ADAMAS UNIVERSITY

SCHOOL OF ECONOMICS & COMMERCE

DEPARTMENT OF ECONOMICS

M.A. IN ECONOMICS PROGRAMME

(2019-21)

SCHOOL OF ECONOMICS & COMMERCE

POST GRADUATE PROGRAMME STRUCTURE

(UNDER CHOICE BASED CREDIT SYSTEM)

M.A. in ECONOMICS 2019-21

SEMESTER 1

SL. NO	TYPE OF COURSE	COURSE CODE	TITLE OF THE COURSE	Contact Hours per Week				REMARKS
				L	T	P	C	
1	HC	CEC51101	ADVANCED MICROECONOMICS	3	1	0	4	
2	HC	CEC51103	ADVANCED MACROECONOMICS	3	1	0	4	
3	HC	CEC51105	MATHEMATICAL ECONOMICS	3	1	0	4	
4	HC	CEC51107	HISTORY OF ECONOMIC THOUGHT	3	1	0	4	
5	HC	CEC51109	INSTITUTIONAL ECONOMICS	3	1	0	4	
			SUB TOTAL				**20**	

SEMESTER 2

6	HC	CEC51102	POLITICAL ECONOMY OF DEVELOPMENT	3	1	0	4	
7	HC	CEC51104	INTERNATIONAL TRADE	3	1	0	4	
8	HC	CEC51106	INDIAN ECONOMY IN THE GLOBAL CONTEXT	3	1	0	4	
9	HC	CEC51108	ECONOMETRIC METHODS	3	1	0	4	
10	HC	CEC51110	TOOLS FOR QUANTITATIVE & QUALITATIVE RESEARCH	3	1	0	4	
	INT		SUMMER INTERNSHIP	4-6 Weeks				
			SUB TOTAL				**20**	

SEMESTER 3								
11	HC	CEC52101	GLOBALIZATION AND CONTEMPORARY ISSUES OF DEVELOPMENT	3	1	0	4	
12	SC		SOFT CORE (Paper-A)	3	1	0	4	
13	SC		SOFT CORE (Paper-B)	3	1	0	4	
14	SC		SOFT CORE (Paper-C)	3	1	0	4	
15	OE		OPEN ELECTIVE	3	1	0	4	
16	INT	CEC52621	INTERNSHIP	Evaluation			4	
			SUB TOTAL				**24**	
SEMESTER 4								
17	HC	CEC52102	INTERNATIONAL FINANCE	3	1	0	4	
18	HC	CEC52104	ECONOMICS OF SOCIAL ISSUES	3	1	0	4	
19	SC		SOFT CORE (Paper-D)	3	1	0	4	
20	SC		SOFT CORE (Paper-E)	3	1	0	4	
21	MDS	CEC52718	DISSERTATION	0	6	0	6	
22	OE		OPEN ELECTIVE	3	1	0	4	OPTIONAL
			SUB TOTAL				**22**	
			TOTAL REQUIRED CREDIT				**86**	

Soft Core Courses (SC):

Soft Core Courses are offered in Semester III and Semester IV. Students are required to specialize in one stream during second year. They need to opt for **any one stream** from the list below. Under each stream five papers will be taught.

List of Specialization:

This list is amendable subject to availability of faculty resource and university infrastructure.

1. Applied Economics

2. Economics of Public Policy

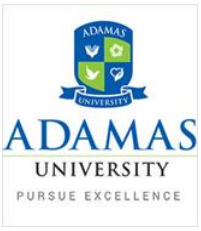
3. Banking & Finance

List of Soft-Core Courses under Each Specialization

Applied Economics			Economics of Public Policy			Banking & Finance		
Paper	**Paper Name**	**Code**	**Paper**	**Paper Name**	**Code**	**Paper**	**Paper Name**	**Code**
SEMESTER III								
A	Statistical Inference Snd Estimation Methods	CEC52103	A	Economics of Private Health Market	CEC52109	A	Financial Institutions And Market	CEC52115
B	Advanced Econometric Methods	CEC52105	B	Economics of Public Health	CEC52111	B	Principles of Modern Banking	CEC52117
C	Econometric Analysis Of Data	CEC52107	C	Economics of Education	CEC52113	C	Corporate Finance	CEC52119
SEMESTER IV								
D	Multivariate Data Analysis	CEC52106	D	Economics of Natural Resources	CEC52110	D	Principles of Investment Banking	CEC52114
E	Analysis of Big Data	CEC52108	E	Environmental Regulation And Valuation	CEC52112	E	Security Analysis And Portfolio Management	CEC52116

ABBREVIATIONS

HC : Hard Core Course	SC : Soft Core Course
SEC : Skill Enhancement Course	OE : Open Elective Course
INT : Internship	
MDS : Masters Dissertation	



SEMESTER I

CEC51101	ADVANCED MICROECONOMICS	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of UG level Microeconomics				
Co-requisites	Command over English Language and Higher Secondary Mathematics				

Course Objectives

1. To **understand** the micro foundations of modern economic theory. Consumption and production are to be taught based on the principle of self-interest maximization, at the individual level. The two aspects are to be integrated in a perfectly competitive market framework

2. To **create** theories towards various market imperfections, failures and externalities, asymmetric information and others

3. To **analyze** strategic interaction between various economic agents involved in undertaking economic decisions as an important aspect to understand the functioning of an economy and hence the course also covers Game Theory.

4. To **apply** insight into the accounting side of all economic transactions and policies for understanding long term cost and benefit implications.

Catalog Description

Advanced Microeconomics is the application of microeconomic tools studies at UG level to advanced as well as interdisciplinary areas. It aims to place the learner in the research industry or in academic profession. It is the basis of policy making as well as corporate decision making.

Course Content

Unit 1: Theory of Consumer Behaviour [20 Hrs]
History of utility theory (Shift from Cardinal to Ordinal Approach); Classical demand theory: Preference relation, their properties, the utility Functions, homothetic preference, utility

maximization, indirect utility functions, Roy's Identity, expenditure minimization, Hicksian demand, duality, income Effect, substitution effect and Slutsky equation; theory of revealed preference: WARP, SARP, intertemporal choice, time preference, utility maximization, discounted value; choice under uncertainty, expected utility function, attitude towards risk

Unit 2: Theory of Firm [15 Hrs]

Production Sets, input requirement sets and production functions, returns to scale and homogeneity; Cost minimization, properties of cost functions, Input demand functions and Shephard's Lemma, Duality between cost and production functions, short run and long run cost functions; duality between cost and production functions, short run and long run cost functions;

Unit 3: General Equilibrium Analysis, Welfare Economics and Market Failure [13 Hrs]

From partial to general equilibrium framework; The basic model: Edgeworth Box analysis of an exchange economy, equilibrium (Existence, uniqueness, stability), Externalities: Positive, negative, consumption, production; Solutions: government interventions, Coase Theorem; Public goods: optimality, overproduction, Lindahl equilibrium, Asymmetric information

Unit 4: Economics of Information & Game Theory [12 Hrs]

Game Theory, Nash equilibrium, Dynamic games, incomplete information games: Adverse selection, signaling, moral hazard, screening, principal-agent problem, Bayesian Nash equilibrium

Reference Books

Microeconomic Analysis. Hal R. Varian. W W Norton & Company; 3rd edition (2010)
Microeconomics: Theory and Applications. Anindya Sen. Oxford University Press; 2nd edition (2006)

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC51103	ADVANCED MACROECONOMICS	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	UG level knowledge of Macroeconomics				
Co-requisites	--				

Course Objectives

- **Interpret** workings of open economy macroeconomics.
- **Interpret** advanced concepts like aggregate demand and aggregate supply, consumption behaviour, investment behaviour, macroeconomics of developing countries, overlapping generation model.
- **Interpret** and understand the propositions of different schools of thought that dominate modern macroeconomics theory.
- **Develop** mathematical models and rigorous analytical frameworks.
- **Discuss** the different macroeconomic tools used in policy making.

Catalog Description

This course will explore at a deeper level some of the topics of open economy macroeconomics and study other research topics in macroeconomics. This course will take students through models of aggregate demand and aggregate supply, consumption behaviour investment behaviour, macroeconomics of developing countries, overlapping generation model and its application.

Course Content

Unit 1: Open Economy Macroeconomics (10hrs)

Balance of payments, Exchange rate systems, Fixed vs. Flexible Exchange Rate; Perfect and Imperfect Capital Mobility; Mundell-Fleming model: Monetary and Fiscal Policy; Expectations and Exchange Rates, Monetary approach to Balance of Payments

Unit 2: Aggregate Demand & Supply (10hrs)

Models of aggregate supply, Phillips curve, Adaptive and Rational Expectations, Policy evaluation and the Lucas critique, New classical analysis, Real business cycles

Unit 3: Consumption Behaviour (10hrs)

Permanent Income and Life cycle theories, Consumption Theory and Hall's Random Walk

Unit 4: Investment Behaviour (10hrs)

Neoclassical theory, Tobin's q, Imperfect information and investment

Unit 5: Macroeconomics of Developing Countries (10hrs)

World Bank- IMF model; Structural Change and Unbalanced Growth; Financial Repression; Exchange Rate Dynamics; International Financial Markets and Financial Crises

Unit 6: The Overlapping Generations Model (10hrs)

The Ramsey–Cass–Koopmans Model**;** The Overlapping Generations Model (OLG model) or the Diamond model.

Text Books

1 .Lectures on Macroeconomics. Blanchard and Fischer. Phi Learning; 1st edition (2009)
2. Advanced Macroeconomics. David Romer. Tata McGraw - Hill Education; 4th edition (2011)
3. Macroeconomics: Theories & Policies. R. Froyen. Pearson Education; 10th Edition (2013)

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC51105	MATHEMATICAL ECONOMICS	L	T	P	C
Version 1.0	Contact Hours: 60	3	1	0	4
Pre-requisites/Exposure	UG level knowledge of Mathematical Economics				
Co-requisites					

Course Objectives

- Equip the students with advanced mathematical analysis of the economic problem
- Equip students with optimization techniques, real analysis, and linear algebra, differential equations in real world economic problems
- Introduce students to dynamic optimization
- Introduce students to mathematical tools of stability

Catalog Description

This paper introduces students to the advanced tools, terminology and analytic principles used in economics, the application of these conceptual tools to several economic agent's decision oriented policy issues. The decisions of buyers and sellers and their interaction in market transactions will be analyzed. This also explores how different market structures can shape economic results, and how markets can sometimes (but not always) help society achieve desirable outcomes.

Course Content

Unit 1: Introduction to Real Analysis [12 lecture hours]
The Real Number System, Basic Notions of Set Theory, Limits and Continuity, Derivatives

Unit 2: Introduction to Linear Algebra [12 lecture hours]
Vector Spaces, Linear Transformations, Matrices, Linear Equations and Determinants

Unit 3: Static Optimization I [14 lecture hours]
Unconstrained Optimization, Real-Valued Functions of Several Variables, Second Order Conditions, Economic Applications

Unit 4: Static optimization II [10 lecture hours]
Classical Constrained Programming, Kuhn Tucker Formulation, Envelope Theorem, Economic Applications

Unit 5: Differential Equations and Stability Issues [4 lecture hours]
Differential Equations, Stability Theory, Phase Diagrams

Unit 6: Dynamic Optimization [8 lecture hours]
The Nature of Dynamic Optimization, Alternative Approaches to Dynamic Optimization, Optimal Control Theory

Text Books:

T1. Mathematics for Economists. Carl P. Simon, L Blume. Viva Norton (Student edition). Reprint 2015.

T2. Essential Mathematics for Economic Analysis. Knut Sydsaeter, Peter J Hammondand , and Arne Strøm. Pearson India; 4th edition (2013).

