



HSNC University Mumbai

(2022-2023)

Ordinances and Regulations

With Respect to

Choice Based Credit System

(CBCS)

For the Programmes Under

Faculty of Arts

For the Course

M.A. Economics

Curriculum – First- & Second-Year Postgraduate Programmes

Semester-I, II and Semester –III, IV

2022-23

Section-D
Faculty of Arts
Department of Economics
M. A. ECONOMICS
SYLLABUS FOR 2022-23

Preamble:

The Department of Economics has strived to develop a curriculum that aims to encourage ethical, need-based, industry-endorsed and globally acceptable programmes and research.

The subject of Economics deals with consumer theory, producer theory, markets, national income, international trade, monetary policy, fiscal policy, development theories, economic thought and many more to understand individual markets as well as the aggregate economy. The curriculum will not only teach the theoretical models but it will help the students to cultivate a way of thinking that requires a critical eye and a rigorous method of logical reasoning. The subject provides a scope to analyze problems quantitatively by using a mathematical approach. Through the curriculum the students will acquire many general and specific skills which will make them adaptable to many opportunities after graduation.

The first year has been divided into two semesters. Each semester includes 4 papers of 100 marks each.

Semester I: 1) Micro Economics I, 2) Macro Economics I, 3) Development Economics, 4) Industrial Economics (4 Core papers).

Semester II: 1) Micro Economics II, 2) Macro Economics II, 3) Indian Economic Policy, 4) International Trade Theory & Practice (4 Core papers).

The second year also has been divided into two semesters.

Semester III: 1) Basic Econometrics, 2) Mathematics for Economics, 3) Financial Economics, 4) Law & Economics I, 5) Behavioural Economics, 6) Urban Economics, and 7) Economics of Health & Education. (Any 5 out of Electives)

Semester IV: 1) Economics of Service, 2) Economics of Climate Change & Resource Development, 3) Law & Economics II, 4) Introduction to R software & Statistical use of R

software. Dissertation of 100 marks is compulsory for everyone in Sem IV. (Any three out of 4 electives)

The curriculum tries to encourage students towards self-learning. Some of the topics have been identified for them to learn through the various online resources launched by the University Grants Commission (UGC) along with the Ministry of Education. The same topics will be used for discussions using case studies. They will be assessed using short assignments based on those materials.

Thus, our curriculum in Economics will provide analytical and critical thinking tools to address challenges in the students' professional career.

1. Course Objectives:

1. To provide a sound understanding in microeconomic theory.
2. To introduce diverse concepts related to economic growth and development by giving special emphasis on structural issues related to the process of development.
3. To introduce the economics of finance.
4. To familiarise the composition, direction and consequences of international trade.
5. To acquaint students with various components of the Indian financial system.
6. To enable students understand various environmental problems and policies.
7. To think analytically and critically using logical reasoning and relate with law.
8. To encourage self-learning through online component (SWAYAM)

2. Process adopted for Curriculum designing:

A team was constituted with four internal members, four alumni and three external experts to frame the syllabi. After conducting several meetings and discussions, the changes in the syllabus were introduced.

3. Salient features, how it has been made more relevant:

The current course is designed to enhance the knowledge and skill of the subject. While designing the curriculum, a well- balanced approach has been taken for all papers so as to provide a clear understanding of the subject to the learners.

The course will help the students to develop requisite skills in areas which have direct bearing on future employment prospects and meet the requirements of business, corporate sector, public services and other professional jobs.

4. Learning Outcomes: The students will be able to

1. Understand, summarize, analyse and apply the concepts of Micro and Macro Economics in their daily lives.
2. Understand the functioning of imperfect markets, game theory and general equilibrium among others.
3. Analyse the policy options related to the problems like inequality, poverty etc.
4. Appreciate basic models of corporate finance, investment and portfolio analysis.
5. Comprehend the different theories of goods and money market, exchange rate regimes
6. Analyse national and international policies of trade, financial flows.
7. Appreciate the trends that have taken place in the Indian financial sector.
8. Analyze policy options for different environmental issues.
9. Understand relation of law and economics.

5. Input from stakeholders:

The modifications suggested by internal and external experts as well as alumni have helped to make the syllabus more holistic and comprehensive. The value addition in the syllabus will definitely prove to be extremely relevant in the context of growing demands of an economy.

Part 2 - The Scheme of Teaching and Examination

Sr. No	Choice Based Credit System	Subjects		Subject Code	Remarks
SEMESTER I					
1	MA-Economics	Economics Paper I: Microeconomics I	Theory	PH-FEC-101	
2	MA-Economics	Economics Paper II Macroeconomics I	Theory	PH-FEC-102	
3	MA-Economics	Economics Paper III Development Economics	Theory	PH-FEC-103	
4	MA-Economics	Economics Paper IV Industrial Economics	Theory	PH-FEC-104	

Sr. No	Choice Based Credit System	Subjects		Subject Code	Remarks
SEMESTER II					
1	MA-Economics	Economics Paper V Microeconomics II	Theory	PH-FEC-201	
2	MA-Economics	Economics Paper VI Macroeconomics II	Theory	PH-FEC-202	
3	MA-Economics	Economics Paper VII Indian Economic Policy	Theory	PH-FEC-203	
4	MA-Economics	Economics Paper VIII International Trade Theory & Practice	Theory	PH-FEC-204	
SEMESTER III (choose 5 out of 7 papers)					
1	MA-Economics	Economics Paper IX Basic Econometrics	Theory	PH-SEC-301	
2	MA-Economics	Economics Paper X Mathematics for Economist	Theory	PH-SEC-302	
3	MA-Economics	Economics Paper XI Financial Economics	Theory	PH-SEC-303	
4	MA-Economics	Economics Paper XII Law & Economics I	Theory	PH-SEC-304	
5	MA-Economics	Economics Paper XIII Behavioural Economics	Theory	PH-SEC-305	
6	MA-Economics	Economics Paper XIV Urban Economics	Theory	PH-SEC-306	
7	MA-Economics	Economics Paper XV Economics of Health & Education	Theory	PH-SEC-307	
SEMESTER IV (choose 3 out of 4 papers) and 1 Dissertation					
1	MA-Economics	Economics Paper XVI Economics of Service	Theory	PH-SEC-401	
2	MA-Economics	Economics Paper XVII Economics of Climate Change & Resource Development	Theory	PH-SEC-402	
3	MA-Economics	Economics Paper XVIII Law & Economics II	Theory	PH-SEC-403	
4	MA-Economics	Economics Paper XIX Introduction to R Software & Statistical use of R Software	Theory	PH-SEC-404	
5	MA-Economics DISSERTATION	Economics Paper XX DISSERTATION 1) Research Paper 50 marks 2) Presentation 30 marks 3) Viva voice 20 marks	Theory	PH-SEC-405	

Third year Semester-I, II, III and IV Internal and External Assessment Details

Sr. No.	Subject Code	Subject Title	Lectures Per Week (Lecture of 45 min)					Credits	Evaluation Scheme					Total Marks	
			Units	S.L.*	L	T	P		SLE	TA	CT	Proj.	SEE		PE
SEMESTER I															
1	PH-FEC-101	Economics Paper I Microeconomics I	4	20 %	4	0	0	4	10	05	15	10	60	0	100
2	PH-FEC-102	Economics Paper II Macroeconomics I	4	20 %	4	0	0	4	10	05	15	10	60	0	100
3	PH-FEC-103	Economics Paper III Development Economics	4	20 %	4	0	0	4	10	05	15	10	60	0	100
4	PH-FEC-104	Economics Paper IV Industrial Economics	4	20 %	4	0	0	4	10	05	15	10	60	0	100
SEMESTER II															
1	PH-FEC-201	Economics Paper V Microeconomics II	4	20 %	4	0	0	4	10	05	15	10	60	0	100
2	PH-FEC-202	Economics Paper VI Macroeconomics II	4	20 %	4	0	0	4	10	05	15	10	60	0	100
3	PH-FEC-203	Economics Paper VII Indian Economic Policy	4	20 %	4	0	0	4	10	05	15	10	60	0	100
4	PH-FEC-204	Economics Paper VIII International Trade Theory & Practice	4	20 %	4	0	0	4	10	05	15	10	60	0	100
SEMESTER III															
1	PH-SEC-301	Economics Paper IX Basic Econometrics	4	20 %	4	0	0	4	10	05	15	10	60	0	100
2	PH-SEC-302	Economics Paper X Mathematics for Economist	4	20 %	4	0	0	4	10	05	15	10	60	0	100
3	PH-SEC-303	Economics Paper XI Financial Economics	4	20 %	4	0	0	4	10	05	15	10	60	0	100

Sr. No.	Subject Code	Subject Title	Lectures Per Week (Lecture of 45 min)				Credits	Evaluation Scheme					Total Marks		
			Units	S.L.*	L	T		P	SLE	TA	CT	Proj.		SEE	PE
4	PH-SEC-304	Economics Paper XII Law & Economics	4	20 %	4	0	0	4	10	05	15	10	60	0	100
5	PH-SEC-305	Economics Paper XIII Behavioural Economics	4	20 %	4	0	0	4	10	05	15	10	60	0	100
6	PH-SEC-306	Economics Paper XIV Urban Economics	4	20 %	4	0	0	4	10	05	15	10	60	0	100
7	PH-SEC-307	Economics Paper XV Economics of Health & Education	4	20 %	4	0	0	4	10	05	15	10	60	0	100
SEMESTER IV															
1	PH-SEC-401	Economics Paper XVI Economics of Service	4	20 %	4	0	0	4	10	05	15	10	60	0	100
2	PH-SEC-402	Economics Paper XVII Economics of Climate Change & Resource Development	4	20 %	4	0	0	4	10	05	15	10	60	0	100
3	PH-SEC-403	Economics Paper XVIII Law & Economics II	4	20 %	4	0	0	4	10	05	15	10	60	0	100
4	PH-SEC-404	Economics Paper XIX Introduction to R Software & Statistical use of R Software	4	20 %	4	0	0	4	10	05	15	10	60	0	100
5	PH-SEC-405	Economics Paper XX DISSERTATION 4) Research Paper 50 marks 5) Presentation 30 marks 6) Viva voice 20 marks	4	20 %	4	0	0	4	10	05	15	10	60	0	100

*One to two lectures to be taken for CONTINUOUS self-learning evaluation

L: Lecture, T: Tutorials, P: Practical, Ct-Core Theory, CP-Core Practical, CT-Class Test, TA-Teacher Assessment, SLE : Self Learning Evaluation, Proj.- Project/Assignment, PE : Practical Evaluation, SEE: Semester end examination
 • Lecture Duration – 50 Minutes • One Credit = 15 Classroom teaching hours

Part 3: Detailed Scheme Theory

SEMESTER I

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-101	Microeconomics I	4	48

Title: Microeconomics I

Course Objective: The objective of this paper is to develop an understanding of the basic microeconomic theory that has applications in other areas of Economics. At the end of this course students are expected to be familiar with basic microeconomic theory and acquire analytical skills to analyse problems of economic policy. Examples and exercises would be for strengthening the understanding.

