

BA (Economics) Honours- 4 years with Research (1st Semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
1	ECN 102	Introductory Microeconomics	Core Course	6	0	0	6
2	ECN 103	Mathematical Methods for Economics – I	Core Course	6	0	0	6
3	ECN 104	Money and Banking	Allied Course	6	0	0	6
4	STA 103	Data Analysis	Employability & Skill Enhancement Course	2	0	0	2
5	ENG 101	Communication Skills—I	Value Added Course	1	0	0	1
6	PSY 101	Behavioural Science: Understanding Self for Effectiveness	Value Added Course	1	0	0	1
7	FOL 101/FOL102	Introduction to French Culture & Language /Introduction to German Culture & Language	Value Added Course	1	0	0	1
8	INL 101/INL102	Punjabi Language & Literature/ History and Culture of Punjab	Ability Enhancement Course	1	0	0	1

9	ENV101	Environmental Studies	Ability Enhancement Course	2	0	0	2
		Total Credits		26			

Introductory Microeconomics

L	T	P	Total Credits
6	0	0	6

Course Contents/syllabus:

	Lecture Hours
Unit I: Introduction to Microeconomics	27
<ul style="list-style-type: none"> • What is microeconomics? Scope and method of economics; the economic problem: scarcity and choice; the concept of opportunity cost; the question of what to produce, how to produce and how to distribute output; science of economics; institutions for allocating resources; the basic competitive model; prices, property rights and profits; incentives and information; rationing; positive versus normative analysis • The scientific method; the role of assumptions; models and mathematics; why economists sometimes disagree • Interdependence and gains from trade; specialization and trade; absolute advantage; comparative advantage and trade. 	
Unit II: Supply and demand: How markets work, markets and welfare	27

<ul style="list-style-type: none"> • Concept of demand and Supply: types, determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets • Application to international trade; comparison of equilibrium with and without trade, the winners and losers from trade; effects of tariffs and quotas; benefits of international trade; some arguments for restricting trade 	
Unit III: The Households	27
<ul style="list-style-type: none"> • Utility Analysis -cardinal and ordinal approaches, Cardinal Approach- Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility, Indifference curves- Concept, Properties, Different shapes • The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects: Hicks and Slutsky Approach- Compensating Variation and Equivalent Variation. 	
Unit IV: The Firm and Perfect/ Imperfect market structure; Input Markets	27
<ul style="list-style-type: none"> • Behavior of profit maximizing firms and the production process; short-run costs and output decisions; costs and output in the long-run • Monopoly and anti-trust policy; government policies towards competition; imperfect competition • Labour and land markets: Basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; labour markets and public policy. 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

- Develop an understanding of microeconomics concepts and explanations.
- Assess diverse situations of demand and supply as they impact a business.
- Analyze the characteristics of perfect and imperfect markets with their relevance.
- Evaluate the impact of microeconomics on individual decision making as consumers & producers.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Gregory Mankiw	Economics: Principles & Applications	Thomson Press (India) Ltd	2008	978-8131505779	
N. Gregory Mankiw	Principles of Microeconomics	Cengage Learning India Pvt. Ltd	2015	978-9386668295	520
T R Jain, V K Ohri, O P Khanna	Introductory Microeconomics and Macroeconomics	VK Global Publications Private Limited	2014	978-9380735085	536
H.L. Ahuja	Principles Of Microeconomics	S Chand Publishing	2016	978-9352533305	872
Mass Colell	Microeconomics Theory	Oxford	2016	978-0198089537	998

Mathematical Methods for Economics – I

L	T	P	Total Credits
6	0	0	6

Course content and syllabus

	Teaching Hours
Unit I: Introduction to basic relational mathematics	27
<ul style="list-style-type: none">• Logic and proof techniques;• Sets and set operations;• Relations;• Functions and their properties;• Number systems	
Unit II: Functions of one real variable	27
<ul style="list-style-type: none">• Graphs;• Elementary types of functions: quadratic, polynomial, power, exponential, logarithmic;• Sequences and series: convergence, algebraic properties and applications;• Continuous functions: characterizations, properties with respect to various operations and applications;• Differentiable functions: characterizations, properties with respect to various operations and applications;• Second and higher order derivatives: properties and applications	
Unit III: Single-variable optimization	27

<ul style="list-style-type: none"> • Geometric properties of functions: convex functions, their characterizations and applications; • Local and global optima: geometric and calculus-based characterizations, and applications 	
Unit IV: Linear algebra	27
<ul style="list-style-type: none"> • Vector spaces: algebraic and geometric properties, scalar products, norms, orthogonality; • Linear transformations: properties, matrix representations and elementary operations; • Systems of linear equations: properties of their solution sets; • Determinants: characterization, properties and applications 	

Course Learning Outcomes:

The course hones and upgrades the mathematical skills acquired in school. The course:

- Provides the mathematical foundations necessary for further study of a variety of disciplines including economics, statistics, computer science, finance and data analytics.
- Explains applications wherever optimization techniques are used in business decision-making
- Increases understanding of the tools necessary for an analyst profile.
- Makes the student more logical in making or refuting arguments.

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
K. Sydsaeter, P. Hammond	Mathematics for economic analysis	Pearson Educational	2002	978-8177581041	800
Simon, C. and L. Blume	Mathematics for Economists	Norton London	2018	978-8130916002	956

Sheldon M. Ross	Introduction to Probability Models	Academic Press	2009	978- 0123756862	800
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Money and Banking

L	T	P	TotalCredits
6	0	0	6

Course content and syllabus

	Teaching Hours
Unit I: Introduction to Money	27
<ul style="list-style-type: none"> • Money :Concept, approaches to define money and functions of money • Velocity of money • Measurement: theories of money supply determination and the approaches to determine money multiplier, RBI Measures of Money Supply 	
Unit II: Financial institutions, markets, instruments and financial innovations	27
<ul style="list-style-type: none"> • Role of financial markets and institutions; Financial System in India; Financial Inclusion; problem of asymmetric information - adverse selection and moral hazard; financial crises. 	

<ul style="list-style-type: none"> • Money and capital markets: Organisation & structure • Market reforms in India; • Types of financial services and other innovations. 	
Unit III: Interest rates	27
<ul style="list-style-type: none"> • Interest rates Determination: Classical theory of interest rate, Neo-classical loanable fund theory, Keynes Liquidity preference theory of interest and Modern theory of interest rate (IS-LM approach) • Sources of interest rate differentials • Theories of term structure of interest rates: Liquidity Premium theory, Segmented market theory and Portfolio behaviour theory; • Interest rates in India 	
Unit IV: Banking System, Central Banking and Monetary Policy	27
<ul style="list-style-type: none"> • Indian banking system: Changing role and structure; banking sector reforms • Central banking and monetary policy Functions, balance sheet; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India • Commercial Banks and Cooperative Banking System in India • NABARD & Regional Rural Bank in India 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

- Develop an understanding of functions and theories of Money

- Assess role of financial institutions, markets , instruments and financial innovations in Indian financial system.
- Analyze the interest rates determination, related theories and current prevailing interest rates in India.
- Evaluate the role of banking system and central banks and monetary policy.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Bhole, L, Mahukud, J.	Financial Institutions And Markets	Tata McGraw-Hill.	2017	978-9352605415	
Fabozzi, F., Modigliani, F., Jones, F., Ferri, M.	Foundations Of Financial Markets And Institutions	Pearson Education	2014	978-9332536784	704
Khan, M	Indian Financial System	Tata McGraw-Hill	2019	978-9353167301	1008
Mishkin, F., Eakins, S.	Financial Markets And Institutions	Pearson Education	2018	978-1292215006	696
TR Jain, V K Ohri	Money and Banking	VK Global Publications Pvt Ltd	2020	978-9350586938	
N K Sinha	Money, Banking & Finance	BSC Publishing	2018	9788190458948	538
Michael Brandl	Money, Banking, Financial Markets and Institutions	Cengage Learning	2019	978-9353502232	

		India Pvt. Ltd.			
Dr. D.D.Chaturvedi / Dr. Anand Mital	Money and Banking	Kitab Mahal Publishers	2018	978- 8122506358	292
R. Glenn Hubbard, Anthony P O'Brien	Money, Banking and Financial System	Pearson Education	2019	978- 9353069858	656

Data Analysis

L	T	P	Total Credits
2	0	0	2

Course Contents/syllabus:

	Lecture Hours
Unit-1 Introduction to the course:	9
How can the representation and analysis of data help us study real-world problems. Publicly available data sets	
Unit-2- Using Data	9
Available statistical software, steps in data storage, organization and cleaning.	

Unit-3- Visualization and Representation	9
Alternative forms of presenting summarizing and presenting data	
Unit-4-Techniques and Tests	9
Simple estimation techniques and tests for statistical inference	

Course Learning Outcomes: At the end of this course, the students will be able

- To develop the understanding basic concepts of data representation and analysis.
- To use data simulations and publicly available data sources to help students learn about data types, their organization and visual representation.
- To analyze the techniques and tests used for statistical inferences of data.
- To enhance the analytical skills which are applicable in Business Organizations.

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages
David Levine, David Stephan, Kathryn Szabat	Statistics for Managers Using Microsoft Excel	Pearson	2017	9780134173054	736
Prabhanjan N. Tattar, Suresh Ramaiah, B. G. Manjunath	A Course in Statistics with R	Wiley	2018	9788126578252	860

Communication Skills—I

Course Contents/syllabus:

L	T	P/S	SW/FW	TOTAL CREDIT UNITS
1	0	0	0	1
				Lecture Hours

Unit I: Basic Concepts in Communication	4
Definition of communication, Nature and process of communication, role and purpose of communication, types and channels of communication, communication networks/flow of communication: vertical, diagonal, horizontal, barriers to communication: physical, language, and semantic, socio-psychological, organizational, gateway to effective communication, towards communicative competence, choosing the appropriate channel and medium of communication, social communication: small talk and building rapport, barriers in communication.	
Unit II: Communication Types	5
Verbal communication: Oral Communication: Forms, Advantages & Disadvantages, Written Communication: Forms, Advantages & Disadvantages, Introduction of Communication Skills (Listening, Speaking, Reading, Writing), Nonverbal communication: functions and effective use, KOPPACT(Kinesics, Oculesics, Proxemics, Para-language, Artifacts, Chronemics, Tactilics). The implication of appropriate communication; effective ways of using social media, importance of digital literacy.	
Unit III: Reading and Writing Skills	4
Significance of reading; Reading Comprehension, gathering ideas from a given text, identify the main purpose and context of the text, evaluating the ideas, interpretation of the text, Paragraph development; essay writing.	
Unit IV: Speaking and Presentation Skills	5
Speaking skills: fluency, vocabulary, grammar, and pronunciation; effective speaking: selection of words, your voice, and non-verbal communication, functions of speaking: interaction, transaction, and performance; structuring the message; effective speaking strategies. Planning, preparation, practice, and performance; audience analysis, audio-visual aids, analyzing the non-verbal communication, methods of delivery: impromptu, extemporaneous, memorization, manuscript, and outlining.	

Course Learning Outcomes:

- Students will be able to understand the basic processes of communication, both verbal as well as non-verbal—nature, scope, and power of communication processes.
- Students will be able to demonstrate cultural sensitivity in communication and appreciation of cultural variations of diverse socio-cultural contexts.
- Students will be able to develop an awareness of the role of mass media in shaping public psyche, beliefs, and perceptions about social realities and build an informed and critical perspective.
- Students will be able to analyze situations and audiences to make right choices about the most effective and efficient ways to communicate and deliver messages.

- Students will be able to assess various barriers in communication and develop communicative competence thereby for effective communication.

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
P. D. Chaturvedi and Mukesh Chaturvedi	<i>Business Communication: Concepts, Cases and Applications</i>	Pearson Education	2006	9788131701720	516
Meenakshi Raman and Prakash Singh	<i>Business Communication</i>	Oxford University Press	2012	9780198077053	650
Jeff Butterfield	<i>Soft Skills for Everyone</i>	Cengage Learning	2017	9789353501051	628

Behavioural Science: Understanding Self for Effectiveness

L	T	P	Total Credits
1	0	0	1

Course Contents/syllabus:

	Teaching time
Unit I: Self: Core Competency	5
Understanding of Self, Components of Self – Self identity , Self concept, Self confidence , Self image , BIG5 Factors	
Unit II: Techniques of Self Awareness	4

Exploration through Johari Window, Mapping the key characteristics of self, Framing a charter for self Stages – self awareness, self acceptance and self-realization	
Unit III: Self Esteem & Effectiveness	5
Meaning, Importance, Components of self esteem, High and low self esteem, Measuring your self esteem	
Unit IV: Building Positive Attitude and Emotional Competence	4
Meaning and nature of attitude, Components and Types of attitude ,Importance and relevance of attitude Emotional Intelligence – Meaning, components, Importance and Relevance Positive and negative emotions, Healthy and Unhealthy expression of emotions	

Course Learning Outcomes: At the end of this course, the students will be able to:

- The student will apply self-introspection as a tool for self-awareness.
- The student will understand self-concept for self-recognition, self-improvement and perception of others.
- The student will be able to analyze their physical self, social self, the competent self and psychological self.