Reference Books:

R1. Optimization in Economic Theory. Avinash K. Dixit. Oxford University Press; 2nd Revised edition (2010)

R2. Linear Algebra. Hadley. Narosa Book Distributors (2002)

R3. Real Analysis. H. L. Royden. Prentice Hall India, 4th edition (2011)

R4. Fundamental Methods of Mathematical Economics. A. C. Chiang, and Wainwright. McGraw Hill Education (India) Private Limited; 4th edition (2013)

R5. Elements of Dynamic Optimization. Chiang, Alpha. C. Sarat Book Distributors (2012)

R6. Mathematical Optimization and Economic Theory. Michael D. Intriligator. PHI Learning (SIAM); 2012

R7. Linear Algebra - A Geometric Approach. Ted Shifrin, Malcolm Adams., W. H. Freeman (2010)

R8. Optimization and Stability Theory for Economic Analysis. Beavis & Dobbs. Cambridge University Press (1990)

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Attendance	Mid Term	Presentation/Assignment / etc	End Term
Weightage (%)	10	20	30	40

CEC51107	HISTORY OF ECONOMIC THOUGHT	L	T	P	C
Version 1.0	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Any Undergraduate degree (in 10+2+3 structure) with Economics in UG level				
Co-requisites	--				

Course Objectives

- Help students learn and discuss, at an advanced level, how the economic thought has evolved over time, introducing students to the critical comparison of the contributions of the main schools of economics.
- Help students understand the analytical foundations of the approaches in the economics of the 19th and 20th centuries.
- Prepare students to apply this knowledge and understanding to the way in which the research can be prepared and presented with specific contributions on themes of economic analysis.
- Promote the learning ability so as to develop and consolidate competence in the field of economic thought, elaborating on critical evaluations of the economic reality of historical events.

Course Description

This course retraces the development of structure of economic thought since the birth of modernity. It emphasizes the socio-economic context in which the specific mode of thought has arisen from and shows the historical specificity of the age of modern capitalism. The laissez-faire doctrine of classical economics gives way to marginalist neoclassical economics which is met with confrontation in the form of the structuralist Keynesian economics. Marx on the other hand shows the way out through his method of dialectics and paves the path for unity of theory and practice

Course Content

Unit 1 **[10 lecture hours]**
Birth of Modern Thought

Enlightenment, Western modernity, colonialism, Imperialism, Orientalism, dualism, determinism

Unit 2 **[20 lecture hours]**

Classical political economy

Mercantilism, physiocracy, classical political economy, Adam Smith and the labour theory of value, concept of laissez faire, Ricardo.

Unit 3 **[10 lecture hours]**

Marx

Critique of political economy, subject and objectivity, dialectics, unity of theory and practice, mode of productions, historical materialism, overdetermination, class as an entry point.

Unit 4 **[05 lecture hours]**

Neoclassical economics

Marginalist revolution, positivism, partiality, empirical-practical aspects, rejection of labour theory, utility theory, subjectivist approach, general equilibrium theory vs partial equilibrium approach.

Unit 5 **[05 lecture hours]**

Keynesianism

Structuralism, reverse causality, critique of Says law and classical economics, the idea of 'animal spirit' and investment theory, the money market, speculative demand for money, uncertainty and expected rate of profit.

Unit 6 **[10 lecture hours]**

Recent advancements

Critique of rationalism and empiricism, relativist epistemology, heterodoxy, pluralism in economics

Reference Books:

R1. Schumpeter (1954): History of Economic Analysis, Harvard University Press
R2. Screpanti & Zamagni (2005): An Outline of the History of Economic Thought, OUP
R3. Blaug (1983): Economic Theory in Retrospect (3/e), Vikas Publishing, New Delhi
R4. Resnick and Wolff, 1987, Knowledge and Class: A Marxian Critique of Political Economy, University of Chicago Press
R5. G.M. Meier and J.E. Rauch. *Leading Issues in Economic Development*. Oxford University Press. (2005)
R6. Resnick, S. and R. Wolff. (2012). Contending Economic Theories. MIT Press.
R7. Escobar, A. (1995). Encountering development: the making and unmaking of the third world. Princeton University Press.
R8. Snowdon and Vane (2005): Modern Macroeconomics, Edward Elgar Publishing Limited

CEC51109	INSTITUTIONAL ECONOMICS	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of development economics, microeconomics and macroeconomics				
Co-requisites	--				

R9. Engels, F. 1976. Ludwig Feuerbach and the end of Classical German Philosophy.Peking: Foreign Languages Press.
R10. Cohen, G.A. 1978. Karl Marx's Theory of History: A Defence. Princeton University Press.

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	**30**	**10**	**20**	**40**

Course Objectives

1. **Outline** the difference in economic performance of different nations in the light of different institutional framework prevailing there.
2. **Interpret** how a country's institutions can encourage or prevent the efficient use of a society's human and natural resources.
3. **Interpret** the emergence of global institutional frameworks.
4. **Analyze** the schools of thought and theoretical underpinnings that has shaped institutional economics.
5. **Develop** critical analysis of existing policies and suggest same.

Catalog Description

The main objective of this course is to understand how the role of the evolutionary process and the role of institutions are shaping economic behaviour. It helps to understand the social systems, or "institutions," that constrain the use and exchange of resources (goods and services) and their consequences for economic performance. It makes us to understand how a country's institutions can encourage or prevent the efficient use of a society's human and natural resources.

Course Content

Unit 1: India as an Emerging Economy (20hrs)

Economic Reforms (Structural adjustment and Stabilization policies; Membership of WTO; Second Generation Reform; High growth rate since 2004 and BRIC membership; Sectoral performance in terms of output and employment; what has become the engine for growth; Macroeconomic Policies and their role: Fiscal Policy, Monetary Policy, Trade Policy etc. (Brief discussion); Distribution Implications - Growth vs. poverty, inequality – jobless growth?

Unit 2: Sectoral Performances in Indian Economy: Output Composition (20hrs)

Agriculture: Change in growth, yield and cropping pattern; Sectoral contribution in GDP; Crop failure – increased vulnerability - Farmers‟ suicide;

Industry: Change in the composition – Identification of high growth industries; composition of Secondary sector; Primary industries (traditional and dirtier) to Modern sophisticated industries (cleaner and technologically advanced);

Service sector growth: skill intensive sector; high return for investment in education (skill

accumulation)

Unit 3: Employment Implications of Growth (10hrs)

Changes in Labour Market: Changes in employment and Labor Productivity; Trends in Wages and wage inequality; Increased casualization of labour; increase in labour mobility viz-a-viz loss of social security; High risk and high return in job market; Gender and Labour Market; Countering unemployment by State: Implications of Employment Generation Schemes

Unit 4: Infrastructural Development in India – Public Private Partnership (10hrs)

Infrastructural Development; How to Finance, Maintain and Implement User Right; Conflict between Economic Efficiency and Social Justice; Private investments in Infrastructure; Public Private Partnership: Definition, Structure, and Operation; PPP Initiatives in Developing Countries: Case studies

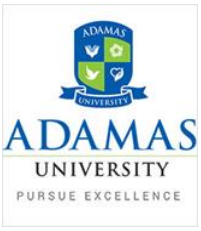
References:

1. Hodgson Geoffrey M., *What is the Essence of Institutional Economics*, Volume 34, No. 2, (2000)
2. John R Commons, Institutional Economics, *American Economic Review*, vol. 21, pp. 648-657**,** (1931)
3. Coase, R. The Nature of the Firm, *Economica*, Vol.4, pp. 386-405, (1937)
4. Coase, R.H. The Problem of Social Cost, *Journal of Law and Economics*, Vol.3, pp.1-44, (1960)
5. Malcom Rutherford, Institutional Economics, Then and Now, *Journal of Economic Perspectives*, Volume 15, No 3, (2001)

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40



SEMESTER II

Course Objectives

CEC51102	POLITICAL ECONOMY OF DEVELOPMENT	L	T	P	C
Version 1.0	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Any Undergraduate degree (in 10+2+3 structure) with Economics in UG level				
Co-requisites	--				

1. To familiarize students with the principal issues of economic development.
2. Study of public policy formation as a result of the interplay between economic, social and political decisions.
3. Acquaint students with the modern literature in theoretical and applied political economy.
4. Learn moral philosophy in a contemporary discipline and acquire an unparalleled knowledge of the important trends underlying the global economy.

Course Description

Political economy is the study of the role of economic processes in shaping society and history. Here, the students are introduced to the classical school of political economy who could go beyond the apparent prices to get to the notion of congealed labour that determines the exchange value of a commodity. In that spirit, the theory of market mechanism, growth and policies are taken up here. The course also deals with the works of economists like Marx, who on a completely different route, has tried to explain human creative activity through the social forms it takes in a specific stage of history of mankind. The key concepts developed by Marx are discussed in this course, in particular his focus on class processes or relationships, while rejecting the economic determinism of orthodox versions of Marxian theory. Thus, political economy makes extensive and intensive use of class analysis in making sense of society and history, but does so in the context of political, cultural, and environmental processes, as well as other economic processes.

Course Content

Unit 1: Introduction to political economy (10 Hrs)

Renaissance, rise of Western modernity, Enlightenment, humanism, individualism, liberalism, science and rationality, colonialism, imperialism, mercantilism, physiocracy.

Unit 2: Classical Political Economy (10 Hrs)

The labour theory of value - Adam Smith, invisible hand, theory of growth, role of state, value theory; Ricardo – income distribution, theory of rent; classical dichotomy, the quantity theory of money, market mechanism, competition, investment led growth, logic of capital accumulation, economic growth, free trade as an engine of growth, theory of absolute advantage and comparative advantage, J.S. Mill, Neoclassical economics - the marginalist revolution, subjectivist theory of value.

Unit 3: Marxian Theory- A Critique of Political Economy (10 Hrs)

Idealism vs. materialism, dialectics as a method, capitalism as a social structure, commodity and money, labour power, labour process, forces of production, relations of production, mode of production, surplus value and capital, class as property or power, exploitation as a Marxian category, historical materialism and the Marxian theory of development, value theory.

Unit 4: Overdetermination (10 Hrs)

Epistemology, ontology, determinism, dualism, economic dualism, transition, capitalist development and poverty eradication, history of capitalist transition and Imperialism, Introduction to critique of economic dualism and alternatives, Transition beyond capitalism.

Unit 5: Class and Development (10 Hrs)

Globalization and inequality- Globalization and employment- Trade liberalization, dispersion of production and the international division of labour- WTO and the nation state- Trade liberalization, capital flows and environment- Globalization and agriculture- Development and Democracy

Unit 6: Debating Consequences of Globalization (10 Hrs)

The Global Financial Crisis of 2008, and Increasing Inequality; Globalization and Working People – Who are the Winners and Losers? Globalization and Culture – Conflict or Convergence? Globalization and Political Change – More or Less Democracy?

References:

R1. A.P. Thirlwall. Growth and Development. Palgrave McMillan. (8th edition or latest)

R2. Basu, P. K. 2008. Globalization: *An Anti text*. Aakar Books.

R3. Chakrabarti, A and Dhar, A. 2009. *Dislocation and Resettlement in Development: From Third World to World of the Third*. Routledge.

R4. Chakrabarti, A, S, A, Dhar and Cullenberg, S. 2012. *World of the Third and Global Capitalism*. Worldview Press.
R5.Cohen, G.A. 1978. *Karl Marx's Theory of History: A Defence*. Princeton University Press.
R6. Engels, F. 1976. *Ludwig Feuerbach and the end of Classical German Philosophy*. Peking: Foreign Languages Press.
R7. Escobar, A. 1995.*Encountering development*: the making and unmaking of the third world. Princeton University Press.
R8. Gibson-Graham, J.K. 2006. *The Postcapitalist politics*. University of Minnesota Press.
R9.Lukács, G 1971 "What is orthodox Marxism?" *History and Class Consciousness: Studies in Marxist Dialectics*. Cambridge, Massachusetts: The MIT Press.
R10. Marx, K. 1976. *Grundrisse: Foundations of the Critique of Political Economy*. Penguin Classic.
R11. Marx, K. *Capital: A Critique of Political Economy. Volumes 1, 2 and 3*. Progress Publishers or Penguin Classic.
R12. Resnick, S. A. and Wolff, R. D. 1987. *Knowledge and Class: A Marxist Critique of Political Economy*. University of Chicago Press.
R13. Paul, R. R, 2013, History of Economic Thought, Kalyani Publishers.
R14.Resnick, S. and R. Wolff. 2012. *Contending Economic Theories*. MIT Press.
R15. Sanyal, K. 2007. *Rethinking Capitalist Development: Primitive Accumulation, Governmentality and Post-Colonial Capitalism*. Routledge.
R16.Schumpeter (1954): History of Economic Analysis, Harvard University Press
R17. Screpanti & Zamagni (2005): An Outline of the History of Economic Thought, OUP
R18. Sen, A, K. 2009. *The Idea of Justice*, Penguin.
R19. Sen, A, K.2003. *Rationality and Freedom*, Oxford University Press: New Delhi.
R20. Sen, A 1988 "The Concept of Development" *Handbook of Development. Vol I.*
R21. Sen, A 2000 "Development as Freedom" Oxford University Press

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

Course Objectives

CEC51104	INTERNATIONAL TRADE	L	T	P	C
Version 1.0	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Any Undergraduate degree (in 10+2+3 structure) with Economics in UG level				
Co-requisites	--				

1. Students will be able to do in-depth analysis of the dangerous structural imbalances in the world economy and provides an evolution of the policy options available to deal with them.
2. Understanding the rapid globalization of the world economy, the dollar-euro exchange rate, and the relationship between trade deficits, trade protectionism and misaligned exchange rates
3. Understanding the benefits and challenges of globalization before and after the recent global financial crisis, EU-US trade disputes and protectionism, international trade and de-industrialization of the United States and other advanced countries, benefits and costs of NAFTA, EFTA, SAARC in international trade and environmental sustainability, and the debate over U.S. immigration policy, among others.