Course Outcomes

- Develop a nuanced understanding of consumer and firm behaviour along with general equilibrium theory.
- Provide students with the necessary theoretical and analytical tools to study problems of economic policy.

Units	Modules	No. of Lectures
1	Module I: Consumer Behavior Preference ordering, The feasible set, Consumption decision, Comparative statics: price and income effects, Slutsky equation, Measuring the benefits of price change, Utility maximization problem, Indirect utility function, Expenditure function.	12
2	Module II: Production, Cost and Supply Production function: properties and types, Cobb-Douglas, CES and Translog, Elasticity of substitution, Variations in scale, Variations in input proportions, Cost: Cost minimization: long run and short run, Cost function, Relation between long run and short run costs, Supply: Profit maximization and firm supply, Long run supply function, Profit function, Relationship between long and short run profit maximization	12
3	Module III: Theory of Competitive Markets Market demand and market supply curve, Short run market equilibrium, Stability of equilibrium: Walrasian and Marshallian approaches, Long run market equilibrium, Stability of long run equilibrium.	12
4	Module IV: General Equilibrium and Welfare Economics Walrasian general equilibrium of a competitive economy, Edgeworth exchange theory, Pareto criterion, First and Second theorems of welfare economics, Externalities and market failure.	12

Self-Learning Components (Unit Wise)

Module	Topic	Swayam Link
Module 1	Consumer Behavior By Prof. Srabanti Mukherjee IIT Kharagpur Prof. Deep Mukerjee, IIT Kanpur	https://onlinecourses.nptel.ac.in/noc22_mg47/preview https://nptel.ac.in/courses/110104093
Module 2	Production, Cost and Supply Prof. Vimal Kumar IIT Kanpur Prof. Deep Mukerjee, IIT Kanpur	https://onlinecourses.nptel.ac.in/noc21_hs52/preview https://nptel.ac.in/courses/110104093
Module 3	Theory of Competitive Markets Prof. Wasim Ahmad IIT Kanpur	https://onlinecourses.nptel.ac.in/noc22_hs67/preview
Module 4	General Equilibrium and Welfare Economics	https://www.youtube.com/watch?v=jnqJnDN0PRO

References:

1. Das, S.P. (2007): Microeconomics for Business, Sage, New Delhi.
2. Gravelle H. and Rees R. (2004): Microeconomics, 3rd Edition, Pearson Edition Ltd, New Delhi.
3. Jehle, G.A. and P.J. Reny (2006): Advanced Microeconomic Theory, 2nd Edition, Pearson Education, New Delhi.
4. Tandon, P. (2015): A Textbook of Microeconomic Theory, Sage, New Delhi.
5. Varian H (2000): Intermediate Microeconomics: A Modern Approach, 8th Edition, And W.W. Nortonand Company.
6. Varian, H.B. (1992): Microeconomic Analysis, 3rd Edition, W.W. Norton and Company.

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-102	Macroeconomics I	4	48

Title: Macroeconomics I

Course Objective: This paper is designed to provide in-depth knowledge on varied concepts of Macroeconomics. The contents of the paper throws light on a range of issues like national income, social accounting, consumption expenditure, investment analysis, inflation, trade cycle as well as money supply and demand for money.

Course Outcomes

- The learners can enhance their understanding on the concepts like national income and social accounting, consumption expenditure and investment analysis.
- Students acquire knowledge on issues like inflation, trade cycle as well as money supply and demand for money

Units	Modules	No. of Lectures
1	Module 1: National Income and Social Accounting National Income Accounting Concepts, Accounting identities, Inflation and price indices. Social accounting-Concepts, Features and types of social accounts, National income and Product accounts, Input-output accounting, Flow of funds account	12
2	Module 2: Consumption Expenditure and Investment Analysis Absolute income hypothesis; Relative income hypothesis; Permanent income hypothesis; Life-cycle hypothesis. Investment- Types of Investment- Determinants of Investment -Marginal efficiency of capital (MEC)-Supply price of capital (SP), Prospective yield of capital (PY)- FRB-MIT (Federal Reserve Bank and Massachusetts Institute of Technology).	12
3	Module 3: Inflation and Trade Cycles Theories of Inflation: Demand pull and Cost push, Keynesian Theory, Inflation and GDP, Trade cycles, Anti cyclical policy, Theories of Trade Cycles - Hicks, Schumpeter, Goodwin and Samuelson.	12
4	Module 4: Supply and Demand for Money Components of money supply; Measures of money supply: M1, M2, M3 and M4-Determinants of Money Supply- Classical approach, Cambridge approach, Keynesian approach, Liquidity preference theory, Portfolio balance Approach: Baumol and Tobin, Milton Friedman's Approach	12

Self-Learning components (Unit wise)

Topic	SLE Link

1. Permanent income hypothesis	https://youtu.be/IxdpzYyeB7wepgpaathshala
2. Modigliani's Life Cycle Hypothesis	https://youtu.be/-f9_Pjsmru8epgpaathshala
3. Investment, MEC	https://youtu.be/O6fjF6EtnRkepgpaathshala
4. Components and Measures of money supply	https://youtu.be/yvV7KhPJy7oepgpaathshala

References:

1. Dornbusch, Fischer, Stratz, Macroeconomics, (Revised Edition). Tata McGraw-Hill. New Delhi
2. Ahuja H. L. Macroeconomics Theory and Policy, S. Chand and Co. Ltd New Delhi.
3. Froyen R. T. Macroeconomics (7th Edition). Pearson Education. New Delhi
4. Mankiw, N. G. Macroeconomics, (Revised Edition), Worth Publications. New York.
5. Carlin, W and S David, Macroeconomics, Oxford University Press.
6. Errol D'Souza Macroeconomics, Pearson Education India-2009.

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-103	Development Economics	4	48

Title: Development Economics

Course Objective:

The objective of this paper is to integrate the developmental perspectives and theories to enable the students to understand the complexity of developing economies and the related economic challenges. The students get to critically reflect on the major economic ideas in development parlance.

Course Outcomes: To familiarize students with the developmental aspects of nations. To acquaint with different theories on growth and development.

Units	Modules	No. of Lectures
1	Module 1: Approaches to Development Economic growth and structural change, Human Development approach, Capabilities, entitlements and deprivation - Measurement of development - HDI, GDI, GEM etc.- Measurement of inequality and poverty, Role of market and state.	12
2	Module 2: Theories of Growth and Development The Harrod-Domar growth model and its application to LDCs, Endogenous growth models of Romer and Lucas-Human capital,	12

	Balanced growth (Nurkse), Unbalanced growth (Hirshman), Solow's model of economic growth, The process of cumulative causation (Myrdal).	
3	Module 3: Environment and Development Environmental Pollution, Material Balance Model, Causes of Environmental Degradation, Government Policies and Initiatives, Climate change, Global Warming and Energy Crisis, Protection of Forests: Forest Policy in India, Impact of Human and development Activities on Forests, Constitutional Provisions regarding forests.	12
4	Module 4: Population Growth and Development Population; basic concepts, the theory of demographic transition, Population Pyramids: high fluctuating, early expanding, late expanding, low fluctuating and natural decrease. Migration; Rural-Rural and Rural-Urban migrations, Cross country migration, Reverse migration, circular migration, The Harris - Todaro Model, Problems of urbanization. Employment markets; Formal sector and informal sector employments and wage rates	12

Self-Learning components (Unit wise)

Module	Topic	Swayam Link
1	Human Development	https://youtu.be/PxIWLwnDGJA
2	Solow model	https://youtu.be/YAZwuGjixmM
3	Climate change and Global warming	https://youtu.be/ktgbsHXAIU0
4	Harris-Todaro Model	https://youtu.be/j2PJSqxCh_c

References:

1. Ray, D., Development Economics, OUP, New Delhi, 2004
2. Thirlwall A.P (2018) Growth and Development (8th Edition), 2018
3. Bardhan, P. and C. Udry, Development Microeconomics, OUP, Oxford, 1999
4. Hayami, Y. Development Economics: From the Poverty to the Wealth of Nations, OUP, 2001
5. Basu, K., Analytical Development Economics, OUP, New Delhi, 1998
6. Human Development Reports (Several Years)
7. Sen, A. Commodities and Capabilities, OUP, New Delhi, 1999
8. V.S. Ganesamurthy: Environmental Economics in India, New Century Publications, New Delhi, 2009.
9. Centre for Science and Environment: Down to Earth Magazine, Several years.

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-104	Industrial Economics	4	48

Title: Industrial Economics

Course Objectives

The objective of this paper is to familiarise students to the theory of market and firms, their behaviour and determinants. It discusses the impact of advertising and innovation too. It covers topics like investment decisions, industrial finance and location theories. Finally, the paper deals with various aspects of Indian industrial growth.

Course Outcomes

- Familiarity with the concept and field of Industrial Economics
- Better understanding of firm behaviour and market performance
- Improved understanding of Investment and finance decisions of firms and industries.