The student will be able to analyze what motivates his/her actions and the actions of others

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN
Singh A.	Achieving Behavioural Excellence for Success	Wiley Publication	2012	978812658027
Towers, Marc	Self Esteem	American Media	1995	9781884926297
Pedler Mike, Burgoyne John, Boydell Tom	A Manager's Guide to Self-Development	McGraw-Hill	2006	978-0077114701

Covey, R. Stephen	Seven habits of Highly Effective People	Simon & Schuster Ltd	2013	978-1451639612
Khera Shiv	You Can Win	Macmillan	2005	978-0333937402
Gegax Tom	Winning in the Game of Life	Harmony Books	1999	978-0609603925
Singh, Dalip	Emotional Intelligence at Work	Publications	2006	9780761935322
Goleman, Daniel	Emotional Intelligence	Bantam Books	2007	9780553095036
Goleman, Daniel	Living with E.I	Bantam Books	1998	9780553104622

Introduction to German Culture & Language

L	T	P	Total Credits
1	0	0	1

Course Contents/syllabus:

	Teaching hours
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Unit-I Introduction to German Language (Einführung)	5
Introduction to German as a global language, Self-introduction and Greetings, DieAlphabeten, Phonetics: the sound of consonants and vowels, Wie buchstabieren Sie Ihren Name?	
Unit-II- Numbers and everyday conversation (die Zahl und Gespräche)	4
Counting in German from 1-100, Simple Calculation and verb 'kosten' - Wie vielkostet das? Plural Forms, Vocabulary: Wochentage, Monate, Jahreszeiten, Ordinal numbers and the question - Wann haben Sie Geburtstag?	
Unit-III- Regular verbs and nominative case: articles and pronouns (Regelmässige Verben und Nominativ Kasus: Artikel und Pronomen)	5
Introduction to all personal pronouns and conjugation of Regular verbs Detailed exercise on regular verbs. Reading a text on regular verbs. Introduction to definite. Vocabulary: Schulsachen und Getränke, Nominative case/ Articles (der, die, das) Nominative Pronouns: - Applicability of pronouns for both persons and things. Usage of nominative Personal Pronouns Introduction of nominative possessive pronouns usage of nominative possessive pronouns	
Unit-IV- The Family, Work-life and Professions (Familienmitglieder und Berufe) & Interrogative sentences (W-Fragen)	4
The Family, Work-life and Professions (Familienmitglieder und Berufe) Vocabulary: Professions and conjugation of the verb 'sein' Introduction to simplepossessive pronouns with the help of the verb 'haben' Usage of possessive pronouns. Interrogative sentences (W-Fragen) W-Fragen: who, what, where, when, which, how, how many, how much, etc. Exercises on the question pronouns	

Course Learning Outcomes: At the end of this course, the students will be able to express themselves in writing and orally in basic German. This course content focuses on the speech of the students in a lucid and a concurrent manner using appropriate vocabulary and pronunciation techniques. Extra stress will be given on their understanding of grammatical structures and the foreign accent of the language. At the end of the course, the student shall be able to:

- Understand information; Express in his own words; Paraphrase; Interpret and translate.
- Apply information in a new way in a practical context
- Analyse and break-down information to create new ideas
- Evaluate and express opinion in a given context

Text / Reference Books:

Author	Title	Publisher	Year	ISBN
Rolf Bruseke	Starten Wir A 1	Langers International Pvt Ltd (Max Hueber Verlag)	2017	978-3190160006
Giorgio Motta	Wir Plus Grundkurs Deutschfur Junge Lerner Book	Ernst Kleit Verlog	2011	978-8183072120
Heimy Taylor, Werner Haas	Station en Deutsch Self Study Course German Guide	Wiley	2007	978-0470165515

Introduction to French Culture & Language

L	T	P	Total Credits
1	0	0	1

Course Contents/syllabus:

	Teaching hours
Unit-I Introduction to French language	4

<ul style="list-style-type: none"> • Brief introduction of French and Francophone countries • Presenting oneself • Getting information about someone else • Greeting and taking leave • Asking/giving personal information 	
Unit-II- A rendez-vous ; Visiting a place	5
<ul style="list-style-type: none"> • Pronouncing and writing numbers in French • Spell and count numbers • Telling the time • Temporal expressions • Communicating in class • Fixing an hour, place for a meeting. • Describing a person. • Identifying a person, object and place • Describing relation in a family • A specific person, object and place 	
Unit-III- An interview	5
<ul style="list-style-type: none"> • Description of objects, people and places • Nationalities • Speaking about one's professions • Expressing Actions using regular –er ending verbs; avoir, être; reflexive verbs –usage, conjugation • Interview of celebrity 	
Unit-IV- At the discotheque	4
<ul style="list-style-type: none"> • Portrait by a journalist • Giving a positive or negative reply • Asking questions • Discussion with a person • Activities in a day 	

Course Learning Outcomes: At the end of this course, the students will be able to express themselves in writing and orally in basic French. This course content focuses on the speech of the students in a lucid and a concurrent manner using appropriate vocabulary

and pronunciation techniques. Extra stress will be given on their understanding of grammatical structures and the foreign accent of the language. At the end of the course, the student shall be able to :

- Understand information; Express in his own words; Paraphrase; Interpret and translate.
- Apply information in a new way in a practical context
- Analyse and break-down information to create new ideas
- Evaluate and express opinion in a given context

Text / Reference Books:

Author	Title	Publisher	Year	ISBN No
Christine Andant, Chaterine Metton, Annabelle Nachon, Fabienne Nugue	A Propos - A1 Livre De L'Eleve, Cahier D' Exercices	Langers International Private Limited	2010	978- 938080 9069
Manjiri Khandekar andRoopa Luktuke	Jumelage - 1 Methode De Fraincais - French	Langers Internationa l Private Limited	2020	978- 938080 9854
Michael Magne, Marie-Laure Lions- Olivieri	Version Originale 1: Cahier d'exercices	Maison Des Langues	2010	978848 443561 7

Punjabi Language and Literature-1

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

Course content and syllabus

	Weightage (%)	Teaching Hours

Unit I:	25%	4 hours
ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਕਵਿਤਾ ਦਾ ਅਧਿਐਨ (ਕਾਵਿ-ਸੁਮੇਲ ਪਾਠ-ਪੁਸਤਕ) ਕਵਿਤਾ ਦਾ ਸਾਰ/ਕੇਂਦਰੀ ਭਾਵ ਅਤੇ ਪ੍ਰਸੰਗ ਸਾਹਿਤ ਵਿਆਖਿਆ ਕਵੀ ਦੇ ਜੀਵਨ ਅਤੇ ਸਾਹਿਤਕ ਯੋਗਦਾਨ ਬਾਰੇ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ		
Unit II:	25%	4 hours
1.ਲੇਖ-ਰਚਨਾ ਲੇਖ-ਰਚਨਾ: ਮਹੱਤਵ, ਕਿਸਮਾਂ ਅਤੇ ਵੱਖ-ਵੱਖ ਵਿਸ਼ਿਆਂ ਅਨੁਸਾਰ ਵਿਹਾਰਕ ਅਭਿਆਸ 2.ਸੰਖੇਪ-ਰਚਨਾ ਸੰਖੇਪ-ਰਚਨਾ: ਮਹੱਤਵ ਅਤੇ ਤਕਨੀਕ		
Unit III:	25%	5 hours
ਵਿਆਕਰਨ ਸਿਧਾਂਤ ਅਤੇ ਵਿਹਾਰ: 1. ਵਿਆਕਰਨ: ਪਰਿਭਾਸ਼ਾ; ਮਹੱਤਤਾ; ਉਦੇਸ਼; ਵਿਆਕਰਨ ਦੇ ਅੰਗ 2. ਪੰਜਾਬੀ ਧੁਨੀਵਿਭਿੰਨਤਾ: ਸ੍ਰੀ ਅਤੇ ਵਿਅੰਜਨ ਧੁਨੀਆਂ ਦਾ ਵਰਗੀਕਰਨ, ਉਚਾਰਨ ਅੰਗ		
Unit IV:	25%	5 hours
ਵਿਆਕਰਨ ਸਿਧਾਂਤ ਅਤੇ ਵਿਹਾਰ: ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ: ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਪ੍ਰਕਾਰ ਨਾਂਵ, ਪੜਨਾਂਵ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ, ਸਬੰਧਕ, ਯੋਜਕ ਅਤੇ ਪ੍ਰਸ਼ਨ-ਸੂਚਕ ਸ਼ਬਦ		

Course Learning Outcomes:

1. Understand modern Punjabi Poetry.
2. Interpret the importance of essay and precise writing
3. Analyze the Punjabi language structure and grammar.
4. Examine the impact and importance of grammar and language structure.

5. Text / Reference Books:

6.

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
ਡਾ. ਕਰਮਜੀਤ ਸਿੰਘ (ਸੰਪਾ.),	ਕਾਵਿ ਸੁਮੇਲ	ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬ ਯੂਨੀਵਰਸਿਟੀ ਚੰਡੀਗੜ੍ਹ	2020	-	-
ਸੁਰਿੰਦਰ ਸਿੰਘ ਖਹਿਰਾ (ਸੰਪਾ.),	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਆਕਰਨ ਅਤੇ ਬਣਤਰ	ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ ਪਟਿਆਲਾ	2015	-	-
ਡਾ. ਹਰਕੀਰਤ ਸਿੰਘ,	ਕਾਲਜ ਪੰਜਾਬੀ ਵਿਆਕਰਨ ਅਤੇ ਲੇਖ ਰਚਨਾ	ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ ਬੁੱਕ ਬੋਰਡ, ਚੰਡੀਗੜ੍ਹ	1999	-	-
ਡਾ. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ	ਕਾਲਜ ਪੰਜਾਬੀ ਵਿਆਕਰਨ ਅਤੇ ਲੇਖ ਰਚਨਾ	ਮਦਾਨ ਪਬਲੀਕੇਸ਼ਨਜ਼, ਪਟਿਆਲਾ	2002	-	-
ਡਾ. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ	ਪੰਜਾਬੀ	ਚੇਤਨਾ ਪ੍ਰਕਾਸ਼ਨ, ਪੰਜਾਬੀ	2012	-	-

	ਵਿਆਕਰਨ ਸਿਧਾਂਤ ਅਤੇ ਵਿਹਾਰ	ਭਵਨ, ਲੁਧਿਆਣਾ			
ਡਾ. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਸ਼੍ਰੇਣੀ ਅਤੇ ਸਰੂਪ	, ਵਾਰਿਸ ਸ਼ਾਹ ਫਾਊਂਡੇਸ਼ਨ, ਅੰਮ੍ਰਿਤਸਰ	2012	-	-
ਦੁਨੀ ਚੰਦੂ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਣ	, ਪੰਜਾਬ ਯੂਨੀਵਰਸਿਟੀ ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਚੰਡੀਗੜ੍ਹ	1995	-	-
ਜੋਗਿੰਦਰ ਸਿੰਘ ਪੁਆਰ ਅਤੇ ਹੋਰ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਨ (ਭਾਗ 1,2,3),	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ ਜਲੰਧਰ	2003	-	-
ਸੁਖਵਿੰਦਰ ਸਿੰਘ ਸੰਘਾ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ ਜਲੰਧਰ	2010	--	-
ਅਗਨੀਹੋਤਰੀ, ਵੇਦ	ਪਰਿਚਾਇਕ ਭਾਸ਼ਾ ਵਿਗਿਆਨ	ਦੀਪਕ ਪਬਲਿਸ਼ਰਜ਼ ਜਲੰਧਰ	1981		

**History and Culture of Punjab
Course Contents/syllabus:**

L	T	P/S	SW/FW	Total Credit Units
1	0	0	0	1

	Lecture Hours
Unit I:	4
Ancient Punjab: Physical features; impact on History Historical Sources: Literary; archaeological Harappan Culture: Extent and town planning.	
Unit II:	5
Harappan Culture: Social, Economic and Religious life; causes of disappearance Rig Vedic Age: The rise of Indo Aryans; main features of the life in early Vedic Age. Later Vedic Age: Political, Social, Economic and Religious life of later Vedic Aryans.	
Unit III:	4
Caste System: Origin and evolution. The Epics: Historical importance of Ramayan and Mahabharat. Political Condition on eve Alexander's invasion	
Unit IV:	5
Impact of Alexander's invasion on social and cultural life. Position of women: Harappan, early Vedic and later Vedic Age	

Course Learning Outcomes:

- Understand the history of various cultures in Punjab.
- Interpret the importance of Harappan ,Ayan and Vedic influences on Punjab
- Compare the structure of caste system .
- Examine the impact of various invasions on socio-cultural life of Punjab.

Text / Reference Books:

Author	Title	Publisher	Ed/year	ISBN No	Pages
Joshi, L.M	History and Culture of the Punjab, Part-I,	Publication Bureau, Punjabi University, Patiala,	1989,3 rd	-	-
Prakash, Buddha	Glimpses of Ancient Punjab,	Punjabi University, Patiala,	1983	-	-

Environmental Studies 1

L	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Contents/syllabus:

	Lecture Hours
Unit-1- Multidisciplinary nature of environmental studies	4
<i>Multidisciplinary nature of environmental studies:</i> Definition, scope and importance; components of environment – atmosphere, hydrosphere, lithosphere and biosphere. Concept of sustainability and sustainable development.	
Unit-2-Ecosystems	5
<i>Ecosystem:</i> What is an ecosystem; Structure and function of an ecosystem; Energy flow in the ecosystem; Food chains, food webs and ecological succession. Case studies of the following ecosystems: Forest ecosystem Grassland ecosystem Desert ecosystem Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	
Unit-3- Natural Resources	4
<i>Natural resources:</i> Land resources and land use change, land degradation, soil erosion and desertification. Deforestation: causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal population. Water Resources-Use and over-exploitation of surface and groundwater, floods, drought, conflicts over water (international and inter-state). Heating of earth and circulation of air; air mass formation and precipitation. Energy resources- renewable and non-renewable energy sources, use of alternate energy sources, Growing energy needs, Case studies.	
Unit-4- Biodiversity and its conservation	5
<i>Biodiversity:</i> Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; biodiversity patterns and global biodiversity hot spots. India as a mega-biodiversity nation; endangered and endemic species of India. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; conservation of biodiversity: <i>in-situ</i> and <i>ex-situ</i> conservation of biodiversity. Ecosystem and biodiversity services: ecological, economic, social, ethical, aesthetic and information value.	

Course Learning Outcomes: At the end of this course, the students will be able to develop:

- Appreciate the multi-disciplinary nature of environmental science
- Understand natural resources and evaluate limitations surrounding renewable and non-renewable resources
- Understand the nuances of ecosystem and learn about behaviour of various ecosystem
- Learn about the types, services and threats to our biodiversity and importance of conserving it.