Course Description

Recognize the cause of trade, sources of the gains from trade and the domestic and international distribution of those gains. Examine instruments and consequences of trade policy measures—including tariffs and quantitative restrictions; Identify the basic difference between inter and intra industry trade, and understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.

Course Content

Unit 1: Trade Theory & Policy under Perfect Competition 15 L

Arbitrage, the concept of absolute and comparative advantage, Gains from trade, Heckscher Ohlin-Samuelson model, Factor price equalization theory, Offer curve, the theory of tariff, Trade policy with domestic distortions, International Political Economy

Unit 2: Trade, Imperfect Competition 20L

Rethinking International Trade, International Trade with Increasing Returns to Scale, Oligopolistic competition and Strategic Trade Theory, The Prebisch Singer argument, Unequal exchange

theories, The open dual economy, Terms of trade and development, Immiserizing growth, Bhagwati – Johnson – Brecher and Alejandro, Trade on growth

Unit 3: Economic integration in world economy 15L

Types of economic integration, Trade creating & trade diverting customs unions, History of attempts at economic integration (EFTA, NAFTA, SAARC), Economic integration of developing countries 17

Unit 4: Emergence of international monetary system 10L

The pre-Bretton Woods period, Emergence and breakdown of Bretton Woods, GATT, World Trade Organization (WTO): Introduction and issues related to developing countries.

References:

R1. Rogoff&Obstfeld. Foundations of International Macroeconomics, MIT Press, (1998)

R2. Dornbusch. Open Economy Macroeconomics, Norton, (1980)

R3. Benassy, Macroeconomics, Academic Press, (1984)

R4. Jones, R. Caves and J. Frenkel (CJF), World Trade and Payments, 4th edition

R5.Ronald Findlay, International Trade and Development Theory, Columbia University Press, (1973)

R6.Paul Krugman, Rethinking International Trade, MIT press, (1994)

R7.Jagdish N. Bhagwati, T. N. Srinivasan and Arvind Panagariya, Lectures on International Trade, MIT Press, (1998)

R8.Helpman& Krugman, Trade Policy & Market Structure, MIT Press, (1989)

R9. Kierzkowski (ed.), Monopolistic Competition and International Trade, OUP, (1984)

R10.Bhagwati, J. (Ed.) International Trade: Selected Readings, Cambridge University Press,Massachusetts, (1981)

R11.Chacholiades, Miltiades, The Pure Theory of International Trade, McGraw Hill, Kogakusha, Japan, (1990)

R12.Cherunilam, Francis, International Economics, Tata McGraw-Hill Publishing Co. Ltd., New Delhi, (2006)

R13. Heller, H. Robert, International Trade: Theory and Empirical Evidence, Prentice-Hall of India Pvt.Ltd., New Delhi, (1988)

R14. Kenen, Peter B. The International Economy, Prentice-Hall of India Pvt. Ltd., New Delhi, (1989) R15. Kindleberger, C.P. International Economics, D.B. Taraporevala Sons & Co. Pvt. Ltd., Bombay,(1977)

R16. Meade, James Edward, A Geometry of International Trade, George Allen and Unwin Ltd.,London, (1952) Roy, P.N. International Trade: Theory and Practice, Wiley Eastern Ltd., New Delhi, (1986)

R17. Sodersten, Bo, International Economics, The Macmillan Press Ltd., London, (1991)

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

CEC51106	INDIAN ECONOMY IN THE GLOBAL CONTEXT	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of development economics and macroeconomics				
Co-requisites	--				

Course Objectives

- **Analyze** the overall Indian economic experience since independence with special emphasis on the shift from a mixed economy towards market orientation
- **Support** the students for various sample related researches and policy prescriptive jobs.
- **Identify** theoretical underpinning of policy making.
- **Develop** critical analysis of existing policies and suggest same.
- **Outline** the problems that plague India as a whole.

Catalog Description

This course will cover the contemporary issues in Indian Economy with primary focus of Post Reform period. The paper will discuss about the changes in India's Remarkable Growth experience after shift of the trajectory from Planned Economy to Market Economy. Along with detailed outlay of the output and employment pattern, this paper will also elaborate the infrastructure and policies as an emerging economy. Finally the Growth versus Distribution debate will be covered with special emphasize on the challenges of the State in Post Globalization era.

Course Content

Unit 1: India as an Emerging Economy (20hrs)

Economic Reforms (Structural adjustment and Stabilization policies; Membership of WTO; Second Generation Reform; High growth rate since 2004 and BRIC membership; Sectoral performance in terms of output and employment; what has become the engine for growth; Macroeconomic Policies and their role: Fiscal Policy, Monetary Policy, Trade Policy etc. (Brief discussion); Distribution Implications - Growth vs. poverty, inequality – jobless growth?

Unit 2: Sectoral Performances in Indian Economy: Output Composition (20hrs)

Agriculture: Change in growth, yield and cropping pattern; Sectoral contribution in GDP; Crop failure – increased vulnerability - Farmers‟ suicide;

Industry: Change in the composition – Identification of high growth industries; composition of Secondary sector; Primary industries (traditional and dirtier) to Modern sophisticated industries (cleaner and technologically advanced);

Service sector growth: skill intensive sector; high return for investment in education (skill accumulation)

Unit 3: Employment Implications of Growth (10hrs)

Changes in Labour Market: Changes in employment and Labor Productivity; Trends in Wages and wage inequality; Increased casualization of labour; increase in labour mobility viz-a-viz loss of social security; High risk and high return in job market; Gender and Labour Market; Countering unemployment by State: Implications of Employment Generation Schemes

Unit 4: Infrastructural Development in India – Public Private Partnership (10hrs)

Infrastructural Development; How to Finance, Maintain and Implement User Right; Conflict between Economic Efficiency and Social Justice; Private investments in Infrastructure; Public Private Partnership: Definition, Structure, and Operation; PPP Initiatives in Developing Countries: Case studies

References:

1. Indian Economy, S. K. Mishra, V. K. Puri, Himalaya Publishing House, 18th edition (2000)
2. S Chakraborty. 1987. Development Planning: The Indian Experience. Clarendon Press.

3. Indian Economy, S. K. Mishra, V. K. Puri, Himalaya Publishing House, 18th edition (2000)
4. Banerjee, Sarmila and Chakrabarti, Anjan. Development and Sustainability: India in a

Global Perspective, eds., Springer, (2013)

5. Economic Survey of India

6. Ghosh, Chandana and Ghosh, Ambar Indian Economy: A Macro-Theoritic Analysis, PHI Learning, (2016)

7. Dreze Jean and Sen, Amartya, India: Economic Development and Socila Opportunity, OUP,

(1995)

8. Amit Bhaduri : The Face You are Afraid to See, Penguin (2015).

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC51108	Econometric Methods	L	T	P	C
Version 1.0	Contact Hours - 52	3	1	0	4
Pre-requisites/Exposure	Basic Knowledge of Mathematics at 10+2 level				
Co-requisites	--				

Course objectives

1. As this course covers the basics of simple regression for cross-sectional data and emphasizes on intuition, students will be efficient in interpreting the empirical examples.
2. The structure of the course makes it ideal for a policy analysis focus.
3. Reduce the gap between what is taught in statistics and econometrics text books and how empirical researchers think about and apply econometric methods.

Course Description

Econometrics is concerned with the application of statistical theory to the analysis of economic data and the estimation of economic relationships. This course intends to expose students to the statistical techniques that economists use for estimating, testing, and forecasting economic relationships. This course covers both an introduction to econometric theory and methods, and a range of applications. Moreover, the consequences of violations of classical assumptions will also be taught.

Course Content

Unit 1: Statistics Prerequisites (7 Hours)

Data - Classification and presentation; Frequency distribution - Diagrammatic representation of frequency distribution; Measures of Central Tendency; Measures of Dispersion; Measures of Skewness& Kurtosis; Bivariate data: correlation, covariance.

Unit 2: Introduction to Econometrics (9 Hours)

What is Econometrics? Steps in Econometric Analysis; Specification of Econometric Model and Assumptions; Basic Concepts of Estimation and Desirable Properties of Estimators; Data for Econometric Analysis.

Unit 3: Simple Linear Regression Analysis (12 Hours)

Definition of Simple Linear Regression Model (SLRM); Ordinary Least-squares (OLS) Estimation of SLRM; Properties OLS Estimators; Statistical Inference in SLRM; Measuring Goodness of Fit; Analysis of Variance on OLS Regression; Interpretation of Regression Results.

Unit 4: Multiple Linear Regression Analysis (12 Hours)

Definition of Multiple Linear Regression Model (MLRM); OLS Estimation of MLRM; Properties of Multiple Regression Coefficients; Measuring Goodness of Fit; Problems of Inference in MLRM; Interpretation of Regression Results.

Unit 5: Heteroscedasticity, Autocorrelation, & Multicollinearity (12 Hours)

Heteroscedasticity: Definition, Consequences, Detection, Remedial Measures. Autocorrelation: Definition, Consequences, Detection, Remedial Measures. Multicollinearity: Definition, Consequences, Detection, Remedial Measures.

Unit 6: Instrumental variables (IV) Estimation and Two Stage Least Square (8 Hours)

Motivation, Omitted variables in a simple regression model, IV estimation of the multiple regression model, Derivation of Two stage least Squares, IV solutions to Errors-in variables problems, Testing for Endogeneity and Testing Over identifying Restrictions.

Text Books:

T1. G. S. Maddala, Introduction to Econometrics., 2nd Edition, Macmillan, New York
T2. Gujarati, D., Basic Econometrics, Tata McGra-Hill, Delhi, 4th Edition
T3: Jeffrey M. Wooldridge, Introductory Econometrics: A Modern Approach, South-Western, Cengage Learning, 2013, 5th Edition.

Reference Books:

R1. B. H. Baltagi, Econometrics. Springer (india) Private Limited; 3rd edition (2013)
R2. William H. Greene. Econometric Analysis. Pearson India; 5th edition (2003)
R3. Sankar Kumar Bhaumik, Principles of Econometrics: A Modern Approach Using EViews. Oxford University Press India (2015)

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

CEC51110	TOOLS FOR QUANTITATIVE AND QUALITATIVE RESEARCH	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Basic Knowledge of Mathematics at 10+2 level				
Co-requisites	--				

Course Objectives

1. To give a strong foundation of research methodology.
2. The structure of the course makes it ideal for a research and policy analysis.
3. To develop minds how empirical researchers think about and apply methods.
4. To equip students with qualitative analytical tools along with quantitative techniques.

Course Description

This course will introduce students to methods of quantitative as well as qualitative economic research using primary and secondary data source. The course will cover theory and practice of doing applied research in economics. The course will familiarize students with sampling techniques, questionnaire design, implementation of field-based studies, including randomized controlled trials. Students will be provided training for carrying out data analysis, including use of data sets such as the National Sample Survey, National Family Health Survey, and Indian Human Development Survey. Students will be expected to design and implement a small study during the course of the semester and will be evaluated on this.