Units	Modules	No. of Lectures
1	Module 1: Industrial Economics and Theory of Firm Structure-Conduct-Performance, Effects of Monopoly Power, Dominant Firm: Behaviour, Strategy and Public Policy, Oligopoly- Collusion: Agreement and Adherence, Determinants of Firm Structure: Mergers- Horizontal and Vertical-Conglomerate Integration	12
2	Module 2: Technical Change Market Concentration: Measures of Market Concentration. Advertising: Optimal Advertising, Advertising and Market Structure- Cost of Advertising. Invention and Innovation: Process and Product Innovation- Effects of Innovation on Welfare and Employment- Adoption and Diffusion of Innovation	12
3	Module 3: Investment Decisions, Industrial Finance and Location Theory Investment Appraisal: Nature of Investment Decisions- Net Present Value Method- Internal Rate of Return. Cost of Capital: Determining Components of Cost of Capital- Capital Asset Pricing Model (CAPM)- Weighted Average Cost of Capital (WACC). Capital Structure: Optimum Capital Structure- Modigliani-Miller Hypothesis, Industrial Finance: Need, Types, Sources of Finance, Theories of industrial Location: Weber and Sargent Florence	12
4	Module 4: Industrial Growth in India Industrial Growth: Trends in Industrial Growth in India-MSMEs: Definition-Role-Policy-Issues and Performance. Public and Private Enterprises in India: Performance and Constraints. Competitiveness of Indian Industries: Competition Policy, Industry 4.0: Future of Work	12

Self-Learning components (Unit wise)

Module	Topic	Links and References
1	MSME: Policies and Performance	https://msme.gov.in
2	Trends of Industrial Growth in India	Ahluwalia I. J., Industrial Growth in India- Stagnation since the mid-sixties, Oxford University Press, Delhi, 1985 and Mookherjee Dilip (eds.), Indian Industry-Policies and Performance, Oxford University Press, Delhi, 1998
3	Competition Act 2002	https://www.cci.gov.in/sites/default/files/cci_pdf/competitionact2012.pdf

References:

- 1 Ahluwalia I. J.-Industrial Growth In India – Stagnation Since the Mid Sixties- Oxford University Press, Delhi, 1985.
2. Hay J. and Morris D. J. – Industrial Economics – Theory and Evidence, Oxford University Press (Latest Edition)
3. Martin Stephen, Industrial Economics – Economic Analysis and Public Policy, Macmillan Publishing Company, New York, 1989
4. Mookherjee Dilip (Eds), Indian Industry – Policies and Performance, Oxford University Press, Delhi, 1998.
5. Pandey I. M. –Financial Management, Vikas Pub. House Pvt. Ltd., New Delhi, 2000.
6. Paul R. Fergusson: Industrial Policy Issues and Perspectives, Macmillan Education, 1988
6. Mohanty Binod (eds.) –Economic Development Perspectives, Vol. 3, Public Enterprises and Performance – Common Wealth Publication New Delhi, 1998 Publications, New Delhi, 2009.

SEMESTER II

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-201	Microeconomics II	4	48

Course Objective: The objective of this course is to acquaint students with different approaches to analysing strategic behavior of individuals under asymmetric and incomplete information. Case studies and applications would be used to expound strategic behavior.

Course Outcomes

- Create an understanding of strategic behavior under oligopoly
- Provide students with the necessary theoretical and conceptual underpinnings to real world concepts and issues using illustrations and case studies.

Title: Microeconomics II

Units	Modules	No. of Lectures
1	Module I: Introduction to Game Theory Introduction to Game Theory, Normal Form and Extensive Form of a game, Dominant Strategy Equilibrium, Nash Equilibrium in Pure and Mixed strategies, Prisoner's Dilemma, Dynamic Games, Sub game Perfection.	12
2	Module II: Oligopoly Oligopoly and its features, The Cournot model, The Bertrand Model, The Stackelberg model, Oligopoly in repeated games and tacit collusion, Comparison with monopoly, Limit pricing and Entry deterrence in monopoly	12
3	Module III: Economics of Information Principal-Agent models, Moral Hazard and Adverse Selection, The market for lemons, optimal contracts under asymmetric information, Signalling and Screening	12
4	Module IV: Case Studies and Applications Case studies and Applications: Price competition for homogenous and differentiated products, Quantity/Production capacity competition, Leadership and Cartels, Insurance and Debt contracts, Advertising and Brand reputation.	12

Self-Learning Components (Unit Wise)

Module	Topic	Swayam Link
Module 1	Introduction to Game Theory Game Theory By K.S. Mallikarjuna Rao IIT Bombay	https://onlinecourses.nptel.ac.in/noc19_ge32/preview
Module 2	Oligopoly	https://www.youtube.com/watch?v=duwaemWZetI
Module 3	Economics of Information Adverse Selection and Market Signalling Prof. Atman Shah	https://www.youtube.com/watch?v=duwaemWZetI
Module 4	Advertising and Brand reputation.	https://nptel.ac.in/courses/110101149

References:

1. Das, Satya P. (2007): Microeconomics for Business, Sage Publications India Pvt Ltd., New Delhi.
2. Gibbons R.A. (1992): A Primer in Game Theory, Harvester-Wheatsheaf.

3. Gravelle, H. and Rees, R. (2004): Microeconomics, 3rd Edition, Pearson Edition Limited, New Delhi.
4. Jehle, G.A. and P.J. Reny(2006): Advanced Microeconomic Theory, 2nd Edition, Pearson Education, New Delhi.
5. Png, Ivan (2012): Managerial Economics, 4th Edition, Routledge, New York.
6. Varian H. (2000): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company.

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-202	Macroeconomics II	4	48

Title: Macroeconomics II

Course Objectives

The objective of this paper is to provide a deeper understanding of macroeconomic concepts. The paper highlights pricing mechanism under imperfect market structures, rigidities and real business cycle theory. Keynesian Macroeconomics is introduced through topics like rules, discretion and inconsistencies in policy decisions as well as traditional and non conventional policy making.

Course Outcomes

- Familiarity of students with latest developments in macroeconomics
- Better understanding of the macroeconomic policy making.
- Understanding of the link between macroeconomic theories and international open Economy

Units	Modules	No. of Lectures
1	Module 1: Prices under imperfect competition Imperfectly Flexible Prices, Price-setting under imperfect competition. Menu costs, real rigidity and neutrality, Quadratic price adjustments.	12
2	Module 2: Theories of Business Cycles Real Business-Cycle Theory, Introduction: Some Facts about Economic Fluctuations, An Overview of Business-Cycle Research, A Baseline Real-Business-Cycle Model Household Behavior, Empirical Application: Money and Output, Assessing the Baseline Real-Business-Cycle Model Problems.	12
3	Module 3: New Keynesian Economics New Keynesian Economics, Disequilibrium, multiple equilibria, Hysteresis Reconstructing the Keynesian multiplier, The New Keynesian model of inflation	12
4	Module 4: Macroeconomics Policy Issues Macroeconomic Policy, Rules versus Discretion, Credibility & Reputation, Dynamic Inconsistency Banks, Financial Intermediaries and Unconventional Monetary Policy Inflation Targeting and Exchange Rates.	12

Self-Learning components (Unit wise)

Unit	Topic	SWAYAM Link
1	Menu Costs	https://scholar.harvard.edu/files/mankiw/files/small_menu_costs.pdf
3	Multiple equilibria, Hysteresis Reconstructing the Keynesian multiplier	Wendy Carlin & David Soskice, 2006, Macroeconomics- Imperfections, Institutions and Policies- Oxford University Press (2006).
4	Rules versus Discretion	Dornbusch, Fischer and Startz, 2012, Macroeconomics, 10 th Editions, McGraw Hill Education Pvt. Ltd. New Delhi
4	Macroeconomic Policy Macro Economics By Dr. Manasi Kurtkoti Savitribai Phule Pune University, Pune	https://onlinecourses.swayam2.ac.in/cec20_hs37/preview

References:

1. Dornbusch, Fischer and Startz, 2012, Macroeconomics, 10th Editions, McGraw Hill Education Pvt. Ltd. New Delhi.
2. Heijdra, Ben J. and Frederick Van Der Ploeg. 2002, Foundations of Modern Macroeconomics. Oxford University Press, Oxford.
3. Romer, David, 2012, Advanced Macroeconomics, McGraw-Hill. Fourth Edition.
4. Wickens, Michael, 2011, Macroeconomic Theory and the Dynamic General Equilibrium Approach. Princeton University Press.
5. Wendy Carlin & David Soskice, 2006, Macroeconomics- Imperfections, Institutions and Policies- Oxford University Press (2006).
6. Olivier Blanchard – Macroeconomics, Pearson, Seventh Edition (2017)

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-203	Indian Economic Policy	6	48

Title: Indian Economic Policy

Course Objective: This course presents an analytical framework within which the Indian economic policy is formulated and implemented. Indian economic policy influences the economic environment and in turn is conditioned by the environment. We would present and integrated approach to different aspects of policy making. In the background of Indian economic development during the last six decades, trade Policy and at the sectoral level,

Agricultural Policy, Industrial Policy, and Policies relating to services sector have been discussed. Monitoring and implementation of economic policies have also been examined.

Units	Modules	No. of Lectures
1	Module 1: Characteristics of the Indian Economy Features and Characteristics of the Indian Economy, Trends and Structure, Demographic features, National income, Growth and Structural Change in the Indian Economy, Poverty, Inequality	12
2	Module 2: Development and Planning Strategies in India Evolution of planning State Planning and Markets: Policy Choices as visualised in five-year plans, Economic Reforms in India, Major Developments in Post Economic Reforms Period Role of Planning in Market Economy, Redefining Role of State NITI AYOJ: Role and Functions	12
3	Module 3: Sectoral Developments and Sector Specific Policies Issues and Concerns of Indian Agriculture, Agricultural Policy of India, Industrial Development in India: An Overview, Industrial Policy and FDI in India Services Sector, Policies Relating to Services Sector	12
4	Module 4: External Sector and Foreign Trade Policies Foreign Trade and Balance of Payments, Salient features of India's foreign trade Foreign Capital, Trade Policy, Composition, Direction and Organisation of trade, Recent changes in trade, Tariff policy, Bilateral Trade Agreements and their implications	12

Self-Learning components (Unit wise)

Module	Topic	Self-Learning Link/References
Module 1	National income	https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000023MA/P001405/M016057/ET/1465207089Module29Text.pdf
Module 2	NITI AYOJ: Role and Functions	https://www.niti.gov.in/content/functions
Module 3	FDI in India	https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000438BE/P000728/M018756/ET/1515494552BSE_P9_M26Etext.pdf
Module 4	Balance of Payments	https://www.youtube.com/watch?v=ZK8bXGkYy4A

References:

1. Agarawal A.N. (2006): Indian Economy: Problems of Development and Planning , A Division of New Age International (P): Limited, New Delhi.
2. Bawa, R.S. and P.S. Raikhy (Ed.) (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
3. Brahmananda, PR. And V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy: Inter-state Perspectives, Book well, Delhi.
4. Dutt R and KPM Sundharam (2002): Indian Economy: S. Chand New Delhi.