Text / Reference Books:

(Mention only those Text / Reference Books which are available in the library)

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
William P. Cunningham, Mary Ann Cunningham	Principles of Environmental Science	McGraw-Hill	2019	9781260219715	--
Dash and Dash	Fundamentals of ecology	Tata McGraw-Hill Education	2009	978-0070083660	--
William P. Cunningham, Mary Ann Cunningham, Barbara Woodworth Saigo	Environmental Science: A global concern,	McGraw-Hill	2021	9781260363821	--
Stanton K.J. and Spicer, J. I.	Biodiversity – An Introduction 2 nd edition	Blackwell Publishing	2004	978-1-405-11857-6	--

BA (Economics) Honours- 4 years with Research (2nd semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
1	ECN 105	Mathematical Methods for Economics – II	Core Course	6	0	0	6
2	ECN 106	Introductory Macroeconomics	Core Course	6	0	0	6
3	ECN 107	Economic History of India 1857-1947	Allied Course	6	0	0	6
4	ECN 108	Financial Economics	Employability & Skill Enhancement Course	2	0	0	2
5	ENG103	Communication Skills—II	Value Added Course	1	0	0	1
6	PSY106	Individual, Society and Nation	Value Added Course	1	0	0	1
7	FOL 103/ FOL 104	French Grammar/ German Grammar	Value Added Course	1	0	0	1

8	INL 104/ INL 105	Punjabi Language & Literature/ History and Culture of Punjab	Ability Enhancement Course	1	0	0	1
9	ENV 106	Environmental Studies	Ability Enhancement Course	2	0	0	2
		Total Credits		26			

Mathematical Methods for Economics – II

L	T	P	Total Credits
6	0	0	6

Course content and syllabus

	Lecture Hours
Unit 1 Functions of several real variables	28
<ul style="list-style-type: none"> • Geometric representations: graphs and level curves • Differentiable functions: characterisations, properties with respect to various operations and applications • Second order derivatives: properties and applications • The implicit function theorem, and application to comparative statics problems • Homogeneous and homothetic functions: characterisations and applications 	
Unit 2 Multivariate Analysis	28

<ul style="list-style-type: none"> • Multivariate optimization Convex sets • Geometric properties of functions: convex functions, their characterisations, properties and applications • Further geometric properties of functions: quasiconvex functions, their characterisations, properties and applications • Unconstrained optimisation: geometric characterisations, characterisations using calculus and applications • Constrained optimisation with equality constraints: geometric characterisations, Lagrange characterisation using calculus and applications. • Properties of value function: envelope theorem and applications 	
Unit 3 Linear programming	26
<ul style="list-style-type: none"> • Introduction, graphical solution, matrix formulation, duality, economic interpretation. 	
Unit 4 Integration, differential equations, and difference equations	26
<ul style="list-style-type: none"> • Definite integrals, indefinite integrals and economic applications. • First order difference equations, equilibrium and its stability • First order differential equations, phase diagrams and stability 	

Course Learning Outcomes:

1. The course provides the mathematical foundations necessary for further study of a variety of disciplines including postgraduate economics, statistics, computer science, finance and data analytics.

2. The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making for managers and entrepreneurs alike. These tools are necessary for anyone seeking employment as an analyst in the corporate world.

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
K. Sydsaeter, P. Hammond	Mathematics for economic analysis	Pearson Educational	2002	978-8177581041	800

Simon, C. and L. Blume	Mathematics for Economists	Norton London	2018	978-8130916002	956
Sheldon M. Ross	Introduction to Probability Models	Academic Press	2009	978-0123756862	800

Introductory Macroeconomics

L	T	P	Total Credits
6	0	0	6

Course content and syllabus

	Lecture Hours
Unit I: Introduction to Macroeconomics and national income accounting	26
<ul style="list-style-type: none"> • Nature and scope of macroeconomics –Meaning and definition of key variables • Circular Flow and networking in macroeconomic system • Basic issues studied in macroeconomics: Measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP • Price indices: Concept and Methodology of CPI and WPI • National income accounting for an open economy • Balance of payments: current and capital accounts 	
Unit II: Money	28

<ul style="list-style-type: none"> • Types of Money, Functions of money; Fisher's quantity theory of money; Cambridge equation for determination of money • Demand for Money: transactionary, speculative and precautionary motives, Keynes Demand for Money Theory, Liquidity Trap • Process of Credit Creation: Money Multiplier, Supply of Money • Central Bank and Tools of monetary policy • Money Market Equilibrium 	
Unit III: Inflation and Unemployment	28
<ul style="list-style-type: none"> • Concept of inflation, determinants and types of inflation, inflation and its social cost, hyperinflation • Controls of Inflation: Monetary Policy, Fiscal Policy and Physical Controls • Concept, types and Phillips Curve in short run and long run • Static, Adaptive and Rational Expectations, Expectations Augmented Phillips Curve • Relationship between inflation and unemployment. 	
Unit IV: The closed economy in the short run	26
<ul style="list-style-type: none"> • Schools of macroeconomic thought: Classical, Keynesian, New – classical and New Keynesian • Classical and Keynesian systems • Keynesian model of income determination; IS-LM model; fiscal and monetary policy 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

1. Develop an understanding of macroeconomics concepts and explanations.
2. Enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their inter- linkages.
1. Critically evaluate various macroeconomic policies in terms of a coherent logical structure and appraise economic issues and public policy by using economic models.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
A.Abel, B.Bernanke	Macroeconomics	Pearson Education	2016	9780134896441	651
O. Blanchard	Macroeconomics	Pearson Education	2018	978- 9332587601	624
Dornbusch, R., Fischer, S., Startz, R.	Macroeconomics	McGraw- Hill.	2018	978- 9339221188	680

Economic History of India

L	T	P	Total Credits
6	0	0	6

Content	Lecture hours
Unit 1: Colonial India: background and introduction	28
<ul style="list-style-type: none"> • Historical Background of India in the Pre-Colonial Phase • Advent of European Powers • Expansion of the British empire in India • Expansion of Company under Major Governor Generals 	

<ul style="list-style-type: none"> • Commercial and trade policies of the East India company • The Economic Policies of the British and The Revolt of 1857 	
Unit: 2 National Income, Agriculture and Occupational Structure	26
<ul style="list-style-type: none"> • National Income of India under Colonial Rule, Methods of estimating National Income during the British period and after Independence, Drain of Wealth • Population of India during the British Rule, Occupational Structure of Colonial India • Urbanization in The Colonial Period • Agrarian trend in India during the colonial period-An introduction • Agricultural Techniques and Methods used in British India • Agriculture production and productivity in the colonial rule • Land Revenue Settlement of India during the British Rule • Agrarian Credit in the Colonial Period • Commercialization of Agriculture. • Plantation in India, Famines in Colonial India 	
Unit 3 Railways and Industries	26
<ul style="list-style-type: none"> • Advent of Railways • Railways on market integration and trade in Colonial India • Industrialization in India • Characteristics of Indian Industries at the time of British rule • Rise of Large-Scale Industries in Colonial India • Small Scale Industries in British India. • The Debate on De-industrialization 	
Unit 4 Trade, Fiscal and Monetary Policies	28
<ul style="list-style-type: none"> • Entrepreneurship in Colonial regime • Rise economic nationalism • External and internal trade • Foreign Capital, Monetary policy • Fiscal policy • Role of State in the imperialistic structure • Indian economy at the eve on independence 	

Course Learning Outcomes:

The course develops critical analytical skills and exposes students to understanding the intricacies of India's economic, political and social developments both in the past and present times. It increases their employability by enhancing their ability to deal with a variety of textual and statistical sources, and to draw upon them to construct a coherent argument. These skills would be useful in a variety of careers in academics, research, journalism and the government

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
Balachandran, G	Colonial India and the world economy, C. 1850- 1940- A new economic history of colonial India	Routledge.	2016	97813877972	284
Parthasarathy, P.	Why Europe grew rich and Asia did not: Global economic divergence, 1600-1850.	Cambridge University Press	2011	0521168244	380

Financial Economics

L	T	P	Total Credits
2	0	0	2

Course Contents/syllabus:

	Lecture Hours
Unit-1 Basic Accounting:	9
<ul style="list-style-type: none"> • Basic understanding of Accounting and Financial Terminology • Understanding of Accounting and Financial Statements • Understanding of Accounting and Financial Management 	

<ul style="list-style-type: none"> • Financial Decisions Under Financial Management • Objectives of Financial Management • Sources of Finance and How accounting is different from finance 	
Unit-2- Introduction to Financial Economics	9
<ul style="list-style-type: none"> • Components of Formal Financial System, • Key elements of well-functioning financial system • Nature and Role of Financial Institutions and Financial Markets 	
Unit-3- Non-Banking Financial Institutions	9
<ul style="list-style-type: none"> • Non-Banking Financial Institutions- Role Growth and Structure of (NBFIs) in India. • Types and Control of Non-Banking Financial Companies(NBFCs). 	
Unit-4- Financial Markets	9
<ul style="list-style-type: none"> • Primary market - functions- types • Secondary Markets - functions- types • Equity and Debt Markets • Time Value of Money • Present and Future Values • Venture Capital and Start up Ecosystem 	

Course Learning Outcomes: At the end of this course, the students will

- Have a thorough understanding of the fundamental Financial tools and valuation techniques required in the capital investment appraisal process.
- Understand the logic and reasoning behind taking strategic financial decisions
- To enhance the analytical skills which are applicable in Business Organizations.

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages
R.E. Bailey	The Economics and	Cambridge	2005	978-	528

	Financial Markets	University Press		0521612807	
S.F. Ley Roy and J. Werner	Principles of Financial Economics	Cambridge University Press	2005	9781316060872	289

Communication Skills—II

L	T	P	Total Credits
1	0	0	1

	Lecture Hours
Unit I: Basic Concepts in Communication	5
Towards communicative competence; choosing the appropriate channel and medium of communication; ways to develop communication skills in the areas of Listening, Speaking, Reading, and Writing.	
Unit II: Communication Types	4
Nonverbal communication: detailed analysis, KOPPACT (Kinesics, Oculistics, Proxemics, Paralanguage, Artefacts, Chronemics, Tactilics).	
Unit III: Communication and Technology	5
Importance of digital literacy and communication on digital platforms.	
Unit IV: Presentation Skills	4
Planning, preparation, practice, and performance; audience analysis, audio-visual aids, analyzing the non-verbal communication, methods of delivery: impromptu, extemporaneous, memorization, manuscript, and outlining.	

Course Learning Outcomes:

- Students will be able to understand the basic processes of communication, both verbal as well as non-verbal—nature, scope, and power of communication processes.

- Students will be able to demonstrate cultural sensitivity in communication and appreciation of cultural variations of diverse socio-cultural contexts.
- Students will be able to develop an awareness of the role of mass media in shaping public psyche, beliefs, and perceptions about social realities and build an informed and critical perspective.
- Students will be able to analyze situations and audiences to make right choices about the most effective and efficient ways to communicate and deliver messages.
- Students will be able to assess various barriers in communication and develop communicative competence thereby for effective communication.

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages
P. D. Chaturvedi and Mukesh Chaturvedi	Business Communication: Concepts, Cases and Applications	Pearson Education	2006	9788131701720	516
Meenakshi Raman and Prakash Singh	Business Communication	Oxford University Press	2012	9780198077053	650
Jeff Butterfield	Soft Skills for Everyone	Cengage Learning	2017	9789353501051	628

Individual, Society and Nation

L	T	P	Total Credits
1	0	0	1

	Lecture Hours
Unit-1- Individual differences & Personality	4
<ul style="list-style-type: none"> • Personality: Definition & Relevance • Importance of nature & nurture in Personality Development • Importance and Recognition of Individual differences in Personality • Accepting and Managing Individual differences Intuition, Judgment, Perception & Sensation (MBTI) BIG5 Factors 	
Unit-2- Managing Diversity	4
<ul style="list-style-type: none"> • Defining Diversity • Affirmation Action and Managing Diversity • Increasing Diversity in Work Force • Barriers and Challenges in Managing Diversity 	
Unit-3- Socialization, Patriotism and National Pride	5
<ul style="list-style-type: none"> • Nature of Socialization • Social Interaction • Interaction of Socialization Process • Contributions to Society and Nation • Sense of pride and patriotism • Importance of discipline and hard work • Integrity and accountability 	
Unit-4- Human Rights, Values and Ethics	5

<ul style="list-style-type: none"> • Meaning and Importance of human rights • Human rights awareness • Values and Ethics- Learning based on project work on Scriptures like- Ramayana, Mahabharata, Gita etc. 	
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List of Professional Skill Development Activities (PSDA):

- Project on Understanding Diversity
- Term Paper on Patriotism among Youth

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages
Department of English , University of Delhi	The Individual & Society	Pearson Education	2010	978-8131704172	266
Umang Malhotra	Individual, Society, and the World	iUniverse	2004	978-0595662401	188
Tonja R. Conerly & Kathleen Holmes	Introduction to Sociology 3e	Openstax	2015	9781711493978	458
Daksh Tyagi	“A Nation of Idiots”	Every Protest	2019	978-8194275015	350

French Grammar

L	T	P	Total Credits
1	0	0	1

	Lecture Hours
Unit-I : My family and my house	4
Descriptors/Topics <ul style="list-style-type: none"> • Talk about your family members • Usage of possessive adjectives • Describe your house/apartment • Prepositions of location • Negation 	
Unit-II- Lifestyle	5
Descriptors/Topics <ul style="list-style-type: none"> • Talk about your hobbies and pastimes • Usage of appropriate articles : definite and contracted • Talk about your daily routine • Usage of pronominal verbs 	
Unit-III- In the city	4
Descriptors/Topics <ul style="list-style-type: none"> • Filling up a simple form • Ask for personal information • Usage of interrogative adjectives • Give directions about a place • Ordinal numbers • Usage of demonstrative adjectives 	
Unit-IV- Week-end	5
Descriptors/Topics <ul style="list-style-type: none"> • Talk about your week-end plans • Usage of disjunctive pronouns • Usage of Near Future tense • Talk about weather • Write a simple post card 	

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN No
Christine Andant, Catherine Metton, Annabelle Nachon, Fabienne Nugue,	A Propos - A1, Livre de l'élève et Cahier d'exercices.	Langers International Pvt. Ltd.	2010	978-9380809069
Collins Dictionaries	Easy Learning French Complete Grammar, Verbs and Vocabulary	Collins	2016	978-0008141721
Nikita Desai, Samapita Dey Sarkar	Apprenons La Grammaire Ensemble - French	Langers International Pvt. Ltd.	2017	978-8193002681

German Grammar

L	T	P	Total Credits
1	0	0	1

	Lecture Hours
Module I: Time (Uhrzeit); People and the World: Land, Nationalität und Sprache	4
<ul style="list-style-type: none"> • Introduction of time; Read text related to time and teach the students the time expressions; Exercises related to Time • Adverbs of time and time related prepositions • Vocabulary: Countries, Nationalities, and their languages • Negation: "nicht/ kein" • Ja/Nein Fragen. • All the colors and color related vocabulary, adjectives, and opposites • Exercises and comprehension for the same. 	
Module II: Irregular verbs (unregelmässige Verben)	5
<ul style="list-style-type: none"> • Introduction to irregular verbs and their conjugation e.g. fahren, essen, lesen etc • Read a text related to the eating habits of Germans • Vocabulary: Obst, Gemüse, Kleiderstück with usage of irregular verbs 	