Course Content

Unit-1: Research Process (4 Hrs)

Introduction: Defining need for research, defining research problem, setting research question, different types of research, Research Method and Methodology;
Research Process: Research objective, Literature Review, Information Types and Data Sources, Sample Plan, Data Collection, Data Analysis, Research Report

Unit-2: Research Design (6 Hrs)

Sketching a research design, Variables, Research Hypothesis, Control Groups, Experimental and Non Experimental Hypothesis Testing Research; Different Research Design in Exploratory Research, Descriptive Research, Diagnostic Research, Causal Research; Experimental Design: Control Design, Completely Randomized Design, Randomized Block Design, L-S Design, and Factorial Design

Unit-3: Sample Survey and Data Collection (10 Hrs)

Population and Sample, Census Survey and Sample Survey, Sampling Error, Non-Sampling Error, Sampling Techniques: Non- Probability Sampling, Probability Sampling; Sampling Distribution; Data Collection: Qualitative & Quantitative Data, Primary & Secondary Data, Measurement and Scaling, Measurement Tools, Scaling Techniques; Methods of Data Collection-Questionnaires, Surveys, Archives, Online Data Collection

Unit-4: Basics of Quantitative Research (12 Hrs)

Quantitative approach to data analysis; Estimation: Point Estimation, Interval Estimation, Sample size determination; Hypothesis Testing: Null and Alternative Hypothesis, Type-I and Type-II Errors, One tailed and Two tailed tests, Level of Significance, Critical Region, P-value Approach, Hypothesis testing for Mean, Proportion, Variance, Difference of two means, proportions, variances, Goodness of Fit; Analysis of Variance: One way ANOVA, Two way ANOVA.; Regression Analysis, Multivariate Techniques.

Unit 5: Methods of Qualitative Research (12 Hrs)

Qualitative Approach, Types of Data: Verbal Data, Textual Data, Visual Data and Data beyond Talk; Research Design: Case Studies, Comparative Studies, Retrospective Studies, Longitudinal Studies; Data Collection: Interviews, Focus Group, Narratives, Participant and Non-participant Observation, Ethnography, Film Studies, Photography, Case Studies, Life Histories, Action Research; Qualitative Data Analysis: Transcription, Coding, Grounded Theory, Thematic Analysis, Content Analysis, Conversation, Discourse, Genre and Hermeneutics. 20

Unit 6: Learning Academic Writing (8 Hrs)

Research Report: Layout of the research report, Reference Systems, Research Ethics, Plagiarism, Peer Review; Academic Writing: Writing for journal/book chapter/newspaper article/magazine, Research Proposal writing, writing Abstract of any research, Research Grant Proposals.

Text Books:

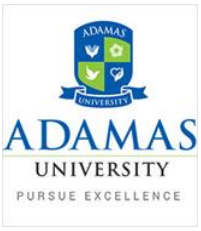
T1. Kothari, C.R., *Research Methodology: Methods and Techniques*, New Age International Publisher, New Delhi, (2004)
T2. Marczyk, G, Matteo, D. and Frstinger, D. *Essentials of Research Design and Methodology*, John Wiley and Sons. (2005)

Reference Books:
R1. Kapalan, D. The Sage Handbook of Quantitative Methodology for the Social Sciences, Sage Publications, London, (2004)
R2. Flick, U. An Introduction to Qualitative Research, Sage Publications, India, (2014)

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40



SEMESTER III

CEC52101	GLOBALIZATION AND CONTEMPORARY ISSUES OF DEVELOPMENT	L	T	P	C
Version 1.0	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Any Undergraduate degree (in 10+2+3 structure) with Economics in UG level				
Co-requisites	--				

Course Objectives

- To familiarize students with cutting edge research topics in the field.
- To provide an introductory survey of economic, political, social, and cultural dimensions of globalization and evaluates their impacts on international relations.
- Prepare students to analyse the international business environment and communicate the outcomes of a multi-stage project orally and in writing.
- Encourage them to critically engage with the issues relating to decision-making and international investment.

Course Description

The course provides an introductory survey of economic, political, social, and cultural dimensions of globalization and evaluates their impacts on international relations. It will help examine the patterns of conflict and cooperation among countries including the influence of international institutions, NGOs, and global corporations, and introduces issues such as global security, environment, concentration of power, wealth and income distribution, cultural and ethnic identities and explores possible peaceful solutions to these global problems. The course will help students understand the development paradigm as a multidimensional process, analysing the conceptual issues about the relationship between growth and development, the role of international organizations, Human Development Index, Poverty, Inequality, Trade Liberalization, Globalization and political change.

Course Content

Unit 1 **[8 lecture hours]**

Development as a concept:

The emergence of the development paradigm - beyond economic growth, development as a multidimensional process, role of the developmental state- the role of international organizations: the IMF, the World Bank and the ILO, conceptual issues about the relationship between growth and development, issues involved in measurement of per capita income- Physical Quality of Life Index, Human development index, its alternative forms and critique. Gender Development Index.

Unit 2 **[14 lecture hours]**

Theories of Development:

Theories of growth – Harrod- Domar vs. Solow Model, Endogenous Growth models: Romar model – Human capital – Total factor productivity – development and growth: a reconciliation Strategies of development, role of developmental State, Nurkse: Vicious circle of poverty and the critical minimum effort hypothesis, big push argument, targeting the big push-balanced vs. unbalanced growth, choice of Technique and Investment criteria, Myrdal and cumulative causation, Dual economic structure, open and disguised unemployment and migration: Lewis Model- extension by Ranis-Fei, Harris-Todaro model of Rural-urban migration and their critiques, sectoral inter-linkage and problem of effective demand. Structural disequilibrium and inflation.

Unit 3 **[12 lecture hours]**

Issues in development and role of institutions:

Land Market & Land Acquisition: Industry versus Agriculture Debate, the SEZ controversy. Problems of acquisition of agricultural land, country experiences; Labour Market: Informal Sector- Importance, Nature of employment, Linkages with Formal Sector; Capital Market: FDI- Modes, types, determinants, technology access & consequences -Imperfections in Capital Market: organized and unorganized capital market; Market Inter-linkage: Effects on Growth and Income Distribution; Institutions and economic development, Provision of Public Good: Education-Health-Infrastructure; Social Security & Inclusion: Employment Generation- Credit Expansion-Other Security Measures- An Introduction to Impact Evaluation; Poverty and Inequality: Poverty: Conceptual Issues-Measurement –Functional Effects, Inequality: Conceptual Issue and Measurement Issues (Kuznets` inverted-U hypothesis: testing and explanation, inequality as a constraint to growth-basics of Galore-Zeira model.

Unit 4 **[10 lecture hours]**

Globalization:

Is globalization an unprecedented phenomenon? Integration of the developing economies into the global order: the structural adjustment program (SAP)- Trade liberalization: WTO- Capital flows and financial integration- Communication technology and the death of distance: offshoring and outsourcing- The global regime of property rights- The global economy and the developmental state.

Unit 5 **[10 lecture hours]**

Globalization and the Developing World:

Globalization and inequality- Globalization and employment- Trade liberalization, dispersion of production and the international division of labour- WTO and the nation state- Trade liberalization, capital flows and environment- Globalization and agriculture- Development and Democracy.

Unit 6 **[06 lecture hours]**

Debating Consequences of Globalization:

The Global Financial Crisis of 2008, and Increasing Inequality; Globalization and Working People – Who are the Winners and Losers? Globalization and Culture – Conflict or Convergence? Globalization and Political Change – More or Less Democracy?

Reference Books:

R1. Contemporary Issues in Globalization. S. Sikdar. Oxford University Press; 2nd edition (2006)
R2. Globalization and Its Discontents. J. Stiglitz. Penguin Books (2002)
R3. In Defense of Globalization. Jagdish Bhagwati. Oxford University Press; 2nd edition (2007)
R4. Economic Development. M.P. Todaro, and S.C. Smith. Pearson India; 10th edition (2011)
R5. Globalization for Development. Ian Goldin, Kenneth Reinert. Rawat Books; (2006)
R6. Globalization and Development. Ashwini Deshpande (ed.) Oxford University Press; 11th edition (2010)
R7. Growth and Development. A.P. Thirlwall. Palgrave McMillan; 8th edition (2010)
R8. Development Economics. Debraj Ray, Oxford University Press; 1st edition (1999)
R9. Recent Economic Growth in India: Contemporary Issues. S. Gupta, and A. K. Mohapatra., Prateeksha Publications (2011)

R10. India: Leading Issues in Economic Development. R. K. Mishra. Academic Foundation; 2nd edition (2014)
R11. Analytical Development Economics: The Less Developed Economy Revisited. K. Basu. Oxford University Press (1998).
R12. The Return of Depression Economics. Paul Krugman, Penguin. (2008)

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

CEC52103	STATISTICAL INFERENCE AND ESTIMATION METHODS	L	T	P	C
Version 1.1	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Understanding of random variables and probability distributions				
Co-requisites	--				

Course Objectives

1. To develop fundamentals idea of sampling theory.
2. To learn different sampling techniques to get an idea about the whole population.
3. To develop an idea about good estimators of the population parameter

Course Description

In the first part of the course the notion of sampling theory is introduced. In the part of the sampling theory the main objective is to find the characteristic of the whole population based of the sample data. For that need we will introduce the notion of statistic of the sample like sample distribution of the sample mean, sample proportion. Then the notion of t, F distributions are discussed. Then requirements of a good estimator for the population parameter is discussed. The requirement include unbiasedness, efficiency, sufficiency. Then the notion of method of maximum likelihood estimation is discussed to decide which estimator satisfy all the criteria to be a good estimator of the population parameter. Then the notion of interval estimation and tests of significance is discussed to explain whether to accept or reject a testing hypothesis. Then the notion of analysis of variance is introduced.

Course Structure

Unit-I **14L**

Sampling Distributions: Concepts of random sampling, Statistics and sampling distributions, illustrations using different distributions, Reproductive properties of the distributions, Some standard sampling distributions, distributions of the mean and variance of a random sample from

normal population, t and F distributions, Distributions of means, variances and correlation coefficient of a random sample from a bivariate normal population.

Unit-II **12L**

Statistical Inference I

Idea of Inference- Point and interval estimations and testing of hypothesis.

Point estimation: Requirement of a good estimator, notions of mean square error, unbiasedness, principles of sufficiency, minimum variance unbiasedness and best linear unbiasedness, principal of sufficiency, Lehmann-Scheffe theorem, properties of minimum variance unbiased estimators, asymptotic theory and consistency, Cramer-Rao lower bound, Rao-Blackwell theorem.

Unit-III **14 L**

Statistical Inference II

Methods of moment, methods of least square estimation, methods of maximum likelihood estimation, methods of minimum chi square estimation, MLE in exponential families, Invariance property of MLE, Maximum likelihood estimators using Fisher's scoring method.

Interval Estimation: Methods of contructing confidence intervals, confidence intervals based on pivotal quantity, Confidence interval by inverting acceptance region of a test, optimality of a confidence interval estimators, Maximum expected length confidence interval.

Unit- IV **10L**

Tests of Significance

Null and alternative hypothesis, simple and composite hypothesis, critical region, Type I and type II error, level of significance, p-value, power.

Tests related to single Bionomial proportion and poisson parameter, two Bionomial proportions, and poisson parameters, the mean and variance of a single univariate normal distribution, two independent normal distributions and a single Bivariate normal distribution, Regression and correlation coefficients of a single Bivariate normal distribution.

Unit- V **10L**

Analysis of Variance (ANOVA)

Basic idea of linear model, Heterogeneity and analysis of variance, linear hypothesis, orthogonal splitting of total variation, selection of valid error, Applications of the ANOVA technique to one-way classified data, two-way classified data with equal number of observations per cell, testing simple regression coefficients, tests for parallelism and identity, correlation ratio, linearity of simple regression, Multiple correlation and partial correlation coefficients.

Text Book(s):-

TH-1. William G. Cochran, Sampling techniques, John Wiley, 2007.

TH-2. Johnson, N.I & Kotz S.(1970): Distributions in statistics, John Wiley.
TH-3. Goon A. M., Gupta M. K. and Dasgupta B. Fundamentals in Statistics (Vol-1).

TH-4. Goon A. M., Gupta M. K. and Dasgupta B. An outline of Statistical Theory (Vol-2).

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52105	ADVANCED ECONOMETRIC METHODS	L	T	P	C
Version 1.0	Contact Hours: 60	3	1	0	4
Pre-requisites/Exposure	12^{th} level English, Basic knowledge of Econometrics				
Co-requisites					

Course Objectives

- To develop the knowledge of theoretical aspects of important advanced econometric methods.
- To make students understand when and how to apply a particular advanced econometric technique, such as different time series or panel data methods.
- To make students understand the intricacies of different advanced econometric analytical tools so that they are aware of the advantages and limitations of different methods before they apply them to practical data sets.
- To enable students acquire adequate theoretical knowledge and skill for data analysis required for their higher studies and/or profession.