5. Misra S.K. and V.K. Puri, (2020): Indian Economy, Himalaya, Publishing house, Mumbai.
6. Uma Kapila (2019): Indian Economy-Since Independence-17th Edition, Academic Foundation
7. IGNOU MEC-105 Reference Material – Indian Economic Policy

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-204	International Trade: Theory and Policy	4	48

Title: International Trade: Theory and Policy

Course Objective: This paper aims at providing a theoretical exposition of bases, effect and restrictions on free flow of International Trade with empirical evidence.

Course Outcomes: Enables to understand the flow of international trade. Awareness on varied trade policies.

Units	Modules	No. of Lectures
1	Module 1: Classical and Neo-Classical Trade Theories Absolute and Comparative Advantage of Trade; Opportunity Cost Approach; Reciprocal Demand and Offer Curves; The Heckscher – Ohlin (H-O) Theory, Factor Price Equalization Theorem, Leontief’s paradox, Rybczynski Theorem, Product cycle theory and Technological gap theory.	12
2	Module 2: Modern Trade Theories Concept of intra industry trade, imperfect competition and trade: Krugman model, Favley model, Neo Chamberlains model; Oligopolistic models – Brander- Krugman model, reciprocal dumping model, Iceberg model, Gravity equation.	12
3	Module 3: Trade Policy Instruments of Trade Policy; Tariffs and Welfare, Optimum Tariff, Tariff and Real Rewards to Factors of Production, The Stolper-Samuelson Theorem, Metzler’s Paradox, Theory of Customs Union, Quotas and Export Subsidies, Gains from Trade.	12
4	Module 4: Contemporary Regional Trading and WTO Regionalism and Multilateralism in the context of WTO, Critical Evaluation of the Role played by WTO, Overview of regional trading arrangement: SAARC, ASEAN, European Union, Brexit, UNCTAD; International financial institutions: IMF, World Bank, Asian Development Bank.	12

Self-Learning Components (Unit Wise)

Module	Topic	Swayam Link
1	Absolute and Comparative Advantage of Trade	https://youtu.be/bAz85dAd1xo
2	Imperfect competition and Trade	https://youtube.com/watch?v=Xm4nxJ_LZdY&feature=share
3	Optimum tariff	https://youtube.com/watch?v=J_va1s8BOac&feature=share
4	SAARC	https://youtu.be/uSesZnYqtX8

References:

1. Krugman P. R. and M. Obstfeld, International Economics-Theory and Policy, Addison-Wesley, Delhi, 2000
2. Salvatore D., International Economics, John Wiley and Sons, Singapore, 2002
3. Södersten Bo and R. Geoffrey, International Economics, Macmillan, London, 1994
4. Feenstra R. C., Advanced International Trade- Theory and Evidence, Princeton University Press, Princeton, 2004
5. Grimwade Nigel, International Trade, (Second Edition), Routledge, London

SEMESTER III (Choose 5 out of 7 papers)

Syllabus Information

Sr.No	Course Code	Title	Credits	Lectures
1	PH-SEC-301	Basic Econometrics	4	48

Title: Basic Econometrics

The course is designed to introduce students to elementary econometric methods and their applications. The teaching will emphasize a combination of theory and empirical applications.

Units	Module	Number of Lectures
1	Module 1: Linear Regression Model Two variable model: - estimation of parameters, properties of p estimators, hypothesis testing and model validation. Extension to multiple linear regression model	12
2	Module 2: Failure of classical assumptions Heteroskedasticity, autocorrelation and multicollinearity: implications, corrective measures, Outliers: -implication and detection, non-normality of errors and bootstrapping of confidence intervals	12
3	Module 3: Systems of equations Endogeneity and specification issues, Structural form and reduced form models, identification, instrumental variables and two stage least squares	12
4	Module 4: Introduction to time series Stationary and non-stationary time series, spurious regression, tests of stationarity, optimal forecasts and methods of forecast evaluation, introduction to ARIMA models	12

Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Linear Regression Model Introduction to Econometrics By Prof. Sabuj Kumar Mandal IIT Madras	https://onlinecourses.nptel.ac.in/noc21_hs01/preview
Module 2	Failure of classical assumptions Introduction to	https://onlinecourses.nptel.ac.in/noc21_hs01/preview

	Econometrics By Prof. Sabuj Kumar Mandal IIT Madras	
Module 3	Systems of equations Econometric Modelling by Dr. Rudra P. Pradhan, Department of Management, IIT Kharagpur.	https://www.youtube.com/watch?v=OwLkoPccBM4
Module 4	Introduction to time series Applied Time Series Analysis, IIT Madras by Dr. Arun K. Tangirala	https://nptel.ac.in/courses/103106123

References:

1. Wooldridge, J., Introductory Econometrics: A Modern Approach, Cengage Learning, 2009
2. Kennedy, P., A Guide to Econometrics, MIT Press, 2005

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-SEC-302	Mathematics for Economists	4	48

Title: Mathematics for Economists

The orientation follows Avinash Dixit's classic on the subject. Thus, working backwards from the requirements of dynamic optimization, static optimization is covered and, over the first two modules, the mathematical background required to appreciate the last two modules. The texts are illustrative and any proper subset may be used. The expectation is that the instructor will sketch/prove theorems depending on the level of the class and focus on problems drawn from the microeconomics and macroeconomics courses.

Units	Module	Number of Lectures
1	Module I Elements of set theory: \mathbb{R} and \mathbb{R}^n ; sequences & limits; open & closed sets; compact sets Functions: continuity; linear functions; concave and quasi concave functions Vectors and matrices: the determinant; quadratic forms	12

	Module 2: The derivative: partial derivatives; implicit differentiation; total derivatives Unconstrained and constrained optimization; concave programming Differential Equations: stability	12
	Module 3: Static Optimization Integration: definite and indefinite integrals; integration by parts The Kuhn-Tucker theorem	12
	Module 4: Dynamic Optimization: Calculus of Variations The Maximum Principle Dynamic Programming	12

Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Background I	
Module 2	Background II	
Module 3	Static Optimization	
Module 4	Dynamic Optimization	

References:

1. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw-Hill,2005
2. Elements of Dynamic Optimization, McGraw-Hill,1992
3. Simon, C.P. and B. Lawrence, Mathematics for Economists, Viva Books Pvt Ltd,1994
4. Sydsaeter, K., P. Hammond, and S. Arne, Essential Mathematics for Economic Analysis, Pearson,2012

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-SEC-303	Financial Economics	4	48

Title: Financial Economics

The objective of the course is to introduce students over 48 lectures to the major topics in the subject such as mean-variance portfolio theory, the capital asset pricing model, efficient markets hypothesis, pricing of bonds as also to different systems of financial markets.

Units	MODULES	Number of Lectures
1	Module 1: Capital Asset Pricing Model Mean-Variance Criterion - Measuring Risk and Return for a Single Asset and for a Portfolio - Portfolio Diversification - Portfolio Efficiency Frontier, Capital Market Line, Market Portfolio, Security Market Line - Extensions of the CAPM - Performance Measures - Arbitrage Pricing Theory	12

2	Module 2: Valuation Models and Bubbles: Rational Valuation Formula - Consumption CAPM - Efficient Markets Hypothesis - Euler Equation and the Rational Valuation Formula - Intrinsic Bubbles - Noise Traders and Herding - Noise Traders and Rational Valuation Formula - Noise Traders and Contagion.	12
3	Module 3: Bond Markets: Measures of yield - Pricing of Bonds - Measures of Price Sensitivity: price value of a basis point, duration and convexity - Term Structure Models.	12
4	Module 4: Systems of Financial Markets: Spot Markets – Contingent Claims Markets – Arrow Securities – Ordinary Securities Markets – Incomplete Markets –Financial Markets and Financial Intermediaries.	12

Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Capital Asset Pricing Model	
Module 2	Valuation Models and Bubbles	
Module 3	Bond Markets	
Module 4	Systems of Financial Markets	

References:

1. Cuthbertson, K., Quantitative Financial Economics: Stocks, Bonds and Foreign Exchange, John Wiley and Sons, USA, 1996. (Modules 1 and2)
2. Eichberger J. and I.R. Harper, Financial Economics, Oxford University Press, New York, 1997. (Module4)
3. Fabozzi, F.J., Bond Markets: Analysis and Strategies, Eighth Edition, Prentice Hall, New Jersey, 2012. (Module3)
4. Tuckman, B. and Serrat, A., Fixed Income Securities: Tools for Today's Markets, Second Edition, John Wiley and Sons, New Jersey, 2012. (Module3)
5. Copeland T.E., J. F. Weston and K. Shastri, Financial Theory and Corporate Policy, Fourth Edition, Pearson Addison-Wesley USA, 2005. (Modules 1 and2)
6. Fama, E. F. Efficient Capital Markets: A Review of Theory and Empirical Work, Journal of Finance, vol.25, no.2, pp. 383-423, 1970. (Module 2)

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-TEC-304	Law and Economics I	4	48