<ul style="list-style-type: none"> • Free time and hobbies • Food and drinks 	
Module III: Accusative case: articles and pronouns (Akkusativ Kasus: Artikel und Pronomen)	4
<ul style="list-style-type: none"> • Introduction to the concept of object (Akkusativ) • Formation of sentences along with the translation and difference between nominative and accusative articles • Usage of accusative Definite articles • Usage of accusative Indefinite articles 	
Module IV: Accusative case: possessive pronouns (Akkusativ Kasus: Possessivpronomen) Family and Relationship	5
<ul style="list-style-type: none"> • Accusative Personal Pronouns: Revision of nominative personal pronouns, introduction of accusative. Applicability of pronouns for both persons and things. • Usage of accusative Personal Pronouns • Introduction of accusative possessive pronouns • Difference between nominative and accusative possessive pronouns • usage of accusative possessive pronouns 	

Text / Reference Books:

Author	Title	Publisher	Year	ISBN No	Pages
Dora Schulz, Heinz Griesbach	Deutsche Sprachlehre Fur Auslander	Max Hueber Verlag	1984	978-3190010066	-
Hartmut Aufderstrasse, Jutta Muller, Helmut Muller	Themen Aktuell: Glossar Deutsch	Max Hueber Verlag	2003	978-3190816903	-
Giorgio Motta	Wir Plus Grundkurs Deutsch fur Junge Lerner Book German Guide	Goyal Publishers	2011	9788183072120	248

Punjabi Language & Literature-II

L	T	P	Total Credits
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1	0	0	1
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Course content and syllabus

	Weightage (%)	Teaching Hours
Unit I:	25%	4 hours
<p>ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਕਹਾਣੀ ਦਾ ਅਧਿਐਨ (ਕਥਾ ਕਹਾਣੀ) ਕਹਾਣੀ ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ, ਪਾਤਰ-ਚਿਤਰਨ ਕਹਾਣੀਕਾਰ ਦੇ ਜੀਵਨ ਅਤੇ ਰਚਨਾ ਬਾਰੇ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ</p>		
Unit II:	25%	4 hours
<p>ਦਫ਼ਤਰੀ ਚਿੱਠੀ-ਪੱਤਰ ਰਚਨਾ ਚਿੱਠੀ-ਪੱਤਰ ਲੇਖਣ ਕਲਾ, ਮਹੱਤਤਾ ਅਤੇ ਕਿਸਮਾਂ ਦਫ਼ਤਰੀ ਚਿੱਠੀ-ਪੱਤਰ ਰਚਨਾ ਦੇ ਜ਼ਰੂਰੀ ਅੰਗ ਅਤੇ ਵੱਖ-ਵੱਖ ਵਿਸ਼ਿਆਂ ਅਨੁਸਾਰ ਵਿਹਾਰਕ ਅਭਿਆਸ</p>		
Unit III:	25%	5 hours
<p>ਵਿਆਕਰਨ ਸਿਧਾਂਤ ਅਤੇ ਵਿਹਾਰ</p> <ol style="list-style-type: none"> ਪੰਜਾਬੀ ਅਰਥ ਬੋਧ ਅਰਥਾਂ ਦੇ ਆਧਾਰ ਦੇ ਸ਼ਬਦਾਂ ਦੀਆਂ ਕਿਸਮਾਂ ਅਤੇ ਉਦਾਹਰਨਾਂ, ਸਮਾਨਰਥਕ ਸ਼ਬਦ, ਬਹੁਅਰਥਕ ਸ਼ਬਦ, ਵਿਰੋਧਾਰਥਕ ਸ਼ਬਦ, ਬਹੁਤੇ ਸ਼ਬਦਾਂ ਦੇ ਸਥਾਨ ਤੇ ਇੱਕ ਸ਼ਬਦ ਮੁਹਾਵਰੇ, ਅਖਾਣ : ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਉਦਾਹਰਨਾਂ ਪੰਜਾਬੀ ਵਾਕ ਬੋਧ ਵਾਕ ਪ੍ਰੀਭਾਸ਼ਾ, ਵਾਕ ਦੇ ਤੱਤ, ਪੰਜਾਬੀ ਵਾਕ ਤਰਤੀਬ ਵਾਕ ਵਰਗੀਕਰਨ: ਕਾਰਜ ਦੇ ਆਧਾਰ ਤੇ ਵਾਕਾਂ ਦੀਆਂ ਕਿਸਮਾਂ, ਬਣਤਰ ਦੇ ਆਧਾਰ ਤੇ ਵਾਕਾਂ ਦੀਆਂ ਕਿਸਮਾਂ 		

Unit IV:	25%	5 hours
ਵਿਆਕਰਨ ਸਿਧਾਂਤ ਅਤੇ ਵਿਹਾਰ 1. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਤੇ ਗੁਰਮੁਖੀ ਲਿੱਪੀ 2. ਭਾਸ਼ਾ, ਉਪਭਾਸ਼ਾ, ਟਕਸਾਲੀ ਭਾਸ਼ਾ ਅਤੇ ਪੰਜਾਬੀ ਦੀਆਂ ਉਪਭਾਸ਼ਾਵਾਂ		

Course Learning Outcomes:

- Understand modern Punjabi Stories.
- Interpret the importance of letter writing
- Analyze the Punjabi language structure and grammar.
- Examine the impact and importance of Punjabi dialects and Gurmukhi script on Punjabi language.

Text / Reference Books:

AUTHOR	TITLE	Publisher	Year of publication	ISBN	Pages
ਡਾ. ਧਨਵੰਤ ਕੌਰ (ਸੰਪਾ.),	ਕਥਾ ਕਹਾਣੀ	ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬ ਯੂਨੀਵਰਸਿਟੀ ਚੰਡੀਗੜ੍ਹ	2009	-	-
ਸੁਰਿੰਦਰ ਸਿੰਘ ਖਹਿਰਾ (ਸੰਪਾ.),	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਆਕਰਨ ਅਤੇ ਬਣਤਰ	ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ ਪਟਿਆਲਾ	2015	-	-
ਡਾ. ਹਰਕੀਰਤ ਸਿੰਘ,	ਕਾਲਜ ਪੰਜਾਬੀ ਵਿਆਕਰਨ ਅਤੇ ਲੇਖ ਰਚਨਾ	ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ ਬੁੱਕ ਬੋਰਡ, ਚੰਡੀਗੜ੍ਹ	1999	-	-

ਡਾ. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ	ਕਾਲਜ ਪੰਜਾਬੀ ਵਿਆਕਰਨ ਅਤੇ ਲੇਖ ਰਚਨਾ	ਮਦਾਨ ਪਬਲੀਕੇਸ਼ਨਜ਼, ਪਟਿਆਲਾ	2002	-	-
ਡਾ. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ	ਪੰਜਾਬੀ ਵਿਆਕਰਨ ਸਿਧਾਂਤ ਅਤੇ ਵਿਹਾਰ	ਚੇਤਨਾ ਪ੍ਰਕਾਸ਼ਨ, ਪੰਜਾਬੀ ਭਵਨ, ਲੁਧਿਆਣਾ	2012	-	-
ਡਾ. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਸ਼੍ਰੇਣੀ ਅਤੇ ਸਰੂਪ	, ਵਾਰਿਸ ਸ਼ਾਹ ਫ਼ਾਊਂਡੇਸ਼ਨ, ਅੰਮ੍ਰਿਤਸਰ	2012	-	-
ਦੁਨੀ ਚੰਦ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਣ	, ਪੰਜਾਬ ਯੂਨੀਵਰਸਿਟੀ ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਚੰਡੀਗੜ੍ਹ	1995	-	-
ਜੋਗਿੰਦਰ ਸਿੰਘ ਪੁਆਰ ਅਤੇ ਹੋਰ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਨ (ਭਾਗ 1,2,3),	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ ਜਲੰਧਰ	2003	-	-
ਸੁਖਵਿੰਦਰ ਸਿੰਘ ਸੰਘਾ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ ਜਲੰਧਰ	2010	--	-
ਅਗਨੀਹੋਤਰੀ, ਵੇਦ	ਪਰਿਚਾਇਕ ਭਾਸ਼ਾ ਵਿਗਿਆਨ	ਦੀਪਕ ਪਬਲਿਸ਼ਰਜ਼ ਜਲੰਧਰ	1981	-	-

History and Culture of Punjab-II

	Lecture Hours
Unit I:	4
The Mauryan Empire: Social, economic, and religious life Buddhism and Jainism: Impact on Punjab with special reference to 4th Buddhist Council. The Kushans: Impact of Kanishka's rule on Punjab	
Unit II:	5
Gandhara School of Art: Salient features. The Guptas: Cultural and scientific developments. Position of Women: Under the Mauryas, the Guptas and the Vardhanas.	
Unit III:	4
Depiction of Punjab in the accounts of Chinese travellers: Fahien and Huen Tsang: Main developments in literature. Education: Significant developments; Taxila	
Unit IV:	5
Society and Culture on the eve of the Turkish invasion of Punjab. Punjab in the Kitab-ul-Hind of Alberuni.	

L	T	P	Total Credits
1	0	0	1

Text / Reference Books:

- 1.Joshi, L.M (ed.): **History and Culture of the Punjab, Part-I**, Publication Bureau, Punjabi University, Patiala, 1989 (3rd ed.)
- 2.Joshi, L.M and Fauja Singh: **History and Culture of the Punjab, Vol. I**, Punjabi University, Singh(eds), Patiala, 1977
- 3.Prakash, **Buddha: Glimpses of Ancient Punjab**, Punjabi University, Patiala, 1983
- 4.Thapar, Romila: **A History of India**, Vol. I, Penguin Books, 1966

5. Basham, A.L: **The Wonder That was India**, Rupa Books, Calcutta (18th rep.), 1992

6. Sharma, B.N: **Life in Northern India**, Munshi Ram Manohar Lal, Delhi, 1966

Environmental Studies-II

L	T	P	Total Credits
2	0	0	2

	Lecture Hours
Unit-1- Environmental Pollution	9
Environmental Pollution: types, Cause, effects and controls –Air, water, soil, chemical and noise pollution. Nuclear hazard and human health risk Solid waste Management-control measures of urban and industrial waste. Pollution case studies.	
Unit-2- Environmental Policies and practices	9
Environmental Policies and practices: Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment laws: Environment Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act, international agreements: Montreal and Kyoto protocols and convention on biological diversity(CBD), The Chemical Weapons Convention (CWC). Natural reserves, tribal population and rights and Human-wildlife conflict in Indian context.	
Unit-3- Human communities and the Environment	9

Impacts on environment, human health and welfare. Carbon foot-print. Resettlements and rehabilitation of project affected persons, case studies. Disaster management: floods, earthquake, cyclone and landslides. Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan. Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).	
Unit-4- Field work	9
Visit to an area to document environmental assets: river/forest/flora/fauna, etc. Visit to local polluted Site-Urban/Rural/Industrial/Agricultural Study of common plants, insects, birds and basic principles of identification. Study of simple ecosystems-pond, river, Delhi Ridge, etc.	

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages
William P. Cunningham, Mary Ann Cunningham	Principles of Environmental Science	McGraw-Hill	2019	9781260219715	--
William P. Cunningham, Mary Ann Cunningham, Barbara Woodworth Saigo	Environmental Science: A global concern,	McGraw-Hill	2021	9781260363821	--
Gurjar B. R., Molina L.T., Ojha C.S.P. (Eds.)	Pollution: Health and Environmental Impacts	CRC	2010	9781439809624	--
Elaine M.A. and Bugyi G.(Eds.)	Impact of Water Pollution on Human Health and Environmental Sustainability	Idea Group, U.S	2016	978-1466695597	--

	(Practice, Progress, and Proficiency in Sustainability)				
Bryant E.	Natural Hazards, 5th Edition	Cambridge University Press	2004	978-0521537438	--
Keith Smith	Environmental Hazards Assessing Risk and Reducing Disaster	Oxford University Press	2013	978-0415681063	--

BA (Economics) Honours- 4 years with Research (3rd semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
1	ECN 201	Intermediate Microeconomics-I	Core Course	6	0	0	6
2		Intermediate Macro Economics-I ECN 202	Core Course	6	0	0	6
3	ECN203	Statistical methods for Economists	Core Course	6	0	0	6
4	ECN204	Public Finance	Allied Course	6	0	0	6
5	ECN 205	Research Methodology-I	Employability & Skill Enhancement Course	2	0	0	2

		Total Credits		26
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Intermediate Microeconomics-I

Course content and syllabus

L	T	P/ S	SW/F W	Total Credit Units
6	0	0	0	6

	Lecture Hours
Unit I: Consumer Theory	28
<ul style="list-style-type: none"> Budget constraint; properties of budget set, how budget line changes. Preference; Indifference curves, Marginal rate of substitution. Utility; perfect substitutes, perfect complements, Choice; optimal choice; neutrals and bads, discrete goods, concave preferences. Demand; income offer curves and Engel curves, price offer curve and demand curve. Revealed preference, Weak Axiom of Revealed Preference, Strong Axiom of Revealed Preference Index Numbers, Price Indices. 	
Unit II: Consumer Behavior	28
<ul style="list-style-type: none"> Slutsky equation; the substitution effect, the income effect, sign of substitution effect, the total change in demand, rates of change, Law of demand and compensated demand curve. 	

<ul style="list-style-type: none"> • Buying and Selling: Net and Gross Demands, The Budget Constraint, Changing the Endowment, Price Changes, Offer Curves and Demand Curves • The Slutsky Equation Revisited, Use of the Slutsky Equation • Intertemporal choice and Slutsky Equation • Uncertainty and risk aversion: Choice involving risk, Describing Risk, Different Preferences towards Risk, Reducing Risk, Demand for Risky assets, Trade off between Risk and Return 	
Unit III: Production Behavior	26
<ul style="list-style-type: none"> • Technology : Inputs and Outputs, Describing Technological Constraints, Examples of Technology • Fixed Proportions, Perfect Substitutes • Properties of Technology, The Marginal Product, The Technical Rate of Substitution, Diminishing Marginal Product Diminishing Technical Rate of Substitution The Long Run and the Short Run, Returns to Scale Production Functions ; • Homogenous and homothetic production functions; • Cobb Douglas and CES production functions : Properties ; • Elasticity of substitution ; Eulers theorem. 	
Unit IV: Competitive Firm Behavior	26
<ul style="list-style-type: none"> • Perfect competition: Assumptions: theory of a firm under perfect competition, demand and revenue; • Equilibrium of the firm in the short run and long run; • long run industry supply curve: Increasing, decreasing and constant cost industries. • Price controls: Price Ceiling; price floors; production import quotas • Welfare: allocative efficiency under perfect competition. 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies,

and research data output related to the subject.