Catalog Description

This course is designed to provide the fundamentals of Econometrics for a post-graduate Economic course. Students will be introduced to fundamentals of econometrics applied to Cross-section, Time series as well as panel data analysis. After advancing this course, students will be equipped to deal with empirical economics and applied the techniques to a large number of Economics as well as other social science data.

Course Content

Unit 1: Dummy Variable Regression Models (10 Hours)

Dummy Variables definition, Simple regression model with Dummy Variable (qualitative) with two categories, with more than two categories- intercept shifters, Dummy Variable trap, Interaction of two categorical variables-interaction Dummy; Interaction of categorical and continuous (quantitative) variables- slope shifters; Comparing two regression-Chow test

Unit 2: Qualitative Response Models (9 Hours)

Models with Dummy dependent variable, Linear Probability Model (LPM), limitation of LPM, Logit models, Logistic curve, Probit model; Estimation of Probit and Logit models; Comparison between logit and probit model

Unit 3: Model Specification and Diagnostic Testing (9 Hours)

Model Selection Criteria; Types of Specification Errors; Consequences of Model Specification Errors- Omitting a Relevant Variable, Inclusion of an Irrelevant Variable; Tests of Specification Errors; Errors of Measurement; Incorrect Specification of The Stochastic Error Term; Model Selection Criteria - The R2 Criterion, Adjusted R2 , Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC)

Unit 4: Time Series Econometrics (17 Hours)

Stochastic process, Stationary stochastic process, White noise stochastic process, Non-stationary stochastic process or Random Walk, Unit Root stochastic process; Test for stationarity, Autocorrelation Function (ACF), Partial Autocorrelation Function (PACF), Unit Root test, Dickey-Fuller test, Augmented Dickey-Fuller test (ADF), Source of non-stationarity Cointegration and Error Correction Mechanism; ARIMA forecasting, AR, MA, ARIMA modelling of time series data the Box-Jenkins methodology; Vector Auto Regressive (VAR) model, specification of VAR model, estimation of VAR model, forecasting with VAR, Vector Error Correction model; Granger Causality test, Granger Causality in VAR; Modelling Volatility – ARCH and GARCH Model

Unit 5: Panel Data Model (8 Hours)

Definition and usefulness of Panel data; Panel data models: the Constant Coefficients Model, Pooled repeated cross-section model, within and between estimators, the Fixed Effect Model (FEM), the Random Effect Model (REM), Hausman test, Breusch-Pagan test

Unit 6: Simultaneous Equations System (7 Hours)

Structural Equation Models: Specification, Endogenous, Exogenous and Predetermined variables; OLS estimation of Simultaneous Equations System: simultaneity bias; Structural and Reduced form equations, Identification problem: Rank and Order condition; Methods of estimation: Indirect Least Squares (ILS), Two-Stage Least Squares (2SLS)

Text Books

T1. Maddala, G.S. Introduction to Econometrics, John Wiley & Sons Ltd, 2009

T2. Gujarati, D. Basic Econometrics, McGraw Hill Higher Education, 2003
T3. Wooldridge, J. Econometric Analysis of Cross Section and Panel Data, The MIT Press, 2010

Reference Books:

R1. Baltagi, B. Econometric Analysis of Panel Data, Wiley, 2004
R2. Johnston, J. and J. Dinardo: Econometric Methods, McGraw Hill, 1997
R3. Enders, W. Applied Econometrics Time Series, John Wiley and Sons, 2004
R4. Hamilton, J. Time series analysis, Princeton University Press, 1994

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	10	20	30	40

CEC52107	ECONOMETRIC ANALYSIS OF DATA	L	T	P	C
Version 1.0	Contact Hours: 60	2	0	3	4
Pre-requisites/Exposure	12th level English, Basic knowledge of Econometrics				
Co-requisites					

Course Objectives

- To develop the understanding of the link between the theoretical knowledge of econometrics and their application in real Economic data.
- To develop the knowledge of handling the software Stata to analyse different cross section data containing both quantitative and qualitative variables, testing different economic relationships and critically interpret the estimation outcomes.
- To build the knowledge of handling Stata to analyse time series and panel data and apply various advanced econometric techniques to test different relationships and critically interpret the results.
- To generate the skill of practical data analysis, assessing reliability of any given data set and using accurate techniques to forecast future trend of a variable. This course will help to make students ready to assume the role of data analysts in any research organization or corporate sector.

Course Description

Econometrics analysis of Data is a course designed for the students to apply their theoretical knowledge of econometrics in real Economic data. Students will be introduced one or two software will be able to apply them in empirical economics using data.

Course Content

Unit1: Learning a Basic Software like Stata (4 Hours)

A Brief Introduction to Stata: Getting Help and Information; Running Stata; Dataset in Stata; Stata Commands; Estimation; Graphics; Exercise

Unit 2: Data Description in Econometrics (7 Hours)

Introduction to Data analysis; data mining and Filtering; Descriptive analysis of econometric Data; Graphical exploration; Distributions of Econometric data; Summary

Unit 3: Regression (14 Hours)

Simple regression: Introduction; Modelling simple regression; Linear regression and least square principle; Regression with graphics; Outliers,leverage and influence; Summary Partial regression: Interpreting multiple regression coefficients; Introduction; Multiple regression line; partial regression and partial correlation; The t-test in multiple regression; Summary Model selection and misspecification: Introduction; Omitted variable bias; Testing zero restriction; The use of dummy variables; Summary

Unit 4: Regression with Cross-section Data (15 Hours)

Heteroscedasticity: Introduction; Diagnostic test for Heteroscedasticity; Dealing with Heteroscedasticity; Summary Categories, counts and measurements: Introduction; egression on a categorical variable: Using dummy variable; Multiple regression on categorical variables; Summary; Logit transformation, modelling and regression: Introduction; The logit transformation; The linear probability vs logit regression; Graphical analysis; Summary

Unit 5: Regression with time-series data (14 Hours)

Trends, spurious and transformations to stationarity: Introduction; Stationarity and nonstationarity; Random walk and spurious regression; Testing for stationarity; Transformation; Summary Misspecification and autocorrelation: Introduction; Detecting autocorrelation; what to do about autocorrelation; Summary; Co-integration and error correction model: Introduction; What is co-integration? Testing for cointegration; The Error correction model; Summary

Unit 6: Applications in Multivariate Data Analysis (6 Hours)

Introduction: Cluster Analysis; Factor Analysis; Multivariate Regression

Text Books:

T1. Sophia Rabe-Hesketh and Brian Everitt ,A Handbook of Statistical Analysis Using Stata, Chapman and Hall

Reference Books:

R1. Chandan Mukherjee, Howard White and Marc Wuyts ,Econometrics and Data Analysis for Developing Countries, Routledge

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Attendance	Mid Term	Presentation/Assignment/ etc	End Term
Weightage (%)	10	20	30	40

CEC52119	ECONOMICS OF PRIVATE HEALTH MARKET	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Basic Knowledge of Microeconomics at UG level				
Co-requisites	--				

Course Objectives

1. To orient students to understand 'health' as a 'consumer goods' and how to optimize its consumption, production, and the market for it.
2. To learn how microeconomic theories are applied to analyze the private healthcare market, its input market, technological innovation, etc.
3. To show how choice and pricing takes place in insurance industry from the angle of 'information asymmetry'
4. To enable students to deal with policy issues related to health economics with command

Course Description

This course provides an introduction to the economic analysis of the health care market. The course is designed to provide a micro-foundation of health economics. For that reasoning and tools of microeconomics are applied to the study of health and medical care and implications for individual health behaviour. Moreover, this course will draw on models of behaviour under asymmetric information, imperfect competition, agency and optimization under uncertainty. Some of the other related issues like the functioning of hospital industry, pharmaceutical industry, and effect of technological innovation in health care market will also be discussed.

Course Content

Unit- I: An Overview of Health Economics **[4 Hours]**

- What is Health Economics, Why is Health Economics important;
- Key economic concepts related to health economics;
- Concept of hospital incentives and competition and physician agency

Unit-II: Demand for Health and Health Care **[10 Hours]**

- Demand for Health: Health as a form of Human capital,

- Grossman's Investment Model of Health: Marginal efficiency of health capital, Wage effect; Consumption Model; Factors that affect the investment in health, Empirical evidence concerning the Grossman model.
- Demand for Health Care: Health care market, Information asymmetry, Price Elasticity, Aggregate demand for health care

Unit-III: Health Care Production, Cost, and Supply [8 Hours]

- Production: The Healthcare Production Function, Elasticity of Input Substitution, Nature of Production.
- Cost: Short run costs for a medical firm, Short-run cost curve, Long-run costs, LACC.
- Supply: Factors that affect supply, Labour market for Physician, The market for Nurses.

Unit-IV: Information Economics in Private Health Market –I [10 Hours]

- The Insurance Market: Demand for insurance, declining marginal utility of income, Uncertainty, Risk aversion, Uncertainty and insurance, Comparing insurance contracts.
- Moral Hazard: Problem of Moral Hazard in private health market, A graphical representation of moral hazard, How to limit moral hazard, Evidence of moral hazard in health insurance, The trade-off between moral hazard and risk reduction, The upside of moral hazard.

Unit-V: Information Economics in Private Health Market –II [10 Hours]

- Adverse selection: Akerlof's market for lemons- The intuition behind the market for lemons, a formal statement of the Akerlof model, The adverse selection death spiral, When can the market for lemons work?
- Adverse selection: the Rothschild–Stiglitz model- The full-insurance line, The zero-profit line, The feasible contract wedge, Finding an equilibrium, Heterogeneous risk types, Indifference curves for the robust and the frail, Information asymmetry and the pooling equilibrium

Unit-VI: Issues in Health Industry [10 Hours]

- The Hospital Industry: The rise and decline of the modern hospital, The relationship between hospitals and physicians, The relationship between hospitals and other hospitals, Non-profits and hospital production, The relationship between hospitals and payers.
- Pharmaceutical Industry: The life cycle of a drug, the uncertainty and costs of drug development, Patents, Induced innovation, Regulation of the pharmaceutical industry, Technology and the price of health care.
- Health technology assessment: Cost-effectiveness analysis, evaluating multiple treatments: the cost-effectiveness frontier, measuring costs, measuring effectiveness, Cost–benefit analysis: picking the optimal treatment, valuing life.

Text Book:

Health Economics; Jay Bhattacharya, Timothy Hyde, Peter Tu; Palgrave Macmillan Press, 2014.

References:

Essentials of Health Economics; Diane M. Dewar; Jones and Bartlett Publishers, 2010.

The Oxford Hand Book of Health Economics; Edited by Sherry Glied and Peter C. Smith; Oxford University Press, 2011.

Principles of Health Economics for Developing Countries, William, Jack, World Bank Institute Development Studies, 1999.

World Development Report, Investing in Health, The World Bank, 1993.

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

CEC52111	ECONOMICS OF PUBLIC HEALTH	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of microeconomics				
Co-requisites	--				

Course Objectives

- **Apply** economic concepts and models to the fields of demand for health**,** demand for health services, demand for health insurance, provision of health insurance and provision of health care
- **Interpret** with clarity and precision applied microeconomics.
- **Discuss**, **analyze** and critically address economic aspects of health care organizations.
- **Discuss** empirical evidences in case of health across countries and economies.
- **Analyze** policy making at national and international level using empirical evidences.

Catalog Description

Public Health is increasingly being viewed as central to issues of development like productivity, income distribution, employment, and knowledge as an input to production. This paper covers the interface between economic theory and public health in order to unravel how it affects the quality of labour. The management and mitigation of infectious diseases as an application of theory of externality will be covered. Different case studies around financing public health facilities along with some global measures which can be used as yardstick of development is coming under the purview of the economics of public health.

Course Content

Unit 1: Market Failure & Externality (10 Hours)

Externality in Health Sector – Economics of Communicable diseases; Market Failure and Compulsory Vaccination; Morbidity and Quality of Labour;

Unit 2: Demographic History of the Society and Quality of Labour (10 Hours)

Demographic Transition Theory – Mortality and Morbidity; Interaction between Health, Environment, Society and Economy; Epidemiological Transition Theory;

Unit 3: Economic Growth and Quality of Labour (10 Hours)
Endogenous Growth Theory – Total Factor Productivity – Public Health and Development;

Unit 4: Public Investment in Health Care and Economic Development (10 Hours)
Health care financing in Public Sector; Causes of Public Investment in Health Care – Why Private will not operate? – Case Studies: Europe, Japan, South Korea, USSR and China

Unit 5: Globalization, Global Health Scenario and Public Health Care System (20 Hours)
Human Development Index and Global Health Scenario, Global Burden of Diseases, Concepts of DALY and QALY; British Health Care System to Obama Care; Case studies on Health Care financing of EU.