LAW AND ECONOMICS - I

PREAMBLE: The hallmark of the new interdisciplinary field of law and economics is the application of the theories and empirical methods of economics to the legal system across the board, for example, the common law fields such as torts, contracts, property, etc. In fact, Ronald Coase's paper on "The Problem of Social Cost" (1960), Guido Calabresi's article on "Some Thoughts on Risk Distribution and the New Law" (1961), and the work of Alchian on "Some Economics of Property Rights" (1961) had applied the methods of economics to some of the areas of law. One endeavor, which is gaining momentum and respectability, is the application of economic analysis to legal problems. The works of Richard Posner's book on Economic Analysis of Law (1972) widely contributed to the introduction of the Law and Economics course. In addition, the economic analysis of law has extended to non - market behaviour, particularly influenced by the theoretical framework of Gary Becker on the economic analysis of crime, racial discrimination, and marriage and divorce. Economics provides a scientific theory to predict the effects of legal sanctions on behavior. In addition to a scientific theory of behaviour, economics provides a useful normative standard for evaluating law and policy. Laws are not just arcane technical arguments. They are instruments for achieving important social goals. In order to know the effects of laws on those goals, judges and other law-makers must have a method of evaluating effects of laws on important social values. Economics predicts the effects of policies on efficiency and distribution. Economic analysis often takes for granted such legal institutions as property and contract, which dramatically affect the economy. For instance, the absence of secure property and reliable contracts paralyses the economies of some nations in third world. Economist, besides substance, can learn techniques from lawyers. For example, economists frequently support the merits of voluntary exchange, but they do not have a detailed account of what it means for exchange to be voluntary. In case of contract law, it has a complex and well-articulated theory of violation. So the economists, to find their models closer to reality, will have to listen to what the law has to teach them. The benefits of interdisciplinary study can be had only when lawyers learn economics and economists learn something about law. Module

1 is an introduction to the concepts of economics as well as law. Modules 2 to 6 will focus on economic analysis of property law, contract law, tort law, and criminal law. Finally, Module 7 will put emphasis on competition law. Overall the course deals with the explanation of established links between the subjects of Economics and Law, and development of efficient rules and regulations.

SR. NO.	MODULE	NO. OF LECTURES
1	Module 1: Introduction to Law and Economics Economic Analysis of Law: An Introduction Why do economists need to be concerned about law? - Relationship between law and economics Economic Concepts and their relevance to Law Legal Concepts - The Common Law and the Civil Law Traditions, Introduction to Judicial System in India, Economic Approach to Legal Rules, Methodological Aspects of Legal Rules, Efficiency, Justice and the inherent rationality of Private Law, Development of efficient Rules: Selected Cases	12
2	Module 2:Economic Analysis of Contract Law Introduction - Economic Theory of Contract - Perfect Contracts, Imperfect Contracts Economics of Remedies for Breach of Contract - Expected Damages, Opportunity Cost, Reliance Damages, Restitution, Specific Performance Differences between Contracts and Torts - The Foreseeability Rule in Contract Law, Pure Economic loss in Torts	
3	Module 3:Economic Analysis of Tort Law Introduction, Economic Theory of Torts Law - Accident Costs and their minimization, Liability Rules, Negligence, Contributory Negligence, Comparative Negligence, Strict Liability, Economics of Tort Liability - Liability v. Regulation, Causation in Torts, Joint and Multiple Liability, Product Liability: Producers' Responsibility, and Consumer Protection through Consumer Courts, Environmental Liability, Immaterial Damages: Pain and Suffering	
4	Module 4:Economic Analysis of Property Law Introduction, An Economic Theory of Property, Economics of Property Law - Market strategies, Non- market strategies, Allocation of Property Rights - First	

	come first served, Good faith purchase, Title to Land, Establishment of entitlements - Property Rule, Liability Rule, Inalienability Rule	
5	Module 5: The Coase Theorem Externalities , Transaction Costs, Efficiency Hypothesis & Invariance Hypothesis.	
6	Module 6: Economic Analysis of Criminal Law Introduction, Principal Types of Crime, Optimal Criminal Sanctions: Economics of Crime and Punishment, Criminal Intent, The Defence of Necessity, The Economics of Organised Crime	
7	Module 7: Economic Analysis of Competition Law Introduction, Economic Theory of Competition Law - Workable Competition: Structure- Conduct Performance, Competition as Dynamic Process, Reappraisal of Price Theory - Vertical Restraints: Vertical Price Fixing, Predatory Pricing: Lowering Prices, Control of Concentration: Collusion, Transaction Cost Approach, Theory of Contestable Markets, Applications to USA and EC Competition Policy	
8	Module 8: Competition Policy in India Monopolies and Restrictive Trade Practices Act, and Competition Policy Report, Divestment of Public Sector Units and Deregulation, Regulated Competitions and Regulatory Authorities (Power, Telecom, Insurance, Banking)	

Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Relationship between law and economics Economic Concepts	https://indianlegalsolution.com/importance-of-economics-in-law/
Module 2	Economic Analysis of Contract Law	https://www.edx.org/course/state-law-and-the-economy-i
Module 3	Economic Analysis of Tort Law	https://www.youtube.com/watch?v=oRfu-WCoofc
Module 4	Economic Analysis of Property Law	https://www.qmul.ac.uk/postgraduate/taught/coursefinder/courses/law-and-economics-llm/
Module 5	Coase Theorem Externalities	https://www.coursera.org/lecture/microeconomics-part2/4-1-5-the-coase-theorem-KsY17 https://www.youtube.com/watch?v=h2O22KtjSck
Module 6	Economic Analysis of Criminal Law	
Module 7	Economic Analysis	https://onlinecourses.swayam2.ac.in/arp19_ap57/preview

	of Competition Law By Prof. Amita Dhanda and Prof Vasanthi Nimushakavi Nalsar University of Law	
Module 8	Competition Policy in India By Prof. (Dr.) G. B. Reddy The English and Foreign Languages University (Host University)	https://onlinecourses.swayam2.ac.in/cec20_ge04/preview

BASIC READING LIST

Posner Richard A – Economic Analysis of Law (7th Edition 2007) ·
 Cooter Robert & Ulen Thomas- Law and Economics (5th Edition 2007) ·
 Shavel Steven – Foundation of Economic Analysis of Law (2004) ·
 Harison Jeffrey L. & Theeuwes Jules - Law and Economics (2008) ·
 Polinsky Mitchell A.- An Introduction to Law and Economics (2003) ·
 Friedman David D. – Law’s Order (2000) ·
 Wittman Donald A – Economic Analysis of Law- Selected Reading (2003) ·
 Micali Thomas J.- The Economic Approach to Law (2009) ·
 Hirsch Werner Z. - Law and Economics (1999) ·
 Landes Williams, Posner Richard - The Economic Structure of Intellectual Property Laws (2003). ·
 Mercurio Nicholas, Medema Steven G. – Economics & the Law- Second Edition (2006) ·
 Baird, Gentner & Picker – Game Theory & the Law (1994)

Further Readings

Bouckaert, B. & De Geest, G., Encyclopedia of Law and Economics · Burrows, Paul & Veljanovski, G. C., The Economic Approach to Law, London, Butterworths, 1981. · Calabresi, G. The Costs of Accidents, Yale University Press, 1970. · Divan, S. & Rosencronz, A. Environmental Law and Policy in India, Oxford University Press, New Delhi, 2001, 2nd ed. · Laffont, J. J. & Mass., Tirole, J. A Theory of Incentives in Procurement and Regulation, Cambridge/1993. · Munzer, S. R., A Theory of Property, Cambridge University Press, 1990. · Newman, P., Palgrave Dictionary of Economics and the Law. · Schmidh, P., An Economic Analysis of Crime and Justice, Academic Press, Orlando, 1984. · Williamson, O.E., The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting, The Free Press, New York, 1985. Articles: Alessi De Louis & Staaf, R. J., "Subjective Value in Contract Law", Journal of International and Theoretical Economics, Vol. 145, 1989, pp. 561- 577. Bebachuk, L. A. & Shavell, S., "Information and the Scope of liability for Breach of Contract: The Rule of Hadley vs. Baxendale", Journal of Law, Economic Organisation, 1991, pp. 284-312. Bradley, Fischel, " Efficient Capital Market Theory, the Market for Corporate Control and the Regulation of Cash Tender Offers" in: Posner/ Scott, Economics of Corporation Law and Securities Regulation, 1980, pp.211- 214. Calabresi G. & Malamed, A., "Property Rules, Liability Rules and Inalienability: One View of the Cathedral", 85, Harvard Law Review,

1972, p. 1089. Clark, J. M., "Toward a Concept of Workable Competition", *American Economic Review*, Vol. 30, 1940, pp. 241- 256. Coase, Ronald H., "The Problems of Social Cost", *The Journal of Law & Economics*, Vol. 3, No. 1, October 1960, pp. 1- 44. Coffee, J. C., "The Mandatory/ Enabling Balance in Corporate Law: An Essay on the Judicial Role", *Columbia Law Review*, Vol. 89, 1989, pp.1618-1691.

Easterbrook, H. F. &Fischel, R. D., "Limited Liability and the Corporation", *University of Chicago Law Review*, Vol. 52, No.1, 1985, pp. 89- 117. Gary Becker, S. "Crime and Punishment: An Economic Approach", *Journal of Political Economy*, Vol. 76, 1968. · Murali Prasad Panta, "The relative efficiency of Liability vs. Regulation in providing incentives to the tortfeasor" *Journal of the Indian Law Institute*, 41, (3&4), pp.405-428, 1999. · Niskanen, W. A. "Bureaucrats and Politicians", *Journal of Law and Economics*, Vol. 18, 1975, pp. 617- 641. · The design of Contract and Remedies for Breach, *The Quarterly Journal of Economics*, 99, 1984, pp.120. · Wadhwa, D. C., "Guaranteeing Title to Land- A Preliminary Study", *Economic and Political Weekly*, October 14, 1989, pp. 2323- 2334. Additional Reading List. · Alchian, A. A. & "Production, Information Costs, and Economic Organisation", Demsetz, H. *American Economic Review*, Vol. 62, 1972, pp. 777- 795. · Ayres, I. &Gertner, R., "Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules", *The Yale Law Journal*, 1989, pp. 101- 107. · Calabresi, G. &Klevorick, K. A., "Four Tests for Liability in Torts", *Journal of Legal Studies*, Vol. 14, No. 3, December 1985, pp. 585- 627. · Calfee, E. John &Craswell, R., "Market Failure and the Economic Case for a Mandatory Disclosure System", *Virginia Law Review*, Vol. 70, 1984, pp. 717- 753. · Cooter, R., "Unity in Tort, Contract and Property: The Model of Precaution", *California Law Review*, 73(1), 1985, pp. 1-51. · Demsetz, H., "When Does the Rule of Liability Matter?", *Journal of Legal Studies*, Vol. 1, No. 1, 1972, pp. 13- 28. · Dixit, A., "The Role of Investment in Entry Deterrence", *Economic Journal*, Vol. 95, 1981, pp. 95- 106. · "The Corporate Contract", *Columbia Law Review*, Vol. 89, 1989, pp. 1416- 1448. · "Mandatory Disclosure and the Protection of Investors", *Virginia Law Review*, Vol. 70, 1984, pp. 717- 753. · Fama, E. F. "Agency Problems and the Theory of the Firm", *Journal of Political Economy*, Vol. 88, 1980, pp. 288- 306. · Friedman, D., "What is 'Fair Compensation' for Death or Injury?", *International Review of Law and Economics*, Vol. 2, No. 1, June 1982, pp. 81- 93. · Hansmann, H., *The Economics and Ethics of Markets for Human Organs*, Yale Law School Working Paper, 1988. · Jensen, M. C. & Meckling, W. H., "The Theory of Firm, Managerial Behaviour, Agency Costs, and Ownership Structure", *Journal of Financial Economics*, Vol. 3, 1976, pp. 305- 360.

Kennedy, D. "Cost-Benefit Analysis of Entitlement Problems: A Critique of the Externality Concept", *Stanford Law Review*, 33, 1981, 387, 393-400. · Machlup, F., "Characteristics and Types of Price Discrimination", in *Business Concentration and Price Policy*, Princeton University Press, Princeton, 1975, pp. 397-343. · Nelson, P. "Advertising as Information", *Journal of Political Economy*, 1974, pp. 729-754. · Peltzman, S., "Toward a More General Theory of Regulation", Vol. 19, 1976, pp. 211-240. · Philips, L. & Moras, I. M., "The AKZO Decision: A Case of Predatory Pricing?", *Journal of Industrial Economics*, Vol. 41, 1993, pp. 315 - 321. · Posner, A. Richerd, "The Chicago School of Antitrust Analysis", *University of Pennsylvania Law Review*, Vol. 127, 1979, pp. 925- 952. · "A Theory of Negligence", *Journal of Legal Studies*, Vol. 1, No. 1, 1972, pp. 29- 96. · "An Economic Theory of the Criminal Law", *Columbia Law Review*, 1985. · Rose-Akermann,S., "The Economic Analysis of Public Law", *European Journal of Law and Economics*, Vol. 1, 1994, pp. 53- 70. · Sen Amartya, "The Possibility of Social Choice", *American Economic Review*, Vol.89 (3), 1999, pp. 349- 378. · Shavell, Steven "A Model of the Optimal Use of Liability and Safety Regulation", *Rand Journal of Economics*, Vol. 15, No. 2, summer 1984, pp. 271- 280. · "Strict Liability versus Negligence", *Journal of Legal Studies*, Vol. 9, No. 1, January 1980,

pp. 1- 25. · “An Analysis of Causation and the Scope of Liability in the Law of Torts”, Journal of Legal Studies, Vol. 9, No. 3, June 1980, pp. 463- 516. · "Criminal Law and the Optimal Use of Non-monetary Sanctions as a Deterrent, Columbia Law Review, Vol. 85, 1985. · Stigler, J. George, “The Economics of Information”, Journal of Political Economy, Vol. 69, No. 3, June 1961, pp. 213- 225. · "The Theory of Economic Regulation", Bell Journal of Economics and Management Science, Vol. 2 (1), 1971, pp. 1- 21. · Wittman, Donald, “Prior Regulation Versus Post Liability: The Choice Between Input and Output Monitoring”, Journal of Legal Studies, Vol. 6, No. 1, pp. 193-211. · Wright, W. Richard, “Causation in Tort Law”, California Law Review, Vol. 73, No. 6, 1985, pp. 1735- 1828.

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-TEC-305	Behavioural Economics	4	48

Syllabus Information

BEHAVIOURAL ECONOMICS Objectives This course introduces the concepts of behavioural economics and their importance in economic decision-making in case of risk, uncertainty and strategic interactions. It particularly tries to explain economic choices which deviate from predictions of neo-classical economics. It also attempts to incorporate insights from sociology, institutions, evolutionary psychology to understand human behaviour and offer directives for better developmental outcomes. It also discusses standard research methods of the subject viz. laboratory and field experiments to understand their contribution to the advancement of the subject.

SR. NO.	MODULE	NO. OF LECTURES
1	Module 1: Introduction: decision-making theories Neo-classical economics – rationality assumption, optimization Origin of Behavioural economics - Bounded Rationality, Rationality in Psychology and Economics by H. Simon Dual System theory, Prospect theory	
2	Module 2: Decision-making under risk and uncertainty Heuristics and Biases programme- Representativeness, Availability, Anchoring and adjustment, mental accounting Biases: Overconfidence, Confirmation bias, Framing, Status Quo Bias, Endowment Bias, Self-Control Bias Fallacies: conjunction and disjunction fallacies, gambler’s fallacies	

3	Module 3: Inter-temporal choices The discounted utility model, exponential discounting Hyperbolic discounting	
4	Module 4: Strategic interactions Fairness, trust, cooperation, reciprocity, altruism Norms and Culture	
5	Module 5: Applications of Behavioural Economics Introduction to Behavioural Labour Economics, Behavioural Finance Taxation and the contribution of Behavioural Economics Choice architecture: The role of nudging Public Policies : Psychological and social perspectives on policy in the area of Poverty, Health, Climate Change	
6	Module 6: Research methods for behavioural economics Survey: hypothetical choices, self-reported perceptions & biases Laboratory experiments – Precepts of laboratory experiments, internal and external validity Field experiments – Randomized Control Trails.	

Self Learning Components

SR. NO.	COURSE	LINK
2	Rationality in Psychology and Economics	https://www.mediatheque.lindau-nobel.org/videos/34157/1986-the-concept-of-human-rationality-in-economics-and-psychology
3	Decision-making under risk and uncertainty Decision-Making Under Uncertainty By Prof. N. Gautam Texas A&M Univ.	https://onlinecourses.nptel.ac.in/noc19_mg43/preview

Reading List: Books: ·

Nick Wilkinson; Matthias Klaes(2012), An Introduction to Behavioral Economics, 2nd Edition, Palgrave Macmillan. ·

Colin F. Camerer, George Loewenstein, Matthew Rabin (ed.)(2004), Advances in Behavioral Economics, Princeton University Press. ·

Dan Ariely, Harper Perennial Predictably Irrational: The Hidden Forces That Shape Our Decisions, 2010, ISBN 0061353248, ISBN13 978-0061353246. ·

M. Altman, Handbook of Contemporary Behavioral Economics: Foundation and Developments (2007), Prentice Hall India ·

E. Cartwright, Behavioral Economics (2011), Routledge · D. Kahneman, Thinking Fast and Slow (2011), Allen Lane, Penguin Books ·

G. Loewenstein, Exotic Preferences: Behavioral Economics and Human Motivation (2007), Oxford University Press ·

Erik Angner, “A Course in Behavioral Economics”,

Palgrave Macmillan · SanjitDhami, “The Foundations of Behavioral Economic Analysis”, Oxford University Press (2016) Reports: World Development Report 2015: Mind, Society, and Behavior Articles: ·

Gianna Lotito (2006): Dynamic inconsistency and different models of dynamic choice – a review, working paper 83, UNIVERSITA’ DEL PIEMONTE ORIENTALE “Amedeo Avogadro” ALESSANDRIA <http://polis.unipmn.it/pubbl/RePEc/uca/ucapdv/lotito83.pdf> · F. Shane, G. Loewenstein and T. O'Donoghue; “Time Discounting and Time Preference: A Critical Review”; Journal of Economic Literature; Jun.(2002), Vol. 40, No. 2. pp. 351-401 · Experiments and Behavioral Economics by Robert J. Oxoby in M. Altman, Handbook of Contemporary Behavioral Economics: Foundation and Developments (2007), Prentice Hall India · Richard H. Thaler : Misbehaving

Sr. No	Course Code	Title	Credits	Lectures
1	PH-TEC-306	Urban Economics	4	48

Title: Urban Economics

This course is designed as a preliminary level course. The learning objective here is to acquaint the underlying theories, propositions and issues that usually arise in studying an urban situation. The course will equip the student with the basic theoretical premises and analytical tools (borrowed from the standard Micro and Macroeconomics) that are used by an urban economist. The course therefore is not necessarily grounded in any particular

reality (except where explicitly mentioned). However, for pedagogical purposes, explanation and illustrations will naturally come from the Indian situation. It is recommended (although not strictly mandatory) that this course be taken as a pre-requisite for any of the other electives being offered in the area of Urban Economics.

Units	Module	Number of Lectures
1	Module 1: Urban Forms Historical evolution of urban forms—definition, rationale and modern related types (UA). Agglomeration – productivity increases, models of optimal city size and regional dispersal. City functions and size class	12
2	Module 2: Within the City Location of Economic Activities, Land use patterns – classical models and modern reality, regulation land ceiling and rent control. Labour Markets– nature, informalisation. Migration, Urban poverty, Environment	12
3	Module 3: Local Public Goods and Infrastructure Nature of Local Public Goods and Utility Pricing – water/sanitation, health and education. Power, Housing and Transportation infrastructure. Slums and rehabilitation – Urban infrastructure needs and finance	12
4	Module 4: Governance Municipal governments – sources of revenues (local taxes) and expenditure. Functions and budgets in a decentralized set up. Governance Issues – capacity building and the role of civil society	12

Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Urban Forms	
Module 2	Within the City	
Module 3	Local Public Goods and Infrastructure	
Module 4	Governance	

References:

1. O’Sullivan, A., Urban Economics, McGraw-Hill Irwin, 2002 (BASIC TEXT All Modules)
2. Shukla, V., Urbanization and Economic Growth, Himalaya Publishers Pvt. Ltd., Mumbai, 1996 (Modules 1,2)
3. Bahl, R and J. Linn, Urban Public Finance in Developing Countries, OUP (WB), 1992 (Modules 3,4)
4. Ramachandran, R., Urban Economics and Urban Systems in India, OUP, 1989

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-TEC-307	Economics of Health and Education	4	48

Title: Economics of Health and Education

This elective course covers theoretical foundations of economics of health and education and also techniques of economic evaluation. These two aspects of social infrastructure are clubbed together because there is an interdependence of output and existence of large externalities in both health and education sectors. Also these are important components having critical linkages to human development through improving human capabilities and empowerment. This course aims to equip students with skills to understand and analyze the development of the health and education sectors. The emphasis will be on policy options and issues for developing countries like India but will also draw on the experience of other countries wherever relevant.