- Develop an understanding of basic elements of consumer theory.
- Assess diverse situations of production theory.
- Analyze the functioning of perfectly competitive market.
- Evaluate the impact of microeconomics on individual decision making as consumers & producers.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Gregory Mankiw	Economics: Principles & Applications	Thomson Press (India) Ltd	2008	978-8131505779	
C. Snyder and W. Nicholson	Fundamentals of microeconomics	Cengage Learning	2010	978-8131514085	684
Hal Varian	Intermediate microeconomics: A modern approach	W. W. Norton	2010	978-8176710657	
H.L. Ahuja	Principles Of Microeconomics	S Chand Publishing	2016	978-9352533305	872

Intermediate Macroeconomics I

L	T	P/S	SW/F W	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture hours
Unit 1: The labour market	26
<ul style="list-style-type: none"> • Wage determination; wages, prices and employment. • Natural rate of unemployment; from employment to output 	
Unit 2 : Aggregate demand and aggregate supply curves	28
<ul style="list-style-type: none"> • Derivation of aggregate demand and aggregate and supply curves • Interaction of aggregate demand and supply to determine equilibrium output, price level and employment 	
Unit 3 : Inflation, unemployment and expectations	26
<ul style="list-style-type: none"> • Theories of Inflation: Classical Quantity Theory • Philips curve: Short Run • Adaptive and rational expectations • Long Run Expectation augmented Philips Curve • Concepts of NAIRU and NRU • Critique of Friedman Philips Curve • Policy ineffectiveness debate 	
Unit 4 : Microeconomic foundations	28
<ul style="list-style-type: none"> • Consumption: Keynesian consumption function • Fisher's theory of optimal intertemporal choice • Lifecycle and permanent income hypotheses • rational expectations and random walk of consumption expenditure • Investment: determinants of business fixed investment • Residential investment and inventory investment • Demand for money 	

Course Learning Outcomes:

- This course enables students to analyse the macroeconomic performance of various countries using formal analytical tools.
- It also allows them to evaluate important macroeconomic policies and their implications on economy.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Abel, A., Bernanke, B	Macroeconomics	Pearson Education	2016	9780134167398	672
Blanchard, O.	Macroeconomics	Pearson Education	2018	9789353945220	576
Dornbusch, R., Fischer, S., Startz, R	Macroeconomics, 12th ed	McGraw- Hill	2018	9780073375922	636
Mankiw, N	Macroeconomics	Worth Publishers	2016	9789386668424	408

Statistical Methods for Economists

Course content and syllabus

L	T	P/ S	SW/F W	Total Credit Units
6	0	0	0	6

	Lecture Hours
Unit I: Introduction and Measures of Central Tendency and Dispersion	26
<ul style="list-style-type: none"> • Meaning and scope of statistics, Collection of data, presentation of data, diagrammatic representation of data. Attributes and variables, discrete and continuous frequency distribution of a variable. • The distinction between populations and samples and between population parameters and sample statistics • Measures of Central Tendency- Mean, Median, Mode; definition, measure, properties, merits and demerits. • Measures of Dispersion- Meaning, importance, absolute and relative measures of dispersion. 	
Unit II: Correlation Analysis and Regression Analysis	26
<ul style="list-style-type: none"> • Correlation Analysis: Significance and meaning and types of correlation, Methods of correlation analysis: Scatter diagrams, Karl Pearson's correlation, Spearman's rank correlation, Properties of Correlation. • Regression analysis: Meaning and types of Regression, Regression Lines, Relationship between correlation and regression coefficients. 	
Unit III: Probability Theory	28
<ul style="list-style-type: none"> • Elementary probability theory: Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence • Random variables and probability distributions: Defining random variables; probability distributions; expected values and functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, exponential, Poisson, hypergeometric and Normal random variables) • Random sampling and jointly distributed random variables: Density and distribution functions for jointly distributed random variables; 	

computing expected values of jointly distributed random variables; covariance and correlation coefficients	
Unit IV: Index Numbers and Time Series Analysis	28
<ul style="list-style-type: none"> • Index Numbers: Meaning, scope and limitations, types, formulae. • Tests for the consistency of index numbers. • Time Series Analysis: Introduction, Objectives, models of time series, Identification of trend-and measurement of variations in time series. Secular, Cyclical, Seasonal and irregular variations. 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

- Clear understanding of the key concepts and principles of statistics
- Estimate population parameters based on random samples and test hypotheses about these parameters
- Knowledge relating to data analysis techniques, data visualization over a period of time.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
J. Devore	Probability and statistics for engineers	Cengage Learning	2012	978-8131518397	768
R. Larsen and M. Marx	An introduction to mathematical statistics and its applications.	Prentice Hall.	2011	978-0134871745	640

I. Miller and M. Miller	J. Freund's mathematical statistics with applications	VK Global Publications Private Limited	2017	978- 9332519053	476
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Public Finance

Course content and syllabus

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

	Lecture Hours
Unit I: Introduction to Public Finance	26
<ul style="list-style-type: none"> • Meaning, Nature, Scope and Importance of Public Finance • Private Finance • Principle of Maximum Social Advantage • Market Failure, Public Goods, Private Goods, Merit Goods, Free Riding, Externalities, Coase Theorem 	
Unit II: Public Revenue	26

<ul style="list-style-type: none"> • Sources of Revenue: Tax and Non-Tax • Cannons of Taxation • Types of direct and indirect taxes, proportional, progressive, regressive, single, multiple taxes • Taxable capacity • Concept of Tax Elasticity and Tax Buoyancy • Incidence & impact: Dalton and Musgrave concept of incidence of taxation • Theories of Incidence of Taxation: Diffusion, concentration and the modern theory • Structure and Trends of Tax Revenue in India 	
Unit III: Public Expenditure and Public Debt	28
<ul style="list-style-type: none"> • Meaning and reasons for the growth of Public Expenditure • Principles of Public Expenditure • Development and Non-Development Expenditure, • Effects of Public Expenditure: on production, distribution of resources and on economic development and stability • Theories: Wagner's Law, Peacock-Wiseman, Colin-Clark's critical limit theory, determinants • Public Debt: Meaning, types, sources of internal and external public debt, effects, methods of repayment • Trends in India, FRBM Act 	
Unit IV: Indian Public Finances	28
<ul style="list-style-type: none"> • Tax System: structure and reforms • GST in India • Budget: concepts, instruments and objectives, deficits and public debt; • Fiscal federalism in India: Fiscal Policy for development, allocation, distribution and Stabilization 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

- Clear understanding of the key concepts and principles of public finance
- Analyze government policy from the viewpoint of equity and efficiency
- Critically appraise the role of the state

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
B.P. Tyagi	Public Finance	Jai Prakash Nath Co.	2015	978-9384538378	768
H.L. Bhatia	Public Finance	VK Global Publications Private Limited	2012	978-9325960008	698
R. Musgrave and P. Musgrave	Public Finance in Theory and Practice	McGraw Hill International Edition	2017	978-0070596931	648

Research Methodology-I

Course Contents/syllabus:

L	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

	Lecture Hours
Unit-1 Introduction to Research	9
<ul style="list-style-type: none"> • Foundations of Research: Meaning, Objectives, Motivation, Utility. • Concept of theory, empiricism, deductive and inductive theory. • Characteristics of scientific method – Understanding the language of research Concept, Construct, Definition 	
Unit-2 Research Process and Data	9
<ul style="list-style-type: none"> • Research Process, Concept and Importance in Research, • Types of Research. • Research Design: Definition, types of research design-descriptive, exploratory and experimental. 	
Unit-3- Data	9
<ul style="list-style-type: none"> • Data Collection: Definition of Primary and Secondary Data – Difference between primary and secondary Data- Sources, Characteristics, Advantages and Disadvantages of Primary and Secondary data • Data types and sources: Qualitative and Quantitative data, • Scales of Measurement; • Institutions and Sources of Secondary data for Research in Economics 	
Unit-4- Questionnaire	9
<ul style="list-style-type: none"> • Designing Sample questionnaires: Questionnaire Construction • Understanding of Observation method, Personal Interviews, Telephonic Interview, Mail Survey, Email/Internet survey 	

Course Learning Outcomes: At the end of this course, the students will be able to

- Understand the importance and types of research.
- Comprehend with various research designs and data collection techniques.
- Appraise with various sampling procedures and analyze data through various techniques.

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages

R. Kothari	Research Methodology: Methods and Conditions	Tata New Age international Publishers, India	2019	978- 9386649225	480
Deepak Chawla and Neena Sondhi	Research Methodology: Concepts and Cases.	Vikas Publishing, India	2016	978- 9325982390	680
D. Cooper	Business Research Methods	McGraw-Hill Education	2018	978- 9353161194	890

BA (Economics) Honours- 4 years with Research (4nd semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
1	ECN 206	Intermediate Microeconomics-II	Core Course	6	0	0	6
2	ECN 207	Intermediate Macro Economics-II	Core Course	6	0	0	6
3	ECN 208	Introductory Econometrics	Core Course	6	0	0	6
4	ECN 209	Environmental Economics	Allied Course	6	0	0	6
5	ECN 210	Research Methodology-II	Employability & Skill Enhancement Course	2	0	0	2
		Total Credits		26			

Intermediate Microeconomics-II

Course content and syllabus

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

	Lecture Hours
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Unit I: Imperfect Competition	28
<ul style="list-style-type: none"> • Monopoly; shapes of AR and MR curves, Monopolist's output and pricing decision; • Absence of SS curve in Monopoly, shifts of demand curve • Monopoly Power: measurement of market power; Rule of thumb for pricing, Sources of Monopoly power, Social costs of monopoly power- Rent Seeking • Regulation of Monopoly • Natural Monopoly • Multiplant monopoly • Price discrimination; Capturing consumer surplus, Three degrees of price discrimination, Inter temporal; peak-load pricing; two-part tariff • Monopolistic competition: price and output determination in short and long run, concept of excess capacity • Economic efficiency and resource allocation 	
Unit II: Imperfect Competition- Strategic Decision Making	28
<ul style="list-style-type: none"> • Oligopoly; Price leadership; • Cournot, Stackleberg and Bertrand Models • Competition Vs Collusion: Prisoner's Dilemma • Price Rigidity: Paul Sweezy Kinked DD Curve Model • Price Siganalling and Price Leadership: Low cost firm, Dominant size of Cartel Pricing • Game theory and competitive strategies • Dominant Strategy; Mixed strategies • Repeated and Sequential games 	
Unit III: General Equilibrium, Efficiency and Welfare	26

<ul style="list-style-type: none"> • Meaning of Partial and General Equilibrium Analysis, Pareto Optimality Criteria: 3 marginal conditions, Equilibrium and efficiency under pure exchange and production using Edgeworth Box and Contract Curve, overall efficiency • Welfare economics; Value Judgements, Social welfare functions: Bergson-Samuelson Social Welfare Function Classical Utilitarian or Benthamite Welfare Function, Weighted sum of Utilities Welfare Function, Minimax or Rawlsian social welfare function • Isowelfare Curves, Utility Possibility Curve and Grand UPC, Welfare maximisation, envy and equity • Compensation Criteria: Kaldor, Hicks and Scitovsky 	
Unit IV: Market Failure	26
<ul style="list-style-type: none"> • Externalities; Production and Consumption, Negative Externalities and Inefficiency, Positive Externalities and Inefficiency, Ways of Correcting Market Failure: Emission Standards, Emission Fees, Stand Vs Fee, Transferable permits • Externalities and Property Rights: Bargaining, Coase Theorem • Public Goods: characteristics, Provision of Public Goods, Free Riding, Different Levels of Public Goods. Common Property Resources • Asymmetric Information: Market for Lemons, Market Signalling, Adverse Selection, Moral Hazard, Principal-Agent Problem. 	

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

- Develop an understanding of basic elements of monopoly and monopolistic competition.
- Assess diverse situations of strategic decision-making situations.
- Analyze the functioning of General equilibrium and welfare.
- Evaluate the impact of market failure situations like externalities, public goods and asymmetric information.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Gregory Mankiw	Economics: Principles & Applications	Thomson Press (India) Ltd	2008	978-8131505779	
C. Snyder and W. Nicholson	Fundamentals of microeconomics	Cengage Learning	2010	978-8131514085	684
Hal Varian	Intermediate microeconomics: A modern approach	W. W. Norton	2010	978-8176710657	
H.L. Ahuja	Principles Of Microeconomics	S Chand Publishing	2016	978-9352533305	872

**Intermediate Macroeconomics-II
Course content and syllabus**

	Lecture hours
Unit 1: Economic growth	28
<ul style="list-style-type: none"> • Harrod-Domar model • Solow model • Golden rule • Technological progress • Economics of ideas • Engines of growth • Modern theories of endogenous growth 	
Unit 2 : Business cycles	26
<ul style="list-style-type: none"> • History of Business Cycles • Traditional theories of business cycles: Sun-spot theory, Hawtrey monetary theory, Karl Marx Under consumption theory and Hayek's monetary version of over investment theory • Views of Different Schools of Thoughts on the occurrence of Business Cycles: Classicals, Keynes, Monetarists, New Classicals and Rational Expectations • Real business cycle theory • New Keynesian models of sticky prices 	
Unit 3 : Open economy models	28
<ul style="list-style-type: none"> • Short-run open economy models; Mundell-Fleming model : in case of fixed and flexible exchange rate regime; • Exchange rate determination; • Purchasing power parity; • Asset market approach; • Dornbusch's overshooting model; • Monetary approach to balance of payments; • International financial markets 	
Unit 4 : Fiscal and monetary policy	26
<ul style="list-style-type: none"> • Economic stability through expansionary and tight monetary policy • Economic stability through discretionary and non-discretionary fiscal policy • Active or passive; monetary 	

<ul style="list-style-type: none"> • Policy objectives and targets; their trade-off and Tinbergen's fixed target approach • Rules versus discretion: Time consistency; • The government budget constraint; • Government debt and Ricardian equivalence 	
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Course Learning Outcomes:

- This course will enable students to combine their knowledge of the working of the macroeconomy with long run economic phenomena like economic growth, technological progress, R&D and innovation.
- It will also enable students to understand business cycles and the concomitant role of policies.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Abel, A., Bernanke, B	Macroeconomics	Pearson Education	2016	9780134167398	672
Blanchard, O.	Macroeconomics	Pearson Education	2018	9789353945220	576
Dornbusch, R., Fischer, S., Startz, R	Macroeconomics, 12th ed	McGraw- Hill	2018	9780073375922	636
Mankiw, N	Macroeconomics	Worth Publishers	2016	9789386668424	408

Introductory Econometrics

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course content and syllabus

	Lecture Hours
Unit I: Introduction to Econometrics	26
<ul style="list-style-type: none">• Nature and Scope of Econometrics,• Methodology of Econometrics.• Specification of an econometric model.• Nature of Data used in estimation.	
Unit II: Simple and Multiple Regression Models	26
<ul style="list-style-type: none">• Estimation of model by method of ordinary least squares;• properties of the least squares estimators (BLUE properties),• the Gauss-Markov theorem.• Goodness of fit-R²& Adjusted R²• Tests of hypotheses;• confidence intervals.	
Unit III: Econometric Problems	28
<ul style="list-style-type: none">• Relaxing the Assumptions• Multicollinearity: Nature, Consequences, Detection and Remedial measures of the problems• Heteroscedasticity: Nature, Consequences, Detection and Remedial measures of the problems• Autocorrelation: Nature, Consequences, Detection and Remedial measures of the problems	
Unit IV: Specification Errors	28
<ul style="list-style-type: none">• Tests of Specification and misspecification• Omission of a relevant variable;• Inclusion of irrelevant variable;• Errors of measurement in dependent and independent variables.• Model Selection Criteria.	

Course Learning Outcomes: By the end of the course student will be able to

- Comprehend the nature and scope of econometrics and development of regression models and the estimation methods.
- Identify the problems which may arise in the error term and the corresponding remedial measures for the same.
- Analyze econometric models to explain certain economic relationships and their implementation for drawing inferences for the same.
- Develop among the judgement of the model specification for econometric estimation.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
D. Gujarati	Basic Econometrics	New York: McGraw Hill	2015	978-0070597938	1002
G.M.K. Madnani	Introduction to Econometrics: Principles and Applications	Oxford and IBH Publishing Co. Pvt Ltd	2012	9788120417199	635
G. Maddala	Introduction to Econometrics	New York: MacMillan	2017	9780023745454	464

L	T	P/S	SW/FW	Total Credit
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Environmental Economics

				Units
6	0	0	0	6

Course content and syllabus

	Lecture Hours
Unit I: Introduction to Environmental Economics	26
<ul style="list-style-type: none"> Nature and significance of environmental economics, definition and scope of environmental economics, basic theory, market system and the environment – welfare and environment – the economics of externalities. Review of microeconomics and welfare economics The theory of externalities: Pareto optimality and market failure in the presence of externalities, property rights and the Coase theorem 	
Unit II: Environmental Policy and Solutions	26
<ul style="list-style-type: none"> The design and implementation of environmental policy: overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; Implementation of environmental policy Solutions to environmental problems: Conventional Policy – Environmental Standards, Efficiency of Environmental Standards, Command and Control Approach, Market Based Policy – Pollution Charges and Environmental Subsidies, Deposit Refund System, Environmental Regulations in India. 	
Unit III: International environmental problems	28
<ul style="list-style-type: none"> International Environmental Problems : Trans-boundary environmental problems; Measuring the Benefits of Environmental Improvements , Non-Market values and measurement methods; 	

Unit IV: Sustainable Development	28
<ul style="list-style-type: none"> • Sustainable Development Concepts; measurement. • Environmental Accounting – Concept, • Economics of climate change; trade and environment • Common Property Resources and LDCs 	

Course Learning Outcomes: By the end of the course student will be able to

- Acquire the fundamental understanding of nature and significance of Environmental Economics.
- Examine various solutions to environmental problems.
- Appraise the matters relating to international environmental problems.
- Develop fundamental understanding of pollutants that travel across country boundaries and how environmental regulations affect trade flows

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
C. Kolstad	Intermediate environmental economics	Oxford University Press.	2010	978-0198091783	416
Raj Madhu	Environmental Economics	Ivy Publishing House.	2001	978-8178900063	
Jhingan	Environmental Economics,	Vrinda	2009	978-	

M.L & Sharma, Chander K.	Theory Management & Policy	Publications		8182811140	
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Research Methodology-II

L	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course Contents/syllabus:

	Lecture Hours
Unit-1 Sampling	9
<ul style="list-style-type: none"> Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Rule of thumb for Sample Size Selection, Non-Response. Characteristics of a good sample. 	
Unit-2- Probability Sampling	9
<ul style="list-style-type: none"> Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage sampling. Determining size of the sample – Practical considerations in sampling and sample size. 	
Unit-2 Data Processing, Cleaning and Coding	9
<ul style="list-style-type: none"> Errors in surveys: Misunderstanding of questions and answers; problem of non-response Processing of survey data: Cleaning of data and its coding 	
Unit-4-Ethics and Data Analysis	9
<ul style="list-style-type: none"> Ethics and scientific integrity: Standards of conduct, privacy in data Data Analysis: Tabulation of Data & Data Preparation, Descriptive statistics, Correlation, Regression, Report Writing. 	

Course Learning Outcomes: At the end of this course, the students will be able to

- Understand the importance and types of sampling.
- Comprehend with various probability sampling and data collection techniques.

- Appraise with data analysis through various techniques.
- Execute report writing and presentation of results.

Text / Reference Books:

Author	Title	Publisher	Year of publication	ISBN	Pages
R. Kothari	Research Methodology: Methods and Conditions	Tata New Age international Publishers, India	2019	978-9386649225	480
Deepak Chawla and Neena Sondhi	Research Methodology: Concepts and Cases.	Vikas Publishing, India	2016	978-9325982390	680
D. Cooper	Business Research Methods	McGraw-Hill Education	2018	978-9353161194	890

BA (Economics) Honours- 4 years with Research (5th semester)

S.No	Course Code	Course Title	Course Type	Credits	Credit Units
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				L	T	P	
1	ECN301	Indian Economy-I	Core	6	0	0	6
2	ECN302	Economics of Growth and Development-I	Core	6	0	0	6
3	ECN303	Applied Econometrics	Allied	6	0	0	6
4	ECN304	Political Economy of India	Allied	6	0	0	6
5	ECN305	Contemporary Economic Issues-I	Employability & Skill Enhancement Course	2	0	0	2
		Total Credits		26			

Indian Economy I

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture hours
Unit 1: State of Economy	28
<ul style="list-style-type: none"> • Economic Development since Independence: State of the Indian economy at the Independence. • Changes in the structure of the Indian economy. • Adoption of Planning in India. Objectives, Strategy and Appraisal of Planning in India. • Outcomes of Planning in India • State Vs Market Debate 	
Unit 2 : Population and Education	26
<ul style="list-style-type: none"> • Human Capital: Demography, health and education 	

<ul style="list-style-type: none"> • Demographic Transition in India: Changes in fertility rates, Infant Mortality and Sex Ratio and Life Expectancy • Education Policies in Independent India • Growth of Educational Institutions and Enrolment Ratio 	
Unit 3 : Growth and Inequality	28
<ul style="list-style-type: none"> • Inequality: Concept, Inequality axioms; empirical evidence in India; measures to overcome the inequality • Comparison of commonly used inequality measures: Lorenz curve, Gini coefficient, coefficient of variation and Theil's index • Connections between inequality and development: Kuznet inverted-U hypothesis • Poverty measurement (methodology); Poverty gap, Multidimensional Poverty Index; characteristics of the poor • Unemployment: concept, measures and policy interventions and outcomes 	
Unit 4 : Indian Economy in Comparative perspective	26
<ul style="list-style-type: none"> • International comparisons with emerging economies such as China, Brazil, South Korea • International comparisons with its developed counterparts 	

Course Learning Outcomes: At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well-being.

List of Professional Skill Development Activities (PSDA):

1. Understand the development paradigm adopted in India since independence and write a Term assignment.
2. Write a seminar paper on evaluate India's development strategy during post-independence period and its impact on economic as well as social indicators of progress and well-being

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Bardhan, P	Awakening giants, feet of clay: Assessing	Princeton University Press	2012	9780198068327	526

	the economic rise of China and India				
Dreze, J., Sen	India: An uncertain glory	Allen Lane	2013	9780141992624	480
Bhagwati, J., Panagariya	India's tryst with destiny	Collins Business	2012	9789351367765	340

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Economics of Growth and Development-I

Course content and syllabus

	Lecture hours
Unit 1: Conceptions of Development	27
<ul style="list-style-type: none"> • Concept and meaning of economic growth and development • Measurement of economic development, Alternative measures of development, Documenting the international variations in these measures • Sources of economic growth and development. • Factors in economic development: Natural Resources, Population, Capital, Human resource development and Infrastructure • Comparing development trajectories across nations and within them. • Sustainable development and SDGs (Conceptualization, Concerns, Indicators, and Remedial Measures) 	

Unit 2 : Underdevelopment and Development– Growth models–Theories and Models of Economic growth and development	27
<ul style="list-style-type: none"> • Theories: David Ricardo, Karl Max, Schumpeter and Rostow’s theory of stages of economic growth • Vicious circle off poverty and Nelson’s low-level equilibrium trap, Nurkse’s theory of disguised unemployment. • Dependency theory of underdevelopment: Imperialism and Colonialism; New Imperialism, new colonialism and dependency: its forms and effects. • Meaning of Dualism, its characteristics and forms (Dualistic theories) • Growth models: Application and review of Harrod-Domar model, Solow model and its variants • Endogenous growth models- Romer’s model and Lucas Model • Evidence on the determinants of growth 	
Unit 3 : Investment and Labour	27
<ul style="list-style-type: none"> • Investment Criteria: Need and types of investment criteria: Social Marginal Productivity criteria, Capital Turnover criteria, Re-investment criteria, Time-series criteria and Balance of Payments criteria • Labour theories: Lewis’s theory of unlimited supply of labor, Fei-Ranis theory • Choice of Technique: Labour-intensive vs Capital-intensive. • Labour Market reforms- Safety requirements, National Commissions of labour, Globalisation and labour markets. • Migration and Development: Todaro model of growth 	
Unit 4 : Political Institutions and the Functioning of the State	27
<ul style="list-style-type: none"> • The determinants of democracy • Alternative institutional trajectories and their relationship with economic performance • Within-country differences in the functioning of state institutions; • State ownership and regulation; • Government failures and corruption 	

Course Learning Outcomes:

- This course introduces students to the basics of development economics, with in-depth discussions of the concepts of development, growth, poverty, inequality, as well as the underlying political institutions

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Sen, A	Development as freedom	Oxford University Press	2000	9780385720274	384
Deaton, A	The great escape: Health, wealth and the origins of inequality	Princeton University Press	2013	9780385720274	376
Banerjee, A., Benabou, R., Mookerjee, D. (eds.)	Understanding poverty	Oxford University Press.	2006	9780195305203	496

Applied Econometrics

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course content and syllabus

	Lecture Hours
Unit I: Simultaneous Equations Models	26
<ul style="list-style-type: none">• Nature of SEM's, Simultaneous Equation Bias, Identifications Problem.• Rank and Order Conditions. Testing Identification of Economic Models.• Estimation of SEM'S : ILS, 2SLS, 3SLS .Method of Instrumental Variables	
Unit II: Dummy variables and Qualitative Response Regression Models	26
<ul style="list-style-type: none">• Dummy Explanatory Variables and Their Use to Test Equality to Two Regressions; Chow Test and Dummy Variable Approach.• Nature of Qualitative Response models.• Description and Estimation of Linear Probability Model and Problems.• Logit , Probit and Tobit Models.	
Unit III: Panel Data Models	28
<ul style="list-style-type: none">• Introduction: Advantages and Issues Involved in Utilizing Panel Data.• Simple Panel Data Models: Fixed Effects (LSDV) and Random Effects Approach.• Distributed Lag and Autoregressive Models:• Introduction and Nature of Distributed Lag (DL) & Auto Regressive (AR) Model. Koyck Approach for• Estimation of DL & AR Models Rationalization of Koyck Approach by Adaptive Expectation and• Partial Adjustment Hypothesis; Almon's Polynomial Approach.	
Unit IV: Time Series Analysis	28

<ul style="list-style-type: none"> • Testing Casualty in Economics: Granger Causality Test. • Stationarity, Test of Stationarity, Spurious Regression, Unit Roots, Dickey-Fuller • Test, Cointegration, Engle Granger Test. • Forecasting: AR, MA and ARIMA processes, Box Jenking Methodology. • Vector Auto Regression (VAR) Model, Introduction, Formulation, Estimation and Problems. 	
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List of PSDA Activities:

1. Every student to present simultaneous equation modelling.
2. Each student to submit an analysis of Time series and panel data.

Course Learning Outcomes: By the end of the course student will be able to

- Initiate effective use of econometrics for economic problems through regression analysis.
- Have theoretical and practical understanding of time series data
- Have theoretical and practical understanding of panel data
- Develop analytical abilities among students for data handling and econometric modelling.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
D. Gujarati	Basic Econometrics	New York: McGraw Hill	2015	978-0070597938	1002
G.M.K. Madnani	Introduction to Econometrics:	Oxford and IBH	2012	9788120417199	635

	Principles and Applications	Publishing Co. Pvt Ltd			
G. Maddala	Introduction to Econometrics	New York: MacMillan	2017	9780023745454	464

Political Economy

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course content and syllabus

	Lecture hours
Unit 1: Analysing Social Change in Historical Perspective	28
<ul style="list-style-type: none"> Political Economy: Concept and evolution, Brief understanding of Political economy approach; Historical Materialism: Concept and theory, The method of historical materialism and its Criticism; Pre-communism to Slavery, Disintegration of slavery Feudalism, The transition from feudalism to capitalism; 	
Unit 2 :Capitalism as an Evolving Economic System	26
<ul style="list-style-type: none"> Capitalism: Basic features; Capitalism as a historical process – alternative perspectives Accumulation and crisis; Monopoly capitalism— alternative perspectives 	
Unit 3 :The State in Capitalism	26
<ul style="list-style-type: none"> The state and the economy – contestation and mutual interdependence; the state as an arena of conflict Imperialism – the basic foundations; Imperialism and the classes; Imperialism and the states, Limits of Imperialism The making of socialist consciousness 	
Unit 4 : Changing Dynamics of Capitalist Production	28
<ul style="list-style-type: none"> Capitalist development in the pre-Second World War period, The 'Golden Age' and later Organisational Form and Labour Process: Fordist and Post-Fordist production The changing dynamics of the organisation of production, markets and labour process 	

- | | |
|---|--|
| <ul style="list-style-type: none"> • The evolution of the multinational corporations and their economic logic • The contemporary forms value chain networks and forms of inter-firm governance • The changing nature of employment, job security and labour rights | |
|---|--|

List of Professional Skill Development Activities (PSDA):

1. Students learn to assimilate from a diverse range of opinions and crystallize their own thought processes and standpoints. This also helps them to develop advanced writing, presentation and research skills.
2. The course further enables them to comprehend a larger view of the world around us by analysing the existing social and political structures and their links with the economic processes.

