Department of Economics

Master of Arts
Economics

Central University of Haryana
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1. Background:

Considering the curