11. Beckman, M. (1968). *Location Theory*. London: House.
12. Bhalla, G. S. and Y. K. Alagh. (1979). *Performance of Indian Agriculture: A District-wise Study*. New Delhi: Sterling.
13. Dholakia. R.H. (1985). *Regional Disparity in Economic Growth in India*. Bombay: Himalaya Publishing House.
14. Friedman, J. and W. Alonso (Eds.) (1975). *Regional Policy, Readings in theory and Application*. , Cambridge: MIT Press.
15. Glasston. (1975). *An Introduction to Regional Planning: Concepts, Theory and practice*. London: Hutchison.
16. Hansen, N. M. (1974). *Public Policy and Regional Economic Development; the Experience in Nine Western Countries*. Massachusetts: Ballinger.
17. Lefebvre, L. (1968). *Allocation in Space*. New York: North-Holland.
18. National Bureau of Economic Research (1957). *Regional Income*. Princeton: Princeton University Press.
19. Rao, H. (1984). *Regional Disparities and Development in India*. New Delhi: Ashish Publishing House.
20. Richardson, H.W. (1972). *Input-output and Regional Economics*. London: Weidenfelds and Nicolson.
21. Richardson, H.W. (1973). *Regional Growth Theory*. New York: John Wiley.
22. Seth, V. K. (1987). *Industrialization in India: A Spatial Perspective*. New Delhi: Commonwealth Publishers.
23. Siebert, V.K. (1969). *Regional Economic Growth: Theory and policy*. Scranton: International Textbook Company.

E- Learning Material

1. <https://www.pbl.nl/en/question-and-answer/what-is2>.
2. <http://www.ub.edu/searchproject/wp-content/uploads/2012/02/WP-1.3.pdf>
3. <http://planningcommission.nic.in>
4. www.nber.org,
5. <https://www.economicsnetwork.ac.uk>

ECO 523 Rural Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand dynamics of rural economy.
- Explain different approaches to rural development.
- Critically examine various schemes and projects that benefit the rural population.
- Identify different problems faced by rural population.
- Apply innovative tools to analyse, evaluate and solve problems related to rural development.

Section A

Rural Economics; Concept, Scope, Objectives and Importance of Rural Economics. Characteristics of Rural Economy; Rural-Urban Linkages and Disparity. Rural Economy of India; Size and Structure of Rural Economy. Approaches to Rural Development; Gandhian Approach, Regional approach, PURA and PRIs.

Section B

Natural Resources; Land and Soil, Water, Fisheries, Forestry and Biodiversity. Diversification of Rural Economy; Non Farm Sector, Rural Industrialisation and Rural Services. Rural Finance; Rural Money Market, RRBs, NABARD. Problems of Rural Economy; Poverty, Unemployment, Inequality and Rural Indebtedness.

Section C

Strategies of Rural Development; Growth oriented strategy, Welfare strategy, Responsive strategy, Holistic strategy, Right-based strategy. Rural Development Programmes; Objectives and Appraisal (SJGSY and MGNREGS). Rural Economy; Vulnerability and Sustainability.

Recommended Books

1. Ahmed, A.U. and Bagchi, K. (2007). Adoption of New Technology and Agricultural Development. New Delhi: Abhijeet Publications.
2. Dandekar, V. M. and Rath, N. (1971). Poverty in India. Poona: Indian School of Political Economics.
3. Datt, R. Sundaram, K.P.M. (2018). Indian Economy. New Delhi: S. Chand and Company.

4. Desai, V. (2007). Study of Rural Economics. New Delhi: Himalaya Publishing Company.
5. Singh, G.K. (2003). Administration for Rural Development Programme in India. New Delhi: Abhijeet Publications.
6. Government of India. Economic Survey. Economic Division, Ministry of Finance, Various Issues.
7. Mishra, S.K. and Puri, V.K. (2018). Indian Economy. Mumbai: Himayala Publishing House.
8. Nayak, S. (2005). Irrigation and Economic Development. New Delhi: Abhijeet Publications.
9. Devi, S. (1996). Rural Credit and Agricultural Development. New Delhi: Scrap & Sons.

E- Learning Material :

1. <https://rural.nic.in>
2. <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/rural-development>
3. <https://www.nabard.org>
4. <http://nrega.nic.in/netnrega/home.aspx>

ECO 525 Urban Economics

Max. Marks : 100

(CA: 40 + ESA: 60)

L	T	P	C
5	0	0	5

Learning Outcome:

After completion of the course, the student will be able to:

- Define a City and explain its economic functions.
- Explain the processes of formation of an urban space like City.
- Elucidate the importance of land, its scarcity, and its regulation in an urban setting
- Explain the impact of migration from rural areas to urban areas and role of regional and balanced development in managing the problems of migration.
- Understand various Urban problems and conceptualise the role of government at different levels in governance of Urban areas.

Section A

City- Definition and Economic Function, Optimum City Size and Agglomeration, Urban Morphology; Relationship between Rural and Urban areas, Urbanization and Economic Growth: Myrdal's Theory of Cumulative

Causation; Lewis Two Sector Model; Theories of urban structure and urban growth: Concentric Zone Theory, Central Place Theory, Urban base theory, Weberian Locational Theory

Section B

Land in Urban Setting: Rent, Land Use Pattern, Rent Control, Housing Shortages, Real Estate Regulation, Urban slums; Urban unemployment and Urban - Rural Migration: Hariss-Todaro model of Migration; Problems of Urbanisation: Externalities, Pollution, Congestion, Crime; Measures to control Urbanization- Satellite towns, Regional Planning and Development, Sustainable and Environment friendly cities

Section C

Role of Local Government: Urban local bodies, Local Finance, Local Taxes, Problems of Taxation; Urban Infrastructure: importance and Financing; Urban Transportation- Importance and financing; Role of Central Government in Urban Governance: Finance commission and State Finance Commission, JNNURM (now AMRUT), Smart City Programme, RERA-2016.

Recommended Books:

1. Ahluwalia, Isher Judge, and Kanbur, Ravi (2014). Urbanisation in India: Challenges, Opportunities and the Way Forward. New Delhi: Sage India.
2. Evans, A.W. (1984). Urban Economics. , London: Basil Blackwell.
3. Jacobs, J. (1960). The Economy of Cities. New York, NY: Random House.
4. Kulshrestha, S.K. (2012). Urban and Regional Planning in India: A Handbook for Professional Practice. New Delhi: Sage India.
5. Ministry of Housing and Urban Poverty Alleviation, Government of India, (2014). Inclusive Urban Planning: State of the Urban Poor Report-2013. New Delhi: Oxford University Press.
6. O'sullivan, Arthur. (2007). Urban Economics. McGraw-Hill/Irwin.
7. Ramachandran, R. (1989). Urban Economics and Urban Systems in India. OUP.
8. Ramesh, G., Nagadevara, Vishnu Prasad, Naik, Gopal, and Suraj, Anil. (2010). Urban Infrastructure and Governance. New Delhi: Routledge India.
9. Ruet, Joel, and LamaRewal, Stephanie Tawa. (2009). Governing India's Metropolis: Case Studies of Four Cities, New Delhi: Routledge.

10. Shaw, Annapurna. (2012). Indian Cities, New Delhi: Oxford University Press.
11. Shukla, V. (1996) Urbanization and Economic Growth, Himalaya Publishers Pvt. Ltd
12. Sivaramakrishnan, K.C., Kundu, Amitabh and Singh, B.N. (2007). Handbook of Urbanization in India. Oxford University Press. New Delhi.
13. Sivaramakrishnan, K.C. (2011). Re Visioning Indian Cities: The Urban Renewal Mission, Sage India, New Delhi.
14. Sridhar, Kala Seetharam, and Reddy, Venugopal. (2010). State of Urban Services in India's Cities: Spending and Financing. Oxford University Press, New Delhi.
15. Vinod, T.M., (2014). Geographic Information Systems for Smart Cities. COPAL Publishing Group, Ghaziabad.
16. World Bank (2013). Urbanization Beyond Municipal Boundaries: Nurturing Metropolitan Economies and Connecting Peri-Urban Areas in India. World Bank Publications. Washington DC.

E- Learning Material :

1. <http://iihs.co.in/>
2. <http://www.econport.org/content/handbook>
3. <http://www.iutindia.org/>
4. <https://www.niti.gov.in/>

STAT 509 Econometrics

Max. Marks : 100

(CA: 40 + ESA: 60)

L T P C

5 0 0 5

Learning Outcome:

After completion of the course, the student will be able to:

- Understand fundamental concepts of econometrics.
- Critically examine the theory of econometrics.
- Apply different techniques relating to treatment of three main types of data namely cross section, time series and panel.
- Learn to construct econometric models, estimate the parameters of these models and interpret the parameters estimates.
- Analyse data drawn from real-world and use econometric methods in solution of economic, business and financial problems.

Section A

Definition: scope, goals and division of econometrics. Methodology of econometric research. Linear regression model in two and more than two variables, OLS, Statistical properties of least square estimates; Concept and uses of dummy variables.

Section B

Violation of classical assumptions of regression model: Multicollinearity, Heteroscedasticity and Autocorrelation; Simultaneous equation bias, and Inconsistency of ordinary least squares estimators, Identification problem; Estimation of simultaneous equation system through indirect least squares.

Section C

Introduction to time series analysis: Stationarity, Test of stationarity, Dickey-Fuller and PP Unit root; Problem of spurious regression and concept of co-integration (Engle–Granger test), Error correction mechanism and Granger causality test; A basic introduction to panel data techniques: Fixed and Random effect model.

Recommended Books:

1. Wooldridge, J. (2012). *Introductory Econometrics: A Modern Approach*. US: South- Western.
2. Ramanathan, R. (2002). *Introductory Econometrics with Applications*. Stamford: Thomson Learning.
3. Gujarati, N.D. (2003). *Basic Econometrics*. US: McGraw Hill.
4. Koutsoyiannis, A. (2001). *Theory of Econometrics*. UK: Palgrave Macmillan.
5. Baltagi, B.H. (2005). *Econometric Analysis of Panel Data*. England: John Willey and Sons.

E- Learning Material:

1. www.statsoft.com
2. www.statcounter.com
3. www.meandeviation.com
4. <https://www.ssc.wisc.edu/~bhansen/econometrics/Econometrics2006.pdf>
5. <https://www.ssc.wisc.edu/~bhansen/econometrics/Econometrics2006.pdf>

Reading Elective

ECO 514R Economics of Infrastructure

Max. Marks : 100

L	T	P	C
0	0	0	2

Learning Outcome:

After completion of the course, the student will be able to:

- Understand economic foundations for public policy.
- Analyze the infrastructural issues.
- Identify various tools required for policy analysis of infrastructure.
- Explain the strength of physical infrastructure in the process of economic development.

Infrastructure plays a very critical role in development of a country like India by ensuring increased economic growth and additions in productivity which further fuels economic growth. Students will understand this critical role of infrastructure by engaging with literature on Infrastructure and economic development and Infrastructure as a public good. Students should be able to understand the concepts of social and physical infrastructure and their characteristics and types, public utilities and the rationale of their state provision, the peak-load and off-peak load problem, marginal cost pricing vs. other methods of pricing in public utilities, Cross- subsidization and free prices. Transport infrastructure is an important type of infrastructure and it is important to engage with the structure of transport costs and location of economic activities, along with demand and supply of transport in India. Power is a very important constituent of the infrastructure of an economy and plays a critical role too. Keeping this in mind, students are encouraged to understand the main sources of power generation in India and their trend and pattern. World over water and sanitation is identified as a critical input in the well being of a society and plays an infrastructural role. It is important to understand water supply and sanitation sector in India by analytically observing an overview of various programmes and present scenario. Telecommunications sector in India in recent past has helped increase connectivity and productivity in urban as well as rural sector. It becomes imperative to engage with principles of rate fixation and

decreasing costs in telephone industry, privatization and competitiveness. It is also critical to investigate about the role of government and private sector in development of infrastructure in India and engage with new developments like public-private partnership in infrastructure development in India.

Recommended Books:

1. Centre for Monitoring Indian Economy. (1996). India: Energy Sector. CMIE. Mumbai.
2. Crew, M.A. and P.R. Kleindorfer. (1979). Public Utility Economics. London: Macmillan.
3. Desai, A. (2006). India's Telecommunications Industry: History, Analysis, Diagnosis. New Delhi: Sage India
4. Government of India. (1980). Report of the Committee on Power (Rajadhyaksha Committee). Ministry of Power, Government of India, New Delhi.
5. Indian Council of Social Sciences Research (ICSSR). (1976). Economics of Infrastructure. New Delhi: ICSSR.
6. Kneafsey, J.T. (1990). Transportation Economic Analysis. Delhi: Lexington.
7. McCrakis, M.S. (Ed.). (1974). Energy: Demand Conservation and Institution Problems. London: Macmillan.
8. Munty, D. (Ed.). (1968). Transport: Selected Readings. Harmondsworth: Penguin.
9. ational Council of Applied Economic Research (NCAER). (1996). India Infrastructure Report: Policy Implications for Growth and Welfare. NCAER, New Delhi.
10. Nelson, J.R. (1964). Marginal Cost Pricing in Practice. Englewood-Cliff: Prentice-Hall.
11. Nordhaus, W.D. (Ed.). (1974). International Studies of the Demand for Energy. Amsterdam: North Holland.
12. Norton, H.S. (1971). Modern Transport Economics. London: C.E. Merrill.
13. Sharma, V.P. (2017). Water and Sanitation in the New Millennium. India: Springer Pvt. Ltd.

14. Turvey, R. and D. Anderson. (1977). Electricity Economics. Baltimore: John Hopkins University Press.

E- Learning Material

1. <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1813-6982.2006.00086.x>
2. <https://economictimes.indiatimes.com/news/economy/infrastructure>
3. <https://www.ukessays.com/essays/economics/an-analysis-ofinfrastructure-development-in-india-economics-essay.php>
4. http://american_almanac.tripod.com/infras.htm

ECO 517R Financial Institutions and Markets

Max. Marks : 100

L	T	P	C
0	0	0	2

Learning Outcome:

After completion of the course, the student will be able to:

- Understand changing role of financial markets and institutions.
- Analyze different types of financial instruments and services.
- Explain working of the financial system in the era of liberalization, privatization and globalization.

After the major economic reforms of 1990s, the financial sector in India has witnessed critical developments. In this context it is important to understand the role and structure of financial system, the relationship between financial system & economic development and the role of financial intermediation & intermediaries. The overall working of the financial sector requires engagement with constituents of the financial sector such as Money market (Call money market, treasury bill market, commercial bill market), Capital market (Primary and secondary markets for securities), banking and non-banking financial institutions, specialized financial institutions (IFCI, IDBI, ICICI, SIDBI, NABARD), Hire-purchase finance, Lease financing, venture capital funds, UTI and mutual funds (organization and schemes), and Insurance companies (types and structure). Within the larger framework of increased financial integration within the world it is important to understand

the nature composition and growth in Small savings and role of Provident funds and Pension funds. Given the risks involved in the financial system and need for proper oversight and regulation it becomes imperative to understand the importance, objective and functions of Credit rating agencies, SEBI and IRDA.

Recommended Books:

1. Bhole, L.M. (2003). Financial Institutions and Markets. New Delhi: Tata McGraw Hill Company Ltd.
2. Edminster, R.O. (1986). Financial Institutions, Markets and Management. New York: McGraw Hill.
3. Johnson, H.J. (1993). Financial Institutions and Markets. New York: McGraw Hill.
4. Khan, M.Y. (1996). Indian Financial System. New Delhi: Tata McGraw Hill.
5. Machiraju, M.R. (1999). Indian Financial Systems. New Delhi: Vikas Publishing House.
6. Ohlson, J.A. (1987). The Theory of Financial Markets and Institutions. Amsterdam: North Holland.
7. Prasad, K.N. (2001). Development of India's Financial System. New Delhi: Sarup & Sons.
8. Robinson, R.I. and Wrightman. (1981). Financial Markets. London: McGraw Hill.
9. Rose, Peter S. (2002). Money & Capital Markets. New York: McGraw-Hill Education.
10. Saunders, A. (2001). Financial Markets and Institutions. New York: McGraw Hill Irwin.

E- Learning Material:

1. <https://www.rbi.org.in>
2. <https://www.sebi.gov.in>
3. <https://www.irdai.gov.in>
4. http://www.pondiuni.edu.in/storage/dde/downloads/finiii_ifs.pdf
5. http://shodhganga.inflibnet.ac.in/bitstream/10603/145119/13/13_chapter%203.pdf

ECO 518R Global Economy

Max. Marks : 100

L	T	P	C
0	0	0	2

Learning Outcome:

After completion of the course, the student will be able to:

- Define basic concepts required for understanding the working of Global Economy.
- Understand the role of India in Global Economy.

Some of the basic debates about Global Economy are centered on the idea of globalization as a boon or bane. In recent times Global Economy has also witnessed emergence of the intellectual category of Geo-economics and it is important to engage with at least its meaning and concept. Global economy can also be understood from the vantage point of global economic order and new global economic order and for students it is important to situate India in the global economic order via Non Aligned Movement, G20, WTO, BRICS. Within the existing global economic order one of the most important concerns in recent times has been around increasing global economic inequality. Students are encouraged to understand the classification of countries at the global level into developed, developing, underdeveloped countries, and engage with the idea of the North-South Divide within the larger context of increasing influence of multinational corporations, bilateral investment agreements and global finance. Global Economy has also provided with ample opportunities for developing countries like India. To understand the integration and engagement of Indian economy with global economy there is a need to understand the process of outsourcing in the context of India's ITES, BPO & KPO industry and emergence of India and China as global manufacturing hub. Another set of fruitful involvement with global economy for India comes in the form non resident Indians. It is critical to know about major destinations for NRIs and remittances inflow to India. India has also witnessed increases in its trade and investment related engagement with global economy and it is important to understand India's trade partnerships in the form of major trading partners, trade blocks, and regional cooperation agreements along with inbound FDI and Indian investments abroad by major Indian multinational companies.

Recommended Books:

1. Banga, Rashmi, and Pritish Kumar Sahu. (2010). Impact of Remittances on Poverty in Developing Countries. UNCTAD, United Nations, Switzerland.
2. Ghosh, J., & Chandrasekhar, C. P. (Eds.). (2009). After crisis: Adjustment, Recovery and Fragility in East Asia. Tulika Books.
3. Lewis, W. A. (1982). The Evolution of the International Economic Order. International Economics Policies and their Theoretical Foundations. Academic Press, (pp. 15-37).
4. Nayyar, D. (2017). Employment, Growth and Development: Essays on a Changing World Economy. Routledge India.
5. Roy, Tirthankar. (2012). India in the World Economy: From Antiquity to the Present. Cambridge University Press.
6. Srinivasan, Thirukodikaval Nilakanta, and Suresh D. Tendulkar. (2003). Reintegrating India with the World Economy. Columbia University Press.
7. Stiglitz, Joseph E. (2007). Making Globalization Work. WW Norton & Company.

E- Learning Material:

1. <https://www.niti.gov.in/>
2. <https://www.economist.com/>
3. <http://icrier.org/>

ECO 524R Startup Economics**Max. Marks : 100**

L	T	P	C
0	0	0	2

Learning Outcome:**After completion of the course, the student will be able to:**

- Define basic concepts required to observe and understand Startups globally and in India

- Understand the role of Entrepreneur in Economic theory
- Appreciate the idea of a Firm and understand the different phases of evolution of a Firm according to economic theory.

This course aims at defining basic concepts required to observe and understand Startups globally and in India. For this purpose it proposes that the students do a reading based exploration to cover the important background economics theories and concepts related to the Startup world. Some important concepts that need to be understood includes, role of entrepreneur and innovation theory, theory of uncertainty, theory of the firm and evolution of a firm according to approaches like transaction cost approach. To understand the world of startup, students need to grasp the analytics of startups and for this it is suggested that reading is directed towards basic concepts like opportunity cost, breakeven point, shut down point, market structure, product differentiation, selling cost, price collusion, need of marketing, advertising, business intelligence, time value of money, valuation of a startup, types of partnership and ownership, venture capital, angel investors, and IPO. Students are also expected to understand the policy and business environment in India around Startups by engaging with case studies of successful startups in the country and initiatives like Startup India Scheme and various other policies for promotion of women entrepreneurship in the country.

Recommended Books:

1. Coase, R. H. (1937). The Nature of the Firm. *Economica*, 4(16), 386-405.
2. Hart, O. (2008). *Economica* Coase lecture: Reference points and the Theory of the Firm. *Economica*, 75(299), 404-411.
3. Samuelson, Paul A. and Nordhaus D. William. (2009). *Economics: An Introductory Analysis*, McGraw-Hill.
4. Varian, Hal. R. (1999). Market structure in the network age. *Understanding the Digital Economy*, MIT Press, Cambridge, MA, 137-150.
5. Williamson, Oliver E. (2002). The Theory of the Firm as Governance Structure: from Choice to Contract. *Journal of Economic Perspectives*, 16.3, 171-195.
6. Williamson, Oliver, and Sidney Winter. (1993). *The Nature of the Firm: Origins, Evolution, and Development*. Oxford University Press.

E- Learning Material

1. <http://www.econport.org/content/handbook>
2. <https://www.niti.gov.in/>
3. <https://www.economist.com/>
4. <https://www.startupindia.gov.in/>
5. <https://yourstory.com/>
6. <https://pickmystory.com/>

List of Online Reading Elective

Energy within Environmental Constraints

Max. Marks : 100

L	T	P	C
0	0	0	2

Learning Outcome:

After completion of the course, the student will be able to:

- Analyse basic environmental science, and economics of energy system.
- Understand working of energy technologies.
- Analyse environmental impacts of the energy system, focusing on air pollution, climate change, and land use.
- Elucidate techniques for estimating monetary costs and carbon impacts.

Duration: 10 weeks

Efforts: 45-50 Hours

Level: Introductory

Language: English

Platform: edX

URL: <https://www.edx.org/course/energy-within-environmental-constraints-0>About Course:

Humanity faces an immense challenge: providing abundant energy to everyone without wrecking the planet. If we want a high-energy future while protecting the natural world for our children, we must consider the environmental consequences of energy production and use. But money matters too: energy solutions that ignore economic costs are not realistic, particularly in a world where billions of people currently can't afford access to basic energy services. How can we proceed?

Energy Within Environmental Constraints won't give you the answer. Instead, we will teach you how to ask the right questions and estimate the consequences of different choices.

This course is rich in details of real devices and light on theory. You won't find any electrodynamics here, but you will find enough about modern commercial solar panels to estimate if they would be profitable to install in a given location. We emphasize costs: the cascade of capital and operating

costs from energy extraction all the way through end uses. We also emphasize quantitative comparisons and tradeoffs: how much more expensive is electricity from solar panels than from coal plants and how much pollution does it prevent? Is solar power as cost-effective an environmental investment as nuclear power or energy efficiency? And how do we include considerations other than cost?

This course is intended for a diverse audience. Whether you are a student, an activist, a policymaker, a business owner, or a concerned citizen, this course will help you start to think carefully about our current energy system and how we can improve its environmental performance.

Making Government work in Hard Places

Max. Marks : 100

L	T	P	C
0	0	0	2

Learning Outcome:

After completion of the course, the student will be able to:

- Identify and analyze obstacles to building better government
- Identify solutions tool-kit for solving several common yet difficult problems
- Familiarise with some important contemporary reform leaders, their work, and their ideas
- Understand some basic skills, including streamlining a process, project-management, and strategy development

Duration: 8 Weeks

Efforts: 40-45 Hours

Level: Advanced

Language: English

Platform: edX

URL:<https://www.edx.org/course/making-government-work-in-hard-places>

About Course:

This course includes **Burmese translations** of most of the videos, case studies and quizzes. Around the globe, there are public servants and civic leaders who want to create a better future for their fellow citizens. The

challenge is how to deliver—how to create new practices, build new institutions, implement new policies, and transform incentives to sustain transformation.

This course is about the “hows” of generating institutional change in hard places. Each week we focus on a different kind of challenge. You will read a case study, examine a problem in detail, help create a “solutions” toolkit, and then apply these insights to a second case.

The course introduces concepts and insights from applied political economy and the science of delivery. Topics include:

- Reducing delay, error, and diversion of funds in citizen services
 - Using citizen monitoring and community-driven projects to improve services in rural areas
 - Preventing conflicts of interest or self-dealing from blocking institutional reform; building trust and community and changing public expectations
 - Overcoming capacity traps (what to do when brain drain, political turbulence, or other problems de-skill government)
 - Facilitating coordination at the cabinet level
 - Developing a strategy and the incentives to sustain change.
 - Drawn from actual experience around the world, each case starts with the problems a reform leader faced and traces the steps taken to address these. You will have a chance to assess the process and decide whether the solutions might work in your own context, as well as offer new proposals.
 - Through quizzes and open response assignments, you will be able to share ideas with others and practice what you have learned.
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