Course Learning Outcomes:

- To develop critical thinking by exposing them to elements of economic thought, juxtaposing ideas and theoretical structures based largely on original texts and journal articles.
- It exposes the social science dimension of economics to the students.
- Provides them skills to think and analyse in an interdisciplinary manner.
- Enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies.
- It prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Baran, P	The political economy of growth	Pelican	1973	9780140214659	589

Habib, I	Capitalism in history	Social Scientist	1995	-	23, 15-31
Schumpeter, J	Capitalism, socialism and democracy	Routledge	1976	0415107628	431

Contemporary Economic Issues-I

L	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course content and syllabus

Contents	Lecture hours
Unit 1: Preliminary Concepts	9
<ul style="list-style-type: none"> Fiscal policy, areas of government spending in India Capital and revenue expenditure, plan and non-plan expenditures Deficits (fiscal, primary, revenue), impact of fiscal deficits on the economy Capital receipts, revenue receipts, tax and non-tax revenue, direct and indirect taxes, need for rationalisation of tax structure, Goods and Services Tax (GST) 	
Unit 2 : Union Budget and Taxation	9
<ul style="list-style-type: none"> Need for the budget, understanding the process of budget making in India Analysis of fiscal and revenue deficits Analysis of sources of revenue and expected growth in revenue, Tax simplification Improvement in administration 	
Unit 3 : Analysis of Union Budget	9

<ul style="list-style-type: none"> • Analysis of expenditure pattern and expected growth in expenditure • Actual, revised and budget estimates • Zero-base budgeting • Gender budgeting • Fiscal devolution and centre-state financial relations • Thrust areas of budget • Sectors that have received higher/lower shares of expenditure • The reasons and consequences thereof • Steps proposed to ensure effective spending. 	
Unit 4 : Schemes and Policies	9
<ul style="list-style-type: none"> • Ease of Doing Business • Aatamnirbhar Bharat Abhiyan • Schemes related with Agriculture and Rural Development • Schemes related with Housing and Urban Development • Schemes related with Technology, Education and Skill Development • Schemes related with Employment and Poverty Alleviation • GST ANALYSIS • How GST has Affected Small Business 	

List of Professional Skill Development Activities (PSDA):

1. Able to understand government policies and will in general be informed participants in economic decision making and write a Term assignment about the recent State/Central Budget.

Course Learning Outcomes:

- By the end of the course student will be able to critically assess current economic issues that India facing.
- Students will have the capability understand and critically assess the government policies to address the economic issues and able to write a term paper on any one of the economic issues.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Chakraborty, P	Intergovernmental fiscal transfers in India: Emerging trends and realities. In P. Patnaik (ed.): Macroeconomics	Oxford University Press	2015	9780199458950	456
Kapila, U	Fiscal and budgetary developments in Indian economy since independence	Academic Foundation	2016	9789332703742	819
Reddy, Y	Continuity, change and the way forward: The fourteenth finance commission.	Economic and Political Weekly	2015	0012-9976(ISSN)	27- 36

BA (Economics) Honours- 4 years with Research (6th semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
1		Indian Economy-II	Core	6	0	0	6
2		Economics of Growth and Development-II	Core	6	0	0	6
3		Behavioral Economics	Allied	6	0	0	6
4		International Trade and Trading Systems	Allied	6	0	0	6
5		Contemporary Economic Issues-II	Employability & Skill Enhancement Course	2	0	0	2
		Total Credits		26			

Indian Economy-II

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture hours
Unit 1: Macroeconomic policies and their impact	28
<ul style="list-style-type: none"> • Macro economic policies: Meaning, Scope, Objectives, Formulation • Need for and Advent for macroeconomic policies • Instruments and Transmission Mechanism of Monetary Policy • Limitations and Effectiveness of Monetary Policy • Recent Monetary Policy of India • Fiscal Policy: kinds, instruments, target variables • Fiscal Policy and Macroeconomic Goals 	

<ul style="list-style-type: none"> • Crowding Out/ In of Fiscal Policy, Limitations • Recent Fiscal Policy of India • Impact on Employment, Output and Income 	
Unit 2 : Policies and performance in agriculture	26
<ul style="list-style-type: none"> • Agriculture and its Development in India: Features of Indian Agriculture. • New Agricultural Strategy in India (Green Revolution). • Economic Liberalization and Indian Agriculture. • Agriculture during post Green revolution 	
Unit 3 : Policies and performance in industry and services	28
<ul style="list-style-type: none"> • Industry and Public sector in India: Phases of Industrial Growth in India, • Appraisal of the Industrial Policy resolution of 1956, 1980 and 1991. • Performance of Public sector Undertakings in India and its Evaluation. • Privatization – Nature and Extent in India. • Service Sector in India: Service Sector Growth-Pattern and Future Prospects. • Sustainability of Services Led Growth in India. • Need for Infrastructure and Government strategy on Infrastructure Development in India. • Small scale industries and MSMEs in India 	
Unit 4 : The state of financial sector in India	26
<ul style="list-style-type: none"> • Financial Sector and its Development in India: Structure of the Financial System in India. • Nationalization of Banks – Causes and Evaluation of Performance. • Banking Sector Reforms since 1991. Capital Market – Growth, Problems and Reforms since 1991. • Role of Securities Exchange Board of India (SEBI). • Financial Scams and the role of SEBI in checking Financial scams • Implications of financial sector reforms 	

List of Professional Skill Development Activities (PSDA):

1. Understand the economic development during post reform period and write a Term assignment.

2. Write a seminar paper on impact of reforms on different sectors of Indian economy.

Course Learning Outcomes: At the end of the course, a student will be able to understand how the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.

- Clear understanding of the Indian Economy during post reform period
- Analyze the impact of reforms on various sectors of the economy
- Critically assess the reform measures and its impact on growth, employment and structural transformation of the economy.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Bardhan, P	Awakening giants, feet of clay: Assessing the economic rise of China and India	Princeton University Press	2012	9780198068327	526
Dreze, J., Sen	India: An uncertain glory	Allen Lane	2013	9780141992624	480
Bhagwati, J., Panagariya	India's tryst with destiny	Collins Business	2012	9789351367765	340

Economics of Growth and Development-II

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture hours
Unit 1: Demography and Development	28
<ul style="list-style-type: none"> • Demographic concepts; birth and death rates, age structure, fertility and mortality; • Demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; • Connections between income, mortality, fertility choices • Human capital accumulation; • Migration 	
Unit 2 : Land, Labour and Credit Markets	26
<ul style="list-style-type: none"> • The distribution of land ownership • Land reform and its effects on productivity • Contractual relationships between tenants and landlords • Land acquisition • Nutrition and labor productivity • Informational problems and credit contracts; • Microfinance; • Inter- linkages between rural factor markets 	
Unit 3: Environment and Sustainable Development	26
<ul style="list-style-type: none"> • Defining sustainability for renewable resources; • A brief history of environmental change; • Common-pool resources; environmental externalities and state regulation of the environment; • Economic activity and climate change • Sustainable Development Goals 	
Unit 4 Globalisation	28

<ul style="list-style-type: none"> • Globalisation in historical perspective; • The economics and politics of multilateral agreements • Trade, production patterns and world inequality • Financial instability in a globalised world 	
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List of Professional Skill Development Activities (PSDA):

1. Capable to understand India’s various development issues from a comparative perspective and creatively articulate them in the form of newspaper article or publish in other electronic media.
2. Critically analyse the globalisation and development process and present a seminar paper

Course Learning Outcomes: This course teaches the student various aspects of the Indian economy, as well as important themes relating to the environment and sustainable development. It also introduces them to some issues of globalisation.

- Clear understanding of the relation between population and process of development
- Analyze the particular problems of underdeveloped countries.
- Critically appraise the role of globalization and process of development

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Sen, A	Development as freedom	Oxford University Press	2000	9780385720274	384
Deaton, A	The great escape: Health, wealth and the origins of inequality	Princeton University Press	2013	9780385720274	376
Banerjee,	Understanding poverty	Oxford University	2006	9780195305203	496

A., Benabou, R., Mookerjee, D. (eds.)		Press.			
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Behavioral Economics

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture Hours
Unit I: Introduction to Behavioural Economics	26
<ul style="list-style-type: none"> • Nature of Behavioural Economics • Methodological approach • Theory and evidence • Origins of behavioural economics-Neo classical and behavioural approaches to studying economics • Relationship with other disciplines 	
Unit II: Foundations of Behavioural Economics	26

<ul style="list-style-type: none"> • Application of Behavioural economics: Case studies on loss aversion, Money illusion, Altruism • Values, Preferences and Choices: The standard model- Axioms, assumptions and definitions • The neuroscientific basis of utility • Case studies on Abstention and Drug addiction • Beliefs, Heuristics and Biases: The standard model- probability estimation- self evaluation bias- causes of irrationality • Case studies on Fakes and Honesty 	
Unit III: Decision Making under risk and uncertainty	28
<ul style="list-style-type: none"> • Prospect theory • Reference points • Loss Aversion • Shape of utility function • Decision weighting • Case studies on Endowment Effect and Loss Aversion 	
Unit IV: Behavioural Game Theory	28
<ul style="list-style-type: none"> • Nature of behavioral game theory • Mixed strategies- Bargaining- Iterated games- Signaling- Learning • Case studies on Market entry in Monopoly and Impasses in bargaining and self-serving bias. 	

List of PSDA Activities:

1. Every student to present a case study with respect to bounded rationality
2. Each student to submit a report on instances of bounded rationality from their personal experiences.

Course Learning Outcomes: By the end of the course student will be able to

Understand the methodological approach in behavioural economics and contrast it with standard economic models.

Understand the psychological dimensions such as cognition, moral motivations and social interactions in explaining economic behaviours and outcomes

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Edward Cartwright	Behavioural Economics	Routledge	2011		
Erik Angner	A Course in Behavioral Economics	Palgrave Macmillan	2012		
Dan Ariely	Predictably Irrational: The Hidden Forces that Shape Our Decisions	Harper Collins	2009		
Richard Thaler and Carl Sunstein	Nudge: Improving Decisions about Health, Wealth and Happiness	Penguin UK	2009		
Kahneman, Daniel and Amos Tversky	Choices, Values and Frames	Cambridge University Press	2000		
Camerer, Colin, Loewenstein,	Advances in Behavioral Economics	Russell Sage Foundation and Princeton	2003		

George, and Rabin, Matthew (eds.),		University Press			
Colin Camerer	Behavioral game theory: experiments in strategic interaction	Princeton University Press	2003		

International Trade and Trading Systems

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course content and syllabus

	Lecture Hours
Unit I: Introduction to International Trade	26
<ul style="list-style-type: none"> • What is international economics about? • An overview of world trade. • Stylized facts about international trade • Important institutions in Global Trading system: GATT, WTO • Trade and Economic Development 	
Unit II: Classical Neoclassical Trade Theories	26
<ul style="list-style-type: none"> • Adam Smith's Absolute Advantage Trade theory • Ricardian trade theory (notion of comparative advantage and gains from trade due to specialisation); • an introduction to the distributional effects of trade; the specific factor model; 	

<ul style="list-style-type: none"> • Heckscher-Ohlin theory: Rybczinski and Stolper-Samuelson theorems; • Heckscher-Ohlin theorem; • Factor price equalisation 	
Unit III: New trade theories	28
<ul style="list-style-type: none"> • External economies of scale, internal economies of scale; • Krugman model; firm heterogeneity; • International movement of factors; • Introduction to the theory of multinational firms 	
Unit IV: Trade policy	28
<ul style="list-style-type: none"> • Instruments of trade policy; tariffs, quotas, export subsidies, voluntary export restraints. • The economics of trade policy; political economy of trade policy; controversies in trade policy. • Economics Integration: Multilaterism, Custom Unions, Free Trade Area 	

List of PSDA Activities:

1. Every student to present an analysis absolute and comparative advantage trade principles..
2. Each student to submit an in-depth analysis of different instruments of trade policy.

Course Learning Outcomes: By the end of the course student will be able to critically assess current and future metrics, research technologies, and research data output related to the subject.

- Establish their understanding of the economic concepts of trade theory
- Demonstrate and compare the economic welfare effects of free trade and protection
- Analyze the usefulness and problems related to topics in international trade
- Project their critical understanding of trade policies.

Text / Reference Books:

Author	Title	Publisher	Year of	ISBN	Pages
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			Publication		
Paul Krugman	International Economics: Theory and Policy	Pearson Education	2017	978- 9332586550	792
D.L. Salvatore	International Economics	Prentice Hall	2012	978- 1118177938	720
Krugman, P., Obstfeld, M., Melitz, M	International Economics - Theory and Policy	Pearson Education	2018		785

Contemporary Economic Issues-II

L	T	P/S	SW/FW	Total Credit Units
2	0	0	0	2

Course content and syllabus

Unit 1: Economic Survey- Some Aspects
<ul style="list-style-type: none"> • State of the Economy • India's Medium term growth outlook • Fiscal Development • Monetary Management and Financial Intermediation • Prices and Inflation
Unit 2 : Economic Survey- Infrastructure and Environment
Social Infrastructure and Employment Physical and Digital Infrastructure Climate Change and Environment

Unit 3 : Policy Initiatives
<ul style="list-style-type: none"> • Agriculture and Food Management • Industry • Services
Unit 4 : External Sector and Stock market
<ul style="list-style-type: none"> • FDI Status and Issues in India • Permanent Residency Status for Foreign Investors • WTO Reforms and India's Stance • Reforms in IMF Quota • Indian Stock market and fluctuations in the Stock market in post Covid period.

List of Professional Skill Development Activities (PSDA):

1. Able to understand government policies and will in general be informed participants in economic decision making and write a Term assignment about the recent State/Central Budget.