Reference Books

1. World Health Organization (2000), *Report of Commission on Macroeconomics and Health*;
2. World Health Organization (2010), *Socioeconomic Determinants of Health;*
3. Bhattacharya, J., Hyde, T., & Tu, P. (2014). *Health economics*.

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52113	ECONOMICS OF EDUCATION	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of microeconomics				
Co-requisites	--				

Course Objectives

1. **Identify** the interface between economic theory and education in order to unravel how education contributes to socio-economic development.
2. **Analyze** a range of issues such as the relationship between quality of education and economic growth.
3. **Compare** and **contrast** empirical evidences in case of education across countries and economies.
4. **Identify** the theoretical underpinning behind all national and global policies.
5. **Appraise** policy making at national and international level using empirical evidences

Catalog Description

Education is increasingly being viewed as central to issues of development like productivity, income distribution, employment, and knowledge as an input to production. This paper covers the interface between economic theory and education in order to unravel how education contributes to socio-economic development. Moving beyond the neo-classical approach, it uses alternative theoretical perspectives to analyze the linkages between education and society. With a blend of theory and policy wide range of issues such as the relationship between quality of education and economic growth, a critical overview of the input-output approach and human capital theory, education as a public good the specific features of the education market, the nature of competition in this market, and the role of the government funding, delivery, and regulation of education the role of the public and private sectors will be covered under the domain of this paper.

Course Content

Unit 1: Education and Economics: An Introduction, Education and Public policy (15 hours)

Three objectives of Education: Expansion, Excellence and Inclusion; Education in Economic Theory; Human Capital Approach; Education in Growth Theory; Education in an Input-output frame- production function; Critique to Human Capita Approach – Capability, Social choice; Education as public good; and Market and Education – market failure; Policy issues and governance.

Education as Public good; public versus private; Mode of Provisioning - Public versus private; Higher education as public good or mixed good or merit good; primary education as merit good; Global private good; commoditization of education – WTO & GATS framework; Higher education as non-merit good;

Public funding; Education Financing: Critique to Neo-liberal Ideology; Private Participation – Pure private, Public-private partnership;

New public Management: Governance Reforms; Choice of school, efficiency and quality; Quality Assurance Mechanism; Indian Education system; Question of Autonomy; Globalization and Higher Education Market.

Unit 2: Human Capital Approach to Education (10 hours)

Developments in the theory of human capital; Rate of return – Estimation, Private versus social return; General Earning function; Wage and rate of return; Income distribution – egalitarian and elite;

Unit 3: Production Function in Education (10 hours)

Production function and productivity debates in Education; Human versus Physical capital; concept of input and output in delivery of education; University as Non-profit organization; Education production function; Teaching Learning process – concept of Efficiency and Productivity;

Unit 4: Education and Growth Theories (10 hours)

Technology, knowledge and growth; Solow's model and technology; Endogenous growth theory; Technology, knowledge and human capital; Technology, knowledge and Growth – Linkages in Romer's Model; Knowledge in new growth theories; Human Capital - Measurement and quality;

Unit 5: Critique of the Human Capital Theory, : Market and Market Failure in Education (15 hours)

Education as screening device – signaling in job market – model; who will invest? Investment in education – social choice approach, collective choice approach, capability approach; Human

capital versus human development – Capability and capital; Critique to Sen's Capability approach; critique to human capital theory – Marxian Perspective;

Market and Market failure in Higher Education; Information asymmetry, Adverse selection & Moral Hazard; Knowledge and Market Failure; Market Failure – imperfect capital market; Quasi-market for Higher Education; features of the market; freedoms for providers; Market and equity;

Reference Books

1. Saumen Chattopadhyay (2012): Education and Economics: Disciplinary Evolution and Policy Discourse, OUP

2. Gruber J. (2011): Public Finance and Public Education. Worth publishers

3. *Annual Report of Department of School Education & Literacy Department of Higher Education*, Ministry of Human Resource Development. Govt. of India.

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52115	FINANCIAL INSTITUTIONS AND MARKETS	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	UG Level Knowledge of Accounting and Finance				
Co-requisites	-				

Course Objectives

This course aims to make a student acquire knowledge on the following and apply them in workplace and evaluate the merit of different rules and mechanism in the system as a whole:

1) Different classes of securities and their risk-return profile,

2) Working of the security markets and the trading mechanism and

3) The regulatory guidelines

Course Description

This course visualizes how the saved income of the individuals and corporate entities takes the form of financial securities and enter the production system of the country as capital. This course discusses classification of above securities with respect to their risk and return profile and the tenure of investment. In the process the price discovery of these assets through the digital platforms as a result of trading activities within the regulatory ambit are also discussed keeping in view the interests of the issuers as well as the investors. The course covers both money market and capital market.

Course Content

Unit 1: Introduction to Income, Savings and Capital **15 Lecture Hours**

Concept, components and measurement of National Income

Circular Flow of National Income;

Concept of Production Function;

Role of Capital in Production;

Savings-Investment Identity

Unit 2: Introduction to Financial Assets **20 Lecture Hours**

Concept of Financial Assets and their Risks;

Relationship between Capital, Investment and Financial Assets;

Classification of Financial Assets according to Risk-Return Profile;

Concept of Derivatives;

Overview of financial asset markets and derivative markets;

Introduction to Regulatory Role of the Government

Unit 3: Money Market **15 Lecture Hours**

Concepts and Mechanisms;

Guidelines of Reserve Bank of India;

Money Market instruments;

Role of Clearing Corporations of India

Unit 4: Capital Market **10 Lecture Hours**

Introduction to Stock and Debt;

Futures, Forward Rate Agreements and Options on Stocks and Interest Rates;

Risk of non-delivery transactions;

Overview of Stock Exchanges and SEBI;

SEBI‟s Risk Management System; Regulation of intermediaries

References

1. Fabbozi F., F. P. Modigliani and F. Jones (2007) Foundation of Financial Markets and Institutions. New York: FT Prentice Hall.
2. Fredrick S Mishkin and Stanley Eakins (2012) Financial Markets and Institutions, Boston: Prentice Hall

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52119	PRINCIPLES OF MODERN BANKING	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of UG Level Accounting and Financial Management				
Co-requisites	-				

Course Objectives

1. This course plans to discuss different concepts, theories and problems related to banks, their products, their functions as intermediaries and the concerned regulatory institutions. (U)

2. This course plans to groom the learner's mind set to think upon the existing products, systems and frames in order to detect some issues, or problems, find solutions, conduct and suggest policy measures. (Ap).

3. **Create** strategies as part of policy manual to handle new situations.

Catalog Description

This course discusses operations of the commercial banks with focus on India. In so doing, it aims to acquaint the students with market practices and also with research on functional areas of the commercial banks such that they feel at home while applying to a bank for job.

Course Content

Unit 1: Introduction **20 Lecture Hours**

- Concept of Bank; Types of Banks;
- Concept and Example of Commercial Bank;
- Concept and Example of Cooperative Bank;
- Concept and Example of Rural Regional Bank;
- Concept and Example of Private Bank;
- Concept and Example of Investment Bank;
- Concept and Example of Central Bank;
- Concept and Example of Non-Bank Financial company
- Concept and Example of Bank Conglomerate

Unit 2: Main Banking Businesses: Deposits and Loans **14 Lecture Hours**

- Introduction to Banking Business;
- Types of Deposits; Rules for Opening and Operating Deposit Accounts;
- Pricing of Deposits; Deposit Insurance;
- Types of Loans; KYC Norms for Loan Accounts; Pricing of Loans;
- Project Finance; Credit Appraisal, Approval and Monitoring

Unit 3: Bank Regulation and Supervision **14 Lecture Hours**

- Concept of Regulation;
- Reserve Bank of India;
- Basel Committee;
- Federal Reserve System of USA;
- Financial Services Authority of UK;
- European Central Bank;
- Concept of Financial Crisis as Failure of Regulation

Unit 4: Bank Risk Management in Lending & Operations - Concept of Risk Facing Banks
12 Lecture Hours

- Concept of Credit Risk
- Measure of Credit Risk;
- Management of Credit Risk;
- Concept of Operational Risk;
- Measure of Operational Risk;
- Management of Operational Risk

Reference Books

1. Koch, T and McDonald S S (2015) Bank Management, Cengage Learning
2. Saunders A and M M Cornett, (2008). Financial Institutions Management – A Risk Management Approach, Boston: McGraw-Hill
3. Thompson, J and K Mathews, (2005). The Economics of Banking, John Wiley and Sons

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

Course Objectives

CEC52119	CORPORATE FINANCE	L	T	P	C
Version 1.0		4	0	0	4
Pre-requisites/Exposure	UG Level knowledge in Accounting and Finance				
Co-requisites	-				

This course plans to discuss different concepts, theories and problems related to financing decisions in the globalized markets and from globalized institutions.

Train the learner's mind set to apply the existing models/frames to resolve an issue.

Expose the learner to interdisciplinary research.

Groom the learner's mind to innovate upon the existing frame of understanding.

Catalog Description

This course will start with forms of organizations – Sole Proprietorship, Partnership, Company, others; Role of a Financial Manager in a business organization: Decision areas – Capital Budgeting decisions, Working Capital Management decisions, Financing decisions, and Dividend decisions; Financial Institutions and Markets: Brief introduction of the roles of different financial institutions and markets; Goals of a business organization: Primary goal, Secondary goal, Goals of a corporate form of business: Profit Maximization vs Shareholders‟ Wealth Maximization, Agency Problem – Conflicts and Resolutions.

Course Content

Unit-1: Organizing a Business **20 Lecture Hours**

1. Forms of Organizations – Sole Proprietorship, Partnership, Company, others
2. Role of a Financial Manager in a business organization
3. Decision areas – Capital Budgeting decisions
4. Working Capital Management decisions,
5. Financing decisions
6. Dividend decisions
7. Financial Institutions and Markets
8. Roles of different financial institutions

9. Goals of a business organization: Profit Maximization vs. Shareholders‟ Wealth Maximisation
10. Agency Problem – Conflicts and Resolutions

Unit-2: Sources of Finance **10 Lecture Hours**

1. Internal sources, External Sources and Owned Sources
2. Capital Market
3. Hybrid Products
4. Structured Products
5. Money Market - Short Term Sources: Trade Credit, Factoring, Bills of Exchange, Commercial Paper
6. Banks and Financial Institutions

Unit-3: Issue Procedure and Valuation of Stocks and Debts **15 Lecture Hours**

1. Stocks and the Stock Market
2. Book Values, Liquidation Values, and Market Values
3. Valuation of Stocks
4. Valuation of Debt Instruments
5. Issue procedure of Sticks and Debt Instruments: Public Offer, Private Placement
6. Role of Investment Banks in issuing securities by their clients
7. Role of Stock Exchanges in Public Offers
8. SEBI Guidelines

Unit-4: Short Term Financing-Working Capital Management **15 Lecture Hours**

1. Concepts of Working Capital
2. Components of Current Assets
3. Permanent and Variable Working Capital
4. Determinants of Working Capital
5. Approaches for Working Capital Management
6. Estimating Working Capital Needs
7. Current Assets Financing Policy
8. Operating and Cash Conversion Cycle

Texts

Brealey, R.A., Myers, S.C. and Allen, F. (2014). Principles of Corporate Finance, 11thEd, McGrawHill. New York

www.rbi.org.in

www.sebi.gov.in

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52621	INTERNSHIP	L	T	P	C
		0	4	0	4
Pre-requisites/Exposure	Knowledge of the chosen subject				
Co-requisites	-				

Course Objectives

1. To generate wide idea about the ethics of internship.
2. To practice technical implications of economics knowledge in practical field.
3. To apply the knowledge of literature in skill based curriculum.
4. To create an experienced job-ready graduate trainee.
5. To understand the importance of multitasking in the job market.

Catalog Description

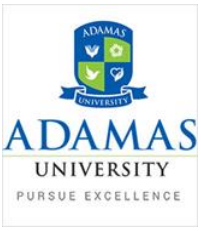
Summer internship will be of one month duration, during the summer vacation after the end semester exams of Semester II. The students will be given a list of internship opportunities with NGOs, civil society organizations, think tanks, governmental agencies and private companies. At the successful completion of summer internship, students have to submit a detailed internship report. Students will receive certificates both from the organization and the University.