Units	Module	Number of Lectures
1	Module 1: Economics of Health Distinction between health and health care- Nature of health care as an economic commodity- Demand for health and Supply of health- Opportunity costs and problems of rationing health care. Costs and efficiency- Costs: fixed, marginal and average costs. Efficiency - technical and allocative efficiency, and of various types of equity. Market System and health care needs- Market failure and the role of government – how insurance markets work, and how they can fail for health care	12
2	Module 2: Financing Health Care, Delivery of Health Care The economics of financing health care, different approaches taken by governments in different countries- Options for financing health care in developing countries- The rationale of government funding and regulation of health care- examining the potential role of user charges and community financing schemes. Delivery of health care - decentralization and the role of the private/public mix.-health system reforms. The future of Health Sector reforms in developing countries like India	12
3	Module 3: Economics of Education Formal and non-formal education-Special characteristics of education- Implications for economic analysis- Role of the state – Education, Productivity and Employment-Investment in education: Costs and benefits, Private and social rates of return (Human capital and Signaling theories of education)	12
4	Module 4: Indian Education System Indian Education system –Rationale of government funding and	12

	regulation of education- Alternative method of financing education- Resource allocation to primary, secondary and higher education- Efficiency, equity and distributional aspects: Implications for gender and social groups- Role of private and public sectors, Union and State governments- Special programmes for education.	
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Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Economics of Health	
Module 2	Financing Health Care, Delivery of Health Care	
Module 3	Economics of Education	
Module 4	Indian Education System	

References:

1. Becker, G.S., Human Capital 2nd.Edn., National Bureau of Economic Research, New York,1974
2. Cecchi, Daniel, Human Capital, Family Background and Inequality, Cambridge University Press,2008
3. Feldstein, P. J., Health Care Economics, Wiley,1993(Module1)
4. Grand, J., Propper. C and Ray Robinson, The Economics of Social Problems, Palgrave, 2002 (Modules 1 and3)
5. Henderson, J.W, Health Economics and Policy, South-Western Homson Learning, 2001 (Module2)
6. Mcpake, B., L. Kumanayake and C. Normand, Health Economics: An International Perspective, Routledge, 2002.(Module1)
7. Musgrove, P., Health Economics in Development, The WorldBank,2004 (Modules 1 and 2)
8. Panchamukhi, P. R., Economics of Health: An Introductory Review, ICSSR, 2002 (Modules 1 and2)
9. Robinson, E.A.G. and Vaizey, J. (eds), The Economics of Education, International Economic Association , Macmillan , London,1966 (Modules 3 and4)
10. Tilak, J.B.G., Economics of Inequality in Education, Sage, New Delhi, 1989 (Module4)

SEMESTER IV

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-401	Economics of Services	4	48

Title: Economics of Services

The objective of the course is to bring an understanding of economics of services to students. The course deals with various microeconomic and macroeconomic aspects of the service economy. The course includes empirical studies on trade in services and macroeconomic dynamics in services sector growth in India. The discussion on sectoral and sub-sectoral services would be in the formal-informal sector perspective wherever applicable.

Units	Module	Number of Lectures
1	Module 1: Introduction to Economics of Services Concept of service- Attributes of service, Main types of services and their classification, service- goods relationship, economic services; Rural-Urban Services-dualism, Services Economy- Concept and its role in development Knowledge Economy- Concept and Characteristics, Innovation and R&D Theory of Unbalanced Growth, Fisher-Clark hypothesis, Fuchs model of inter-sectoral shift in employment, Gemmell's extension of Fuchs' model, Neo-Industrial Theory of Self-Services	12
2	Module 2: Value and Pricing of Services and Measurement of Service Output Calculation of the value of a service product, definition of a unit of service, characteristics of non-market services, Service production and distribution costs, the basic trade-off and derivation of the supply-system cost function, optimal charges for services. The provision of services in a market economy, Fee-price of service, Subscription Business model. Measurement of output and productivity in the services sector; issues and measures	12
3	Module 3: Trade in Services Characteristics of Trade in Services- Melvin Approach to Trade in Services, Jones and Ruane theory of trade in services; Barriers to trade in services and Methods to measure them; World trade in Services- General Agreement on Trade in Services (GATS); India's trade policy and Trade in Services	12
4	Module 4: Services Sector in India Dynamics of services sector growth in India, Three-sector hypothesis and India, Role of service sector in Indian Economy, Decomposition of Services sector growth in India and its implications. Employment in Services Sector-a gender perspective, Business Services, Telecommunications, Tourism, IT and ITES in India. FDI in services, Public Policy and services- Service Tax in India, Goods and Service Tax, Public Private Partnerships in Services	12

Self-Learning components (Unit wise)

Module	Topic	Self Learning Link/References
Module 1	Introduction to Economics of Services	
Module 2	Value and Pricing of Services and Measurement of Service Output	
Module 3	Trade in Services	
Module 4	Services Sector in India	

References:

1. Akehurst, G. and J. Gadrey, The Economics of Services, Routledge, 1998 (Modules 1 and2)
2. Chanda, R., Trade in Services and India: Prospects and Strategies, Wiley India, 2006 (Module3)
3. Chanda, R., Globalization of Services: India's Opportunities and Constraints, Oxford University Press, New Delhi, 2002 (Module3)
4. Jansson, J. O., The Economics of Services, Development and Policy, Edward Elgar Publishing, 2006 (Module 1 and2)
5. Economic Census of India(Latest)

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-FEC-402	Economics of Climate Change and Resource Development	4	48

Title: Economics of Climate Change and Resource Development

Climate change is posing several challenges to the sustainability and livelihood across the globe. Uncertainty of climatic change is creating hurdles in the process of sustainable development. Understanding and mitigating climate change have become important aspect of policy making. This 4-credit course aims to equip students with the necessary economic tools to understand the implications of climate change on natural resources and understand issues in renewable energy in response to resource management.

Units	Module	Number of Lectures
1	Module 1: Understanding Economics of Climate Change Defining climate change; Climate change as public good-market	12

	failure; Climate change and externalities; Impact of Climate change - adaptation-vulnerability and climate induced migration; Sectoral effects of climate change. (Cost-benefit evaluation)	
2	Module 2: Mitigating Climate change Economic approach to valuing damages from climate changes: market based method, and non- market method; Economic efficiency of mitigating programs; financing Climate Change as a common; Measures- policy tools in mitigating climatic change: Cap and trade program, (institutional responsibilities)-Country level (developed and developing) policies for meeting the climate change challenges; International treaties and working together towards a better future-obstacles to reaching a consensus at the global scale, Balancing the policies to benefit both developed and developing economies.	12
3	Module 3: Development of Resources and Climate Change Conventional resources; Active and passive values of resources; Public policies for resources; Markets and efficiency; Pricing of resources; Technology and resources- transformation of resources in regards to climate change.	12
4	Module 4: Use of Resources for Renewable Energy Costing of renewable Energies, and its viability (long term v/s short term); Energy consumption; Energy demands. Structure of Energy markets; Pricing of energy: from conventional/nonconventional resources; Cases across developed and developing countries.	12

Self-Learning components (Unit wise)

Module	Topic	Self-Learning Link/References
Module 1	Understanding Economics of Climate Change	
Module 2	Mitigating Climate change	
Module 3	Development of Resources and Climate Change	
Module 4	Use of Resources for Renewable Energy	

References:

1. Stern Nikolas (2006) Economics of climate change- The SternReview.
2. Field Barry C. (2012) Natural resource Economics: Introduction, Levant publication

Kolkata.

3. Harris and Roach (2014) Environmental and Natural Resource Economics: A Contemporary Approach, Third Edition, Springer.
4. Marina Cazorla and M Toman, (2000), International Equity and Climate Change Policy, Climate Issues Brief No 27, Washington DC: Resources for the Future

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-TEC-403	Law and Economics II	4	48

LAW AND ECONOMICS - II

PREAMBLE The primary aim of this enlargement is to develop greater applied research of legal system from economic view point and also build up the Indian experience based slant to the discipline of “Law and Economics”. This course will provide not only deeper and more complex view of the subject, but also afford to take up meaningful researches in specific type of law that has immense economic bearing and implications. In particular, this course will be dealing with Indian Environmental Laws, land related legislations (including land acquisition, town- planning, SEZ) and corporate laws. This will enable more all-round perspective of the subject with rich empirical analysis. It also deals with vital areas of concern, namely economics of litigation, economic costs of “administering or not administering justice”, question of back-log of cases, alternative procedures of administering justice. Similarly, the economic analysis of law making process, machinery and its efficiency will be a distinguishing feature of this course.