Course Learning Outcomes:

- By the end of the course Students will be able to understand government fiscal policies and will be able to participate in the discussion on Economic survey and Union and State Budgets.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Chakraborty, P	Intergovernmental fiscal transfers in India: Emerging	Oxford University Press	2015	9780199458950	456

	trends and realities. In P. Patnaik (ed.): Macroeconomics				
Kapila, U	Fiscal and budgetary developments in Indian economy since independence	Academic Foundation	2016	9789332703742	819
Reddy, Y	Continuity, change and the way forward: The fourteenth finance commission.	Economic and Political Weekly	2015	0012-9976(ISSN)	27- 36
Economic Survey for the last 5 years					
Centre for Budget and Governance Accountability. Recent reports					

BA (Economics) Honours- 4 years with Research (7th semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
1		Data Mining in R	CC	6	0	0	6
2		Economics of Health and Education	DSE	6	0	0	6
3		Global Political Economy	DSE	6	0	0	6
4		Research Project	NTCC	6	0	0	6
		Total Credits		26			

Introduction to Data Mining in R

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture hours
Unit 1 Introduction to R	28
<ul style="list-style-type: none"> Installation of R- Getting Started with R interface- Entering Input-Evaluation- R objects- Numbers- Attributes- Creating Vectors-Mixing 	

Objects- Explicit Coercion- Matrices- Lists- Missing Values-Data Frames- Names- Reading and Writing Data into R- Introduction to read.table()- Memory requirements for R objects- Storing Binary and Textual Data -Subsetting R Objects- Vectorised Operations- Date and Time	
Unit 2 : Managing Data Frames, Control Structures, Functions and Debugging	26
<ul style="list-style-type: none"> • Data Frames- dplyr package- dplyr grammar- Installing dplyr-functions –select-filter-arrange-rename-mutate-group • If-else- for loops-Nested for loops-while loops- repeat Loops-next break- Functions in R- lapply-sapply-split-tapply-mapply-Debugging Tools in R-Using Traceback()- Using debug()-Using recover() 	
Unit 3 : Introduction to Predictive Modelling and Process of Predictive Modelling	28
<ul style="list-style-type: none"> • Understanding Data- Core Components of a Model – Types of Models- Supervised- Unsupervised- Semi supervised and Reinforcement Learning Models – Parametric and Non Parametric Models- Regression and Classification Models 	
Unit 4 : Predictions Using Linear Regression	26
<ul style="list-style-type: none"> • Introduction to Linear Regression- Assumptions- Estimating a Simple Linear Regression- Multiple Linear Regression (MLR)- Assessing Linear Models- Residual Analysis- Significance Tests- Performance Metrics for Linear Regression- Problems with MLR- Multicollinearity- Outliers 	

Course Learning Outcomes: At the end of the course, a student should learn the role of health and education in human development. Expand R by installing R packages

- Explore and understand how to use the R documentation
- Read Structured Data into R from various sources
- Understand basic linear functions in models

- d. Understand how to link data, statistical methods, and actionable questions

Text / Reference Books:

1. Forte, R. M. (2015). **Mastering Predictive Analytics with R**. Packt Publishing Ltd.
2. Peng, R. D (2016). **R Programming for Data Science**. <http://leanpub.com/rprogramming>

Economics of Health and Education

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Course Contents/syllabus:

	Lecture hours
Unit 1 Role of health and education in human development	28
<ul style="list-style-type: none"> • Importance of Poverty Alleviation • Concept and Significance of Human Capital Formation • Health and Education Outcomes • Relationship of Health and Education with Macroeconomic Performance 	
Unit 2 : Topics in health economic theory	26
<ul style="list-style-type: none"> • Demand for health, • Grossman’s model of demand for health, • Information asymmetry in healthcare demand, and the health insurance market, • Physician induced demand, • Adverse selection and moral hazard in health insurance 	
Unit 3 : Economic evaluation of health care	28
<ul style="list-style-type: none"> • Cost effectiveness and cost-benefit analysis • Valuing life • Public policy in the health sector; • Externalities in health and health care; 	

<ul style="list-style-type: none"> • Rationale for government intervention in the health sector 	
Unit 4 : Education:	26
<ul style="list-style-type: none"> • Investment in human capital; • Rate of return to education: private and social • Quality of education; • Signalling of human capital; • Theories of discrimination; • Gender and caste discrimination in India • Education sector in India: An overview 	

Course Learning Outcomes: At the end of the course, a student should learn the role of health and education in human development.

- They will be able to apply economic theory to understand the demand for health care, market failure in health insurance, economic evaluation of health care programmes and the role of public policy in the healthcare industry.
- They will also learn to analyse the returns to education, its role in labor market signalling, and the progress of schooling in India.
- They will also be exposed to the theories of discrimination.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Bhattacharya, J., Hyde, T., Tu, P	Health Economics	Palgrave Macmillan	2014	9781137029966	624
Ehrenberg, R., Smith	Modern labor economics: Theory and public policy 11th ed	Addison Wesley	2012	9780133462784	650

World Health Organisation	The economics of the social determinants of health and health inequalities: A resource book	World Health Organisation	2013	9789241548625	124
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L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

Global Political Economy
Course content and syllabus

Content	Lecture hours
Unit 1: Introduction and overview	28
<ul style="list-style-type: none"> Perspectives on political economy of globalisation with a historical overview 	
Unit 2 : Global Capitalism	27
<ul style="list-style-type: none"> Changing dynamics of capitalist production, Organisational forms and labour processes: Fordist and post-Fordist production regimes Multinational corporations – evolution, Structural form and dynamics Global value chains and production networks The changing nature of employment, job security and labour rights in a globalised economy 	
Unit 3 : The political economy of global trade	25
<ul style="list-style-type: none"> Structure Institutions of the international trade regime 	
Unit 4 : Global Finance	28

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|---|--|
| <ul style="list-style-type: none"> • Financialisation of the global economy – trends, instruments, features and consequences | |
|---|--|

List of Professional Skill Development Activities (PSDA):

1. Students learn to assimilate from a diverse range of opinions and crystallize their own thought processes and standpoints. This also helps them to develop advanced writing, presentation and research skills.
2. Students from all backgrounds will be able to better prepared to face the professional world and can use the knowledge base of this course for facing the challenges of group discussions and general interviews for corporate or civil service jobs.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Bhaduri, A.	Nationalism and economic policy in the era of globalization. In D. Nayyar (ed.): Governing globalization: Issues and institutions	Oxford University Press.	2002	978-0199254033	408
Harvey, D	A brief history of neoliberalism. Introduction	Oxford University Press.	2005	978-0199283279	256
Rodrik, D	The globalization paradox: Why	Oxford University	2011	0393071618	369

	global markets, states and democracy can't coexist.	Press			
Thun, E	The globalization of production In J. Ravenhill (ed.): Global political economy	Oxford University Press	2011	978-0199570812	560
Winham, G.	The evolution of the global trade regime. In J. Ravenhill (ed.): Global political economy.	Oxford University Press	2011	978-0199570812	560

Research Project- NTCC

BA (Economics) Honours- 4 years with Research (8th semester)

S.No	Course Code	Course Title	Course Type	Credits			Credit Units
				L	T	P	
25		Schools of Economic Thought	CC	6	0	0	6
26		Economics Lab- Modelling	SEC	6	0	0	6
27		Law and Economics	DSE	6	0	0	6
28		Dissertation	NTCC	6	0	0	6
		Total Credits		26			

Schools of Economic Thought
Course content and syllabus

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

	Lecture hours
Unit 1: Introduction and overview	28
<ul style="list-style-type: none"> • Different approach to economics • A discussion on methodology in Economics • Greek philosophy • Ancient Indian economic thought-Arthasaastra • Mercantilism • Physiocracy 	
Unit 2 : Classical Thought	26
<ul style="list-style-type: none"> • Adam Smith • David Ricardo • Thomas Malthus • Jeremy Bentham • Jean-Baptiste Say • John Stuart Mill. 	

Unit 3 : The thought of collectiveness (Socialism)	26
<ul style="list-style-type: none"> • Origin of socialism • Modern socialism • Marxism 	
Unit 4 : Marginalism, Keynesian and post Keynesian schools of thought	28
<ul style="list-style-type: none"> • Jevons' logical calculus • Menger and the Austrian school • Bentham's utilitarianism • Walras' articulation of the economic sciences • Marshall and the Neo-Classical school • Pareto's welfare economics • Keynes' heresies • Hayek's critique • Schumpeter's gale of creative destruction • Friedman's counter-revolution • Approaches to the major economic issues of the twenty-first century • New Keynesians • Neo-Marxists • Experimental economists 	

List of Professional Skill Development Activities (PSDA):

1. Students learn to assimilate from a diverse schools of economic thoughts crystallize their own thought processes and standpoints. This also helps them to develop advanced writing, presentation and research skills.
2. Students from all backgrounds will be able to better prepared to face the professional world and can use the knowledge base of this course for facing the challenges of group discussions and present seminar on differentstreams of economic thought.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
Smith, A.,	The Causes and Nature of the Wealth of Nations	RHUS, Annotated Edition	2003	978-9387779464	1144
Sen, A	Development as Freedom	Oxford University Press	2000	9780195655261	366
Gide, C., & Rist, C.	Early Histories of Economic Thought, 1824-1914: History of economic doctrines (Vol. 8)	Taylor & Francis US	2000	978-1295710386	702
Schumpeter, J. A	History of Economic Analysis	Routledge.	2006	978-0195105599	1260
Screpanti, E., & Zamagni, S.	An Outline of the History of Economic Thought	Oxford University Press	2005	978-0199279142	584

Economics Lab- Modelling
Course content and syllabus

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

	Lecture Hours
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Unit I: Practical Aspects of Econometric Modelling	26
<ul style="list-style-type: none"> • Introductory Econometrics: Introduction to Nature, Role and Significance of Econometrics, • Notes of Caution while Developing and Using Econometric Models. • Classical Econometrics: Bi-variate and Multivariate Regression Analysis Using STATA/Eviews/SPSS/ /R • Interpretation of coefficients, test of hypotheses and restrictions, goodness of fit statistics. • Testing the Existence and Solving the Problems of Non-normality, Heteroscedasticity, Autocorrelation and Multicollinearity using STATA/Eviews/SPSS/R. 	
Unit II: Executing Regression in Softwares	26
<ul style="list-style-type: none"> • Econometrics of Categorical Variables: Role of Categorical Variables in Econometric Modeling. • Creating Categorical/Polychotomous Variables in STATA/Eviews/SPSS/ /R. • Estimating and interpreting the models with categorical variables as independent variables in STATA/Eviews/SPSS/ /R. • Categorical Dependent Variable Models: Models with Dichotomous Response; Logit, Probit and Tobit estimation using STATA/Eviews/SPSS/ R. • Models with Polychotomous Response; Multinomial Logit/Probit and Ordered Response Models Estimation using • STATA/Eviews/SPSS/ /R. • Interpretation of Coefficients and Marginal Effects. • Test of Significance and Goodness of Fit Statistics for Categorical Response Variable Models in STATA/Eviews/SPSS/ /R 	
Unit III: Simultaneous Equation Modelling and Time Series Analysis	28

<ul style="list-style-type: none"> • Simultaneous Equation Models: Estimating Simultaneous Equation Models using STATA/Eviews/SPSS/R. • Basic Discussion on Identification Problem; Rank and Order Conditions for Identification. • Estimating the Simultaneous equations models using Indirect Least Squares (ILS), Two Stage Least Squares (2SLS), Full Information Maximum Likelihood (FIML) and Seemingly Unrelated Regression (SUR) methods in STATA/Eviews/SPSS/R. • Time Series Analysis: Using Distributed Lag, Autoregressive, and Moving Average terms in STATA/Eviews/SPSS/R. • Testing and Interpreting the Presence of Unit-root, Seasonality and Structural Breaks in Time Series Variables using STATA/Eviews/SPSS/ R. • Estimating and Interpreting Co-integration, VAR/VECM and Impulse Response models/coefficients using STATA/Eviews/SPSS/R 	
Unit IV: Panel Data Analysis	28
<ul style="list-style-type: none"> • Testing Significance of Cross-section and Time-specific Effects in STATA/Eviews/SPSS/R. • Estimation and Interpretation of the Coefficients of Fixed and Random Effect Models in STATA/Eviews/SPSS/R. • Hausman Specification Test and Model Selection criteria in STATA/Eviews/SPSS /R. • Random Coefficient models estimation using STATA/Eviews/SPSS/ R. • An Introduction to Panel Data Unit-root and Cointegration testing using STATA/Eviews/SPSS/ R.. 	

Course Learning Outcomes: By the end of the course student will be able to

- Initiate effective use of econometrics for economic problems through regression analysis.
- Have theoretical and practical understanding of time series data
- Have theoretical and practical understanding of panel data

- Develop analytical abilities among students for data handling and econometric modelling.

Text / Reference Books:

Author	Title	Publisher	Year of Publication	ISBN	Pages
A.H. Studenmund	Using Econometrics: A Practical Guide	Pearson India Education Services Pvt. Ltd	2010	978-0131367739	648
D. Gujarati	Basic Econometrics	New York: McGraw Hill	2015	978-0070597938	1002
G.M.K. Madnani	Introduction to Econometrics: Principles and Applications	Oxford and IBH Publishing Co. Pvt Ltd	2012	9788120417199	635
G. Maddala	Introduction to Econometrics	New York: MacMillan	2017	9780023745454	464

Law and Economics
Course content and syllabus

L	T	P/S	SW/FW	Total Credit Units
6	0	0	0	6

	Lecture hours
Unit 1: Introduction and overview	28
<ul style="list-style-type: none"> • Law and economics: An introduction 	

<ul style="list-style-type: none"> • Efficiency criteria in welfare economics • Coase theorem • Prisoners' dilemma. • Role of contracts for the functioning of markets 	
Unit 2 : Law vs Market	26
<ul style="list-style-type: none"> • Efficient contracts • Damages measures and their efficiency properties • Property rights and their role in resource allocation • Legal remedies for breach of property rights and their economic effects • Liability for accidents and harms • Product liability • Efficiency of liability rules • Efficiency-compensation trade-off. • Litigation - its causes and consequences • Benefits of legal certainty 	
Unit 3 : Law and Public Policy	26

<ul style="list-style-type: none"> • Law and public policy. • Land and property • Market and non-market mechanisms for allocation and transfer of land • Land markets • Eminent domain – the land acquisition law • Land-pooling. • Contracts for provisions of public goods: procurement contracts • Government provisions vs. public-private partnerships • Cost-quality trade-off. • Intellectual Property Rights (IPRs): patents, copyright and trademarks. • Cost and benefits of private IPRs • Individual rights vs. common good 	
Unit 4 : Empirical law and economics	28
<ul style="list-style-type: none"> • Empirical work on policing and crime • Judges' decision • Discrimination • Corporate Governance • Securities Litigation • Any other relevant current empirical research on law and economics 	

List of Professional Skill Development Activities (PSDA):

1. Students will come to recognise the law as an important organising force that influences the actions of private citizens as well as government agencies and write a term paper on empirical law and economics
2. Participating this course students will be able to make critical thinking and an inter-disciplinary approach towards the law, economics, and policymaking and write a seminar paper about one relevant topic in this domain.

Text / Reference Books

Author	Title	Publisher	Year of Publication	ISBN	Pages
Cooter, R., Ulen, T	Law and economics	Pearson.	2013	978-0132540650	576
Miceli, T	The theory of eminent domain: Private property, public use, 2nd ed	Cambridge University Press	2012	978-0521182973	216

Dissertation- NTCC