Course Content

Project/ Attending Summer school/ Internship.

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	00	00	00	100



SEMESTER IV

CEC52102	INTERNATIONAL FINANCE	L	T	P	C
Version 1.0	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Any Undergraduate degree (in 10+2+3 structure) with Economics in UG level				
Co-requisites	--				

Course Objectives

1. To impart knowledge on the theories and activities connected to capital account of balance of payments.
2. The learner will be able join the international treasury divisions of banks and non banking financial institutions as researcher, analytic or dealer

Course Description

This course revolves around the theories and activities connected to capital account of balance of payments. It deals with international capital transfer and the role of international financial agencies and institutions in determining or regulating transactions in the international financial system. It will make a student comfortable in applying for a job at foreign bank like HSBC or a global institution like IMF or pursue higher studies in international finance and banking.

Course Content

Unit-1: Departure from International Trade 20 L

Recapitulation of Balance of Payments; Financing Current Account Transactions; Dynamic Nature of Capital Account Transactions- i) Role of Foreign Currency Interest Rate, ii) Role of Exchange Rate; International Financial Markets; Exchange Rate Determination; Introduction to Currency Derivatives

Unit-2: The International Financial Environment 13 L

Multinational Financial Management; International Flow of Funds; International Financial Markets; Exchange Rate Determination; Currency Derivatives

Unit-3: Exchange Rate Behaviour 13 L

Government Influence on Exchange Rates; International Arbitrage and Interest Rate Parity; Relationships among Inflation, Interest Rates, and Exchange Rates

Unit-4: Exchange Rate Risk Management 14 L

Forecasting Exchange Rates; Measuring Exposure to Exchange Rate Fluctuations; Managing Transaction Exposure; Managing Economic Exposure and Translation Exposure

Text Books

Jeff Madura, *International Financial Management*, Thomson, Australia, (2008)
SoumyenSikdar, *Principles of Macroeconomics*, Oxford University Press, New Delhi, (2006)

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

CEC52104	ECONOMICS OF SOCIAL ISSUES	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Economic relevance of contemporary social issues and problems.				
Co-requisites	--				

Course Objectives

- This course introduce the students the economic relevance of contemporary social issues and problems.
- To strengthen the knowledge of the students about concepts of Modernity, social change followed by in-depth understanding of gender issues in society.
- This course endeavours to build a sound base in economic sociology by emphasizing on issues of environmentalism, social movements and globalisation.
- This course also provides a detailed understanding about the methodological approach towards heterogeneity and local interests, thereby providing a critique of the capitalist notions of justice, rationality and equality.
- It also interrogates the concept of gender and sexuality and its significance in society.

Course Description

This course introduces the students with the critical understanding about the concept of economic sociology by studying issues like capitalism, modernity, and globalization. Capitalism, aided by modernity and globalization, had promised a universal solution to all the social problems of mankind. However, with time, it has given rise to a new set of contradictions and problems that

are themselves products of this age, characterized by economic engines of growth and technology. Accordingly, new approaches have come up to tackle these social problems related to gender, race, nature etc. This course attempts towards such a new methodological approach towards heterogeneity and local interests, thereby providing a critique of the capitalist notions of justice, rationality and equality.

Course Content

Unit 1: Modernity and social changes 10 lecture hours

Modernity, capitalism, economic problems of poverty, unemployment and inequality – growth as the solution, from growth to development, emphasis on social indicators, human development - capability approach

Unit 2: Globalization and social changes 10 lecture hours

Dimensions of Globalization, Beyond economic problems, multiculturalism, urbanization, migration, social disorganization, exclusion, displacement, refugee problems, informalization and casualization of labor, demographic problems, population explosion, communalism, secularism, regionalization, consumerism, stratification

Unit 3: Gender issues 10 lecture hours

Gender and sex, biological determinism, socialization, patriarchy, male gaze, gender mainstreaming, gender and work ------ Paid and Unpaid work (Economic empowerment of women), Forms/ strands of feminism, Understanding concept of Masculinity – Definition and stereotyping, Rights of LGBT Community

Unit 4: Social justice 10 lecture hours

Idea of justice – a brief chronological overview, Equality and Equity, egalitarian view, utilitarian view, Rawlsian view, Sen's idea of justice

Unit 5: Social movements 10 lecture hours

Tribal unrests, social movements- Peasant, Dalit, Women's movement, Environment movements (Naxalbari movement in India: case study)

Unit 6: Environmentalism **10 lecture hours**

The mutual relation between man and nature, Relation between environment and economy, mainstream movements and critiques, animal rights, sustainable development

Text Books

1. Breman Jan .Footloose Labour: Working in India's Informal Economy (Contemporary South Asia) Cambridge University Press, 1996.
2. Giddens, A 1997 Sociology Cambridge: Polity Press
3. Shah Ghanshyam, Social Movements and the State, Sage, New Delhi, 2002.
4. Ahuja, Ram (2000). Social Problems in India, New Delhi: Rawat Publications.
5. Abbott Pamela & Wallace, Claire, An Introduction to Sociology: Feminist Perspectives, Routledge, 01-Jan-1990
6. Connell. R.W. Masculinities, Cambridge: Polity Press, 1995
7. Singh K.S. Tribal Movements in India Vol. I & II, New Delhi: Manohar Prakashan, 1982.
8. Gail Omvedt, Dalits and the Democratic Revolution, Sage, New Delhi, 1994.
9. Mehta. S.R. (Ed.). (1997). Population, Poverty and Sustainable Development, Jaipur: Rawat

Modes of Examination: Assignment/Quiz/Film review (documentaries)/ Project/Group Discussion/ Presentation/Extempo/Written Exam

Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52106	MULTIVARIATE DATA ANALYSIS	L	T	P	C
Version 1.0	Contact Hours: 60	3	1	0	4
Pre-requisites/Exposure	12th level English, Basic knowledge of Econometrics				
Co-requisites					

Course Objectives

- Build knowledge of theoretical and practical aspects of vital multivariate econometric methods.
- Make students understand when and how to apply a multivariate econometric model and what kind of limitations they may face.
- Develop the knowledge of different model specifications and will be able to accurately interpret estimation outcomes of multivariate models.
- Develop the skill to understand different project reports and journal articles involving multivariate data analysis and methods that they have already studied in their course

Course Description

Multivariate data analysis is a specialized branch in Econometrics and Statistics to deal with the problems in involving multiple variables. Students will be introduced basic mathematics and statistics course as a pre-requisite for Multivariate data analysis. Students will be introduced different concepts like Cluster Analysis, Factor Analysis, Principal Component Analysis an Multivariate regression analysis as they advanced in the course.

Course Content

Unit 1: Introduction and Overview (5 Hours)

Multivariate Analysis: A broad Definition and Narrow Definition; Concept of Variate; Choice of measurement scale; Summary Notes

Unit 2: Some Basic Statistical and Mathematical concept (25 Hours)

Univariate Data analysis; frequency distribution; Normal Distributions; Parameters and Statistics; Measurement of variability; Note on Estimation; Characteristics of Bivariate Data; Range restriction, pearson correlation in special cases; The Eta_Square measure; Phi coefficients; The Z` transformation; Linear regression; Statistical Control: A first look at Multivariate Relations. Basic definitions of Matrix; Basic Matrix Operations; Application of Matrix Algebra, dot product, matrix product, determinant, eigenvalues, eigenvectors, norm, inverse

Unit 3: Cluster Analysis (10 Hours)

Methods in Cluster Analysis; Graphical Representations; Distance Matrix; Clustering Variables; Summary

Unit 4: Principle Component Analysis (10 Hours)

Introduction; Illustration of PCA for two variables; Outline and examples of PCA; Illustrations and Further readings; SummarY

Unit 5: Factor Analysis (10 Hours)

Introduction; Latent variable Models; Linear Single Factor model; General linear factor model; Choice of factors; Rotations; Factor Analysis for Binary Data; Factor analysis for ordered categorical data; Further readings; Summary

Text Books:

T1 Ira H. Bernstein , Applied Multivariate Analysis, Springer-Verlag ,1988
T2. David J. Bartholomew,Fiona Steele,Irini Moustaki,Jane I. Galbraith, Analysis of Multivariate Social Science Data, Taylor and Francis,2008.

Reference Books:

R1. Alvin C. Rencher, Methods of Multivariate Analysis, Second Edition, Willey and Sons,2002

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Attendance	Mid Term	Presentation/Assignment / etc	ETE
Weightage (%)	10	20	30	40

CEC52108	ANALYSIS OF BIG DATA	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Statistics, Analysis of data (structured and unstructured),				
Co-requisites	Advance Statistical concepts				

Course Objectives

- To learn, understand and practice analysis of large volume of data using modern tools and techniques focusing on applications.
- To apply analytics on structured and unstructured data.
- Apply some machine learning and nlp techniques to understand the pattern to draw insights
- To Select and apply suitable statistical measures and analyze techniques for data of various structure and content and present summary statistics.

Catalog Description

This course aims to equip the learner with a range of most relevant topics that pertain to contemporary analysis practices, and are foundational to the emerging field of big data. Learners are guided through the theoretical and practical differences between traditional datasets and Big Data datasets. An overview of the initial collection of data will be explored for multiple data sources. A formal grounding in analytical statistics is a major part of the module curriculum. Learners are expected to apply principles of statistical analytics to solve problems and able to enhance their decision making skills. Learners are able to develop knowledge and understand statistical analytics techniques and principles while applying these techniques and principles in typical real world scenarios.

Course Content

Unit I: 12 lecture hours

Overview of Big Data: What is Big Data? Buzz Words: Data Science, Data Analytics, Big Data ; Analysis versus Analytics, Use of Big Data analytics in the field of Business. Difference between Business Intelligence and Business analytics, Business Forecasting and Predictive analytics. Data Types: Structured and Unstructured, What triggered Big Data technologies?
Survey design and scales for qualitative and quantitative data, Future of data

Unit II: 12 lecture hours

Overview of data mining: Association and Apriori, Market-basket Analysis, K-nearest neighbor problem. Clustering of Data
Exploratory Data Analysis: Detection of outliers, checking assumptions, preliminary selection of appropriate models, determining relationships among explanatory variables, assessing the direction and size of relationships between explanatory and outcome variables

Unit III: 12 lecture hours

Role of Statistics in Analysis: Overview of statistical attributes (e.g. variance, standard deviation), probability distributions, illustrating probability distributions, Sampling, Data dispersion and spread, Correlation, Data exploration, p-value, confidence interval, hypothesis testing, t-test, goodness of fit, One-way Anova and two-way Anova. Analysis of Covariance.
Basics Architecture of Big data handling: Master-Slave/Master-Worker Architecture, Hadoop overview and history, Hadoop Ecosystem: Overview of HDFS and Mapreduce working

Unit IV: 12 lecture hours

Basics and Usage of Machine Learning: Overview of Machine Learning as a analysis tool, Supervised and Unsupervised Learning, Training and Testing of data, Model selection, Implementation of regression using any analysis tool, Std error of estimates, Multicollinearity logistic regression, Support vector machines, Naïve Bayes, Bayesian Probability, Decision tree and random forest, Evaluating model performance.

Unit V: 12 lecture hours

Natural Language Processing Overview: Steps of NLP, Sentiment Analysis, Lemmetization. Speech to word algorithm. Latent semantic indexing. Text classification, text summarization, Reporting, Graphing and Plotting Frequency Curves, Histograms, 2d and 3d Scatter Diagrams, graphical representation of regression and correlation information, contour plots, 3d plots, tools e.g. R, iPhython, Tableau,

Text Books

1. Michael Berthold, David J. Hand, ―Intelligent Data Analysis, Springer, Second Edition, 2007
2. Bill Franks, ―Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics‖, Wiley and SAS Business Series, 2012.
3. Partha Sarathi Bishnu Vandana Bhattacharjee, Data Analysis, PHI Learning

Reference Books

1. Gareth James Daniela Witten Trevor Hastie Robert Tibshirani, -An Introduction to Statistical learning,
2. DT Editorial Services, Big Data, Black Book: Covers Hadoop 2, MapReduce, Hive, YARN, Pig, R and Data Visualization, Dreamtech Press; 1st edition (2016)

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	MTE I	MTE II	Presentation/Assignment/ etc	ETE
Weightage (%)	10	10	20	60

CEC52110	ECONOMICS OF NATURAL RESOURCES	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	12th level English. Understanding of graduate level economics is desirable				
Co-requisites	-				

Course Objectives

- Introduce the policy issues around natural resources
- Introduce ecosystem approach to economics
- Explain the check and balances on resource depletion
- Illustrate pricing and usage of one resource

Catalog Description

This course is designed to introduce post-graduate economics students to the policy issues around natural resources. Natural resources being scarce lead to core economic questions regarding the optimal rate of extraction. On the other hand, how discovery of new resource bases change the pricing and usage of one resource comes under the domain of resource economics. Finally the course also introduces ecosystem approach to economics which essentially deals with the problem of irreversibility of the eco-system challenging the linear approaches of economic instruments.

Course Content

Unit 1: Conceptual Framework **15L**

Economics, Ethics and the Environment; Ecological Economics and the Material Balance Approach; Environmental Economics and the Economics of Environment; Introduction to Resource Economics: Elementary Capital Theory- The maximum Principle of optimal control Theory

Unit 2: Economics of Exhaustible Resources **15L**

A simple 2-period framework and the concept of Backstop; Extension to Dynamic Model of Mining with modified Hotellings Rule; Depletion & Discovery under alternative market structures; Ecosystem Management and Sustainable Development, Measuring Sustainable Development

Unit 3: Economics of Renewable Resource 17L

Forestry: Single versus Multiple use Forest- Optimal Rotation and Faustmans Rule; Fishery: The concept of Maximum Sustainable Yield (MSY), Optimization under alternative fishery management regimes-open access solutions, Fishery and fish biodiversity, Mangrove-fishery linkages, Basic ideas of the theory of aquaculture shrimp farming;

Unit 4: Common Property Resources 13L

Poverty and Environmental Degradation; Community Management of Common Property Resources; Coordination Failure- Increasing Returns, Free-riding Problem (Assurance Game and Prisoners Dilemma); Community Institutions: Case Studies;

Reference Books

1. Perman, Y, MacGilvray, J. and M. Common (2003) Natural Resource and Environmental Economics, 4/e, Prentice Hall.
2. Tietenberg, T and L. Lewis (2012) Environmental and Natural Resource Economics, Pearson,

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52112	ENVIRONMENTAL REGULATION AND VALUATION	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	12^{th} level English. Understanding of graduate level economics is desirable				
Co-requisites	-				

Course Objectives

- Address environmental problems from the perspective of economics
- Address Global climate change issues
- Address complex environmental issues
- Introduce environmental laws and grasp the concept of environmental legislation

Catalog Description

This course is designed to address environmental problems from the perspective of economics. Designing economic instruments for regulation of environmental problems as well valuation of environmental services are major two focus of this course. In addition to that, global climate change issues along with their macroeconomic policy impact will be addressed in this course.

Course Content

Unit 1: Environmental Regulation 16L

Environmental Pollution as a Public Bad; Externality (Pigou), Property Rights (Coase), Optimal Pollution; Pollution Control: Alternative Market Based Instruments – Pure policies (Emission Fees, Standard setting, and Tradable Pollution Permits), Hybrid instruments (two-part tariff), Double Dividend Hypothesis, and Illicit Dumping; Case Studies

Unit 2: Introduction: Concept of Value 8L

Measuring values, benefits and costs – overview; total value – use and non-use values of goods; Total Economic Valuation; Resource evaluation and public policy; measuring demand for environmental goods – consumer surplus, compensating and equivalent surplus

Unit 3: Environmental Valuation: Production Function Approach 8L

Household Production Function Approach to Economic Valuation; Environmental valuation from market information including prices – dose response function, productivity change method, substitution cost method, illness costs, human capital; applications

Unit 4: Environmental Valuation: Revealed Preference Approach and Stated Preference Approach 20L

Revealed Preference Approach to Economic Valuation – basic theory; Hedonic pricing method – property market and labor market; travel cost method – individual model and zonal model; Statistical Value of Life

Hypothetical Market and Contingent Valuation Method; Contingent valuation method – bias, experimental markets; choice modeling – choice experiment, contingent comparison, contingent scoring, pair comparison; applications; Experimental Market

Unit 5: Climate Change Policy – Mitigation& Adaptation 8L

Efficiency, public goods, externalities; environmental policy instruments – emissions trading, carbon tax, emission trading versus tax; stock pollutants and discounting; decisions under risk and uncertainty; Climate change impact assessment – applications for agriculture, sea level rise and health; vulnerability assessment; economics of adaptation; measurement of adaptation cost; issues in financing adaptation; case studies

Reference Books

1. Bhattacharya, R.N. (2001), Environmental Economics – An Indian Perspective, Oxford University Press, Delhi.
2. Kolstad, C.D. (2012). Intermediate Environmental Economics, Oxford University Press, New York
3. Kadekodi , G. (2004): Environmental Economics in Practice: Case Studies from India, OUP.
4. Pearce, D.W. and Turner. R.K.(1991) : Economics of Natural Resource and Environment, Harvester-Wheatsheaf.
5. Baumol& Oates (1988): Theory of Environmental Policy (2/e), CUP
6. Murty, M.N. (2009), Environment, Sustainable Development, and Well-being: Valuation, Taxes and Incentives, Oxford University Press, Delhi.
7. Hanley, N., J.F. Shogren, and B. White, Environmental Economics: In Theory and Practice, Oxford University Press, 2006

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	20	10	30	40

CEC52114	PRINCIPLES OF INVESTMENT BANKING	L	T	P	C
Version 1.0		3	1	0	4
Pre-requisites/Exposure	Knowledge of banking activities				
Co-requisites	-				

Course Objectives

1. This course plans to discuss different concepts, theories and problems related to investment banks, their products, their functions as intermediaries and the concerned regulatory institutions.
2. This course plans to groom the learner's mind set to think upon the existing products, systems and frames in order to detect some issues, or problems, find solutions, conduct and suggest policy measures

Catalogue Description

Investment banks work as catalysts to the financial markets. They smooth the flow of capital from the point of origin to the point of need. They help the corporate bodies to access the capital market in matter of raising and deploying funds. They work as bridges between the issuers of security and the investors. This course discusses how the investment banks contribute to architecturing of the financial system through various specialized functions.

Course Content

Unit 1 **20 lecture hours**

Introduction

Concept of Investment Banking and Merchant Banking;
Concept of Commercial Banking;
Concept of Conflict of Interests;
Commercial Banking within and without Investment Banking;
Concept of Universal Banking;
Why not Universal Banking - Conflict of Interests
Types of Investment Banks- Financial Holding Companies, Full-service Investment Banks, Boutique Investment Banks; Important Specialized Services; Equity Offering and Bond Offering; Merger and Acquisitions

Unit 2 **12 lecture hours**

Equity Offerings

Risk-return Profile of Equity;
The Offering Structure;
American Depository Receipts (ADRs) and Global Depository Receipts (GDR); \
Price-Setting Mechanisms;
The Key Steps of the IPO Process;
Project Finance with Equity

Unit 3 **12 lecture hours**

Debt Offerings

Risk Return Profile of Debt
Bond Offerings;
Credit Ratings;
Securitization;
Syndicated Loans;
Project Finance with Debt

Unit 4 **12 lecture hours**

Merger and Acquisitions

The Concept of Mergers and Acquisitions;
Why Companies Merge and Acquire;
Integration and Conglomeration;
The Merger and Acquisition Lifecycle;
Measuring the Success of Mergers and Acquisitions;
A Brief History of Mergers and Acquisitions

Text Books

1. *Handbook of Finance*, Volume I, F Fabbozie (Ed.), Wiley & Sons
2. *Investments*, Z Bodie, A Kane and A Marcus, McGraw-Hill

Reference Books

1. Corporate Finance Institute, Investment Banking Manual, https://cdn.corporatefinanceinstitute.com/assets/Investment-Banking-Manual-CFI_2019.pdf
2. Mathews, K. and Thompson, J., The Economics of Banking, John Wiley and Sons

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	MTE I	MTE II	Presentation/Assignment/ etc	ETE
Weightage (%)	10	20	30	40

CEC52116	SECURITY ANALYSIS & PORTFOLIO MANAGEMENT	L	T	P	C
Version 1.0	**Contact Hours - 60**	3	1	0	4
Pre-requisites/Exposure	Any Undergraduate degree (in 10+2+3 structure) with Economics in UG level				
Co-requisites	--				

Course Objectives

1. To groom the learner's mind set to think upon the existing portfolio management techniques and frames in order to detect some issues or problems, find solutions, conduct and suggest policy measures

2. The learner will be able to join academic as teacher or research institutes and think tanks as researcher.

CO6. Apply the concept of portfolio management for the better investment and could invest in less risk and more return securities.

Course Description

Security Analysis, Portfolio Management, and Financial Derivatives integrates the many topics of modern investment analysis. It provides a balanced presentation of theories, institutions, markets, academic research, and practical applications, and presents both basic concepts and advanced principles.

Course Content

Unit 1: Understanding Investments (8 Hours)

- Investments: Meaning, types and characteristics, Objectives of investments, Types of investors, Type of Investments.
- Concept of risk and return, Types of risk,
- Measurement of Risk, Risk and Expected Return, Risk-Return Relationship,

- Portfolio and Security Returns, Return and Risk of Portfolio, Portfolio Diversification and Risk.

Unit 2: Valuation of Investments (10 Hours)

- Fixed Income Instruments
- Bond valuation Concept, Valuation model, Bond return, Price-yield relationship,
- Bond market, structure of interest rate (yield curve), Duration, Immunization.
- Equity Share valuation, Earnings valuation, Cash flow valuation, Asset valuation, Dividend-Discount model. Cost of Capital Approach.

Unit 3: Security Analysis (10 Hours)

- Market Efficiency Theory
- Economic Analysis –Economic factors,
- Econometric Forecasting Techniques Industry Analysis, Classification of Industries, Industry Life Cycle
- Structural Analysis, Importance of Industry Analysis, Key Indicators in Analysis,
- Forecasting Methods. Company Analysis − Analysis of Financial Statements. Technical Analysis – Concept, Dow Theory- Bar Charts, Point and Figure Charts.

Unit 4: Introduction to Portfolio Analysis (8 Hours)

- Portfolio Analysis and Selection,
- Markowitz Diversification and Classification of Risks,
- Measuring risk and return for single security and portfolio.

Unit 5: Portfolio Analysis and Models (12 Hours)

- Capital Asset Pricing Model, Benefits and Limitations of CAPM,
- Security Market Line (SML), Capital Market Line (CML), Beta Factor of a Market Portfolio,
- Arbitrage Pricing Model, Arbitrage Pricing Theory (APT),
- Modern Portfolio Theory.

Unit 6: Portfolio performance models and portfolio evaluation. (12 Hours)

- Markowitz Risk-return Optimisation,
- Single Index Model,
- Two Factor Model,
- Multi Factor Model. Methods of Calculating Portfolio Returns,
- Portfolio Performance and Risk Adjusted Methods-Sharpe's Ratio,
- Treynor's Measure,
- Jensen's Differential Returns, Portfolios for Performance Evaluation

Text Books

T1: *Investments*, Z Bodie, A Kane and A Marcus, McGraw-Hill
T2. *Handbook of Finance*, Volume I, F Fabbozie (Ed.), Wiley & Sons

Modes of Examination: Assignment/Quiz/Project/Presentation/Written Exam

Examination Scheme:

Components	Internal	Attendance	Mid Term	End Term
Weightage (%)	30	10	20	40

CEC52718	DISSERTATION	L	T	P	C
		0	6	0	6
Pre-requisites/Exposure	Knowledge of the chosen subject				
Co-requisites	-				

Course Objectives

1.To generate wide idea about the ethics of research.
2.To apply the knowledge of literature in real life.
4.To create advancement in existing knowledge.
5.To understand the importance of publication

Catalog Description

The students are primarily asked to identify a relevant research topic in the area of economics. After getting approval of the research proposal from the Departmental Research Committee, they will work on it under the supervision of concerned faculty member. Following is the dissertation guideline:

I. Title of the Dissertation

II. Introduction

III. Research Objectives

IV. Research Questions

V. Review of Literature

VI. Methodology and Methods

VII. Results and Interpretation

VIII. Conclusion

IX. Bibliography/References

The Dissertation shall contain no plagiarised material. It should follow Proper Reference Style. Both soft copy and hard copy of the Dissertation is to be submitted.

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Mid Term	Attendance	Class Assessment	End Term
Weightage (%)	00	00	00	100

Note: This document is subject to backcheck and verification by competent authority before submission to regulatory or external bodies.