SR. NO.	MODULE	NO. OF LECTURES
1	Module 1: Economic Theory of Legislation: Legislative process , Delegated legislation, Precedents, Rules v/s Standard, Interpretation of Statute	
2	Module 2: Economic Analysis of Litigation: Rules of procedure, Rules of Evidence, The adversarial and inquisitorial trial mode, Alternative dispute resolution (ADR), Lok Adalat, Arbitration, Conciliation and mediation, Settlement, Appeals and error correction, Cost of litigation, Case load and Court Delay Crisis	
3	Module 3: Economic approach to Contract law in India: Contract Act, Specific Relief Act, Court approach to formation, validity, performance, interpretation, breach of contract and remedies for breach	
4	Module 4: Economic Approach to Environmental Protection Laws: Environmental protection laws and Court decisions, Principles and doctrines evolved by Supreme Court for protection of Environment, Air pollution, Water pollution, Sound pollution, Automobile and industrial pollution, Climate change, Carbon credits – emerging market	
5	Module 5: Economic Approach to Issues in Land Acquisition Laws: Acquisition of land for public purpose, Acquisition for companies, Purpose and suitability, Market value and compensation	
6	Module 6: Town Planning Laws: Allocation of land – for residential, industrial, commercial, agricultural purposes, Reservation of land for public purpose	

7	Module 7:Special Economic Zones: Concept, Law, Policy and Problems	
8	Module 8: Intellectual Property Rights: Patents, Copyrights, Trademark, Trade secrets, Plant varieties & Farmers' Rights, Salient features of Indian Laws	
9	Module 9:Economic Analysis of Corporate Law Issues: Formation of a company, share capital and fund raising, Separation of ownership and control, Majority power and minority protection, Corporate governance, Regulation of security markets and protection of investors and SEBI, Management of foreign investment and foreign exchange under FEMA.	

Self-Learning components (Unit wise)

Module	Topic	Self-Learning Link/References
Module 1	Legislative process By Prof. Ajmer Singh Malik Kurukshetra University, Kurukshetra	https://onlinecourses.swayam2.ac.in/ugc19_hs50/preview
Module 2	Case load and Court Delay Crisis	https://www.legalserviceindia.com/legal/article-2271-judicial-delays-a-menace.html
Module 3	Breach of contract and remedies for breach Dr.Devika Bhatnagar	https://www.youtube.com/watch?v=LuSBV0CSx1E
Module 4	Economic Approach to Environmental Protection Laws IIT, MADRAS, PROF. SAIRAM BHAT	https://nptel.ac.in/courses/129106002
Module 5	Economic Approach to Issues in Land Acquisition Laws Prof. Harshit SosanLakra, IIT ROORKEE	https://www.youtube.com/watch?v=rZnCnFdbLHg
Module 6	Reservation of land for public purpose Housing Policy & Planning By Prof. Uttam Kumar Roy IIT Roorkee	https://onlinecourses.nptel.ac.in/noc21_ar16/preview
Module 7	Special Economic Zones	https://www.legalserviceindia.com/legal/article-6627-the-concept-of-special-economic-zones.html
Module 8	Intellectual	https://onlinecourses.nptel.ac.in/noc20_hs18/preview

	Property Rights By Prof. Feroz Ali IIT Madras	
Module 9	Economic Analysis of Corporate Law Issues By Prof. (Dr.) Harpreet Kaur National Law University Delhi	https://onlinecourses.swayam2.ac.in/cec20_hs23/preview

BASIC READING LIST –

Posner Richard A – Economic Analysis of Law (7th Edition 2007) –
Cooter Robert & Ulen Thomas- Law and Economics (5th Edition 2007) –
Shavel Steven – Foundation of Economic Analysis of Law (2004) –
Harison Jeffrey L. & Theeuwes Jules - Law and Economics (2008) –
Polinsky Mitchell A – An Introduction to Law and Economics (2003) –
Friedman David D. – Law’s Order (2000) –
Wittman Donald A – Economic Analysis of Law- Selected Reading (2003) –
Micali Thomas J – The Economic Approach to Law (2009) –
Hirsch Werner Z - Law and Economics (1999) –
Landes Williams, Posner Richard. – The Economic Structure of Intellectual Property Laws (2003) –
S Shanthakumar’s – Introduction to Environmental Law.

Module wise Reading List.

Module 1:

Economic Theory of Legislation – - Posner: chapters 19, 20. - Shavel: chapter 25. - Harison: chapter 24. - A Model of Optimal Complexity of Legal Rules- Luis Kaplow, Journal Of Law, Economics & Organisation Vol. 11, No. 1 (April, 1995) Pages 150 to 163. - Codification & Optimal Specification of Legal Rules- VincyFon, Francesco Parisi, George Mason University School of Law –Law and Economics working paper, Source of Law and Institutional Design of Law Making. - Legal Rules and Standards – Hans Bernd Schafer. University of Hamburg, Germany. German Working Papers in Law and Economics Vol. 2002.

Module 2:

Economic Analysis of Litigation – - Posner: chapters 21, 22, 23. - Cooter: chapter 10. - Shavel: chapters 17, 18, 19. - Harison: chapters 22, 23. - Salient Features of Civil Procedure Code, 1908 and Indian Evidence Act, 1872.

Module 3: Economic approach to Contract law in India – - Salient features of Contract Act & their analysis applying Law & Economic methodology. - Specific Performance and Injunctions, Research of decided cases from Law Reporters & analysis of landmark cases decided by Supreme Court & High Courts with economic approach.

Module 4: Economic Approach to Environmental Protection Laws - - Harison: chapter 4.

Module 8: Intellectual Property Rights – - Landes and Posner: Patents chapters 11, 12. - Copyrights: chapters 2 to 6 - Trademark: chapters 7 & 8 - Trade Secrets: chapter 13 and Shavel: chapter 7.

Module 9: Economic Analysis of Corporate Law Issues –Posner: chapters 14 & 15, Economic Analysis of Law selected reading Part V. Additional Reading List. - Posner Eric A

– Chicago Lectures in Law and Economics (2000) - Posner Richard A – Frontiers of Legal Theory (2001) - Mulla – Indian Contract and Specific Relief Acts. - Patent Act, 1970. - Copyright Act, 1957. - Trademark Act, 1999. - P. Narayanan – Intellectual Property Law. - Cornish & Llewelyn – Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights. - Protection of Plant Varieties & Farmer’s Rights Act, 2001. - Indian Companies Act-Salient Features. - SEBI. - FEMA. - Land Acquisition Act. - Maharashtra Town Planning Act. - Special Economic Zones. - Air (Prevention and Control of Pollution) Act, 1981. - The Water (Prevention and Control of Pollution) Act, 1974. - The Environment (Protection) Act, 1986 – Rules and Notifications.

Syllabus Information

Sr. No	Course Code	Title	Credits	Lectures
1	PH-TEC-404	Introduction to R	4	48

AN INTRODUCTION TO R SOFTWARE

Preamble: The objective of this course is to impart a practical understanding of ‘R’ software for classification of data and descriptive statistics. The student will be able to develop the skill of using the software to generate statistical output to be used for further statistical analysis. It will impart practical hands on knowledge to students as they will be trained in computer science laboratories and taught the ‘R’ language using case studies and data sets.

SR. NO.	MODULE	NO. OF LECTURES
1	MODULE 1: R PRELIMINARIES Introduction to R•R environment• Installation of R software• Starting and Ending R• Working of R• Getting Help in R•R Commands and Case Sensitivity• Executing Commands from a File• Importing Data• R OBJECTS Data Types• Vectors and Vector Arithmetic• Sequence Function• Repeat Function• Combine Function• Numerical Functions• Accessing Vectors• Alternative Ways to Create Data Vectors• Other Types of Objects• Data Frames• Alternative Ways to Create Data Frame• Accessing Data from a Data Frame• Subset and Transform Commands• Resident Data Sets•	
2	MODULE 2: SAMPLING METHODS USING R Population and Sample• Simple Random Sampling• Stratified Random Sampling• Systematic Sampling• Simulation• GRAPHICS USING R Classification of Data-Discrete (Frequency Table) and Continuous (Frequency• Distribution) Diagrammatic Representation of Data-Simple Bar Diagram, Pie Charts• Graphical Representation of Data-Box Plot, Rod or Spike Plot, Stem and Leaf• Plot, Histogram, Frequency Polygon, Ogive Curve, Empirical Distribution Function	

3	<p>MODULE 3: MEASURES OF CENTRAL TENDENCY AND DISPERSION Arithmetic Mean• Geometric Mean• Harmonic Mean• Mode• Median• Partition Values• Range and Coefficient of Range• Quartile Deviation and Coefficient of Quartile Deviation• Mean Deviation• Standard Deviation• Coefficient of Variation (For Discrete Observations, Ungrouped Frequency• Distribution, Grouped Frequency Distribution)</p> <p>PROBABILITY DISTRIBUTIONS Probability• Binomial Distribution• Poisson Distribution• Normal Distribution• Exponential distribution•</p>	
4	<p>MODULE 4: CORRELATION AND REGRESSION Types of Correlation• Scatter Diagram• Product moment Correlation Coefficient• Simple Linear Regression•Regression Diagnostics by Graphical Method• Multiple Linear Regression•</p> <p>HYPOTHESIS TESTING Large Sample Tests (Z Test)• Small Sample Tests (t, F and Chi-square)</p>	

Self-Learning components (Unit wise)

Module	Topic	Self-Learning Link/References
Module 1	Introduction to R Software By Prof. Shalabh IIT Kanpur	https://onlinecourses.nptel.ac.in/noc19_ma33/preview
Module 2	Descriptive Statistics with R Software By Prof. Shalabh, Prof. Prashant Jha IIT Kanpur, NIT Sikkim	https://onlinecourses.nptel.ac.in/noc21_ma37/preview

REFERENCES:

W.N. Venables, D.M. Smith and the R Core Team, An Introduction to R, Notes on R, URL: <https://cran.r-project.org/doc/manuals/r-release/R-intro.pdf> P. Dalgaard, Introductory Statistics with R, Springer

Part 4: Evaluation Criteria and Question Paper Pattern

Division of Marks: 40-60

Continuous assessment and Evaluation (CAE): 40 marks

	Internal Evaluation of 40 Marks	
	Particulars	Marks
A	SLE/ Project/ Assignment/ Research Paper/ Academic essay/ etc	20
B	Presentation/Viva based on A	15
C	Active participation in class	5

Semester End Examination (SEE) : 60 marks

Duration : 2Hours

Question	Particulars	Marks
1	From Unit 1 with internal choice	15
2	From Unit 2 with internal choice	15
3	From Unit 3 with internal choice	15
4	From Unit 4 with internal choice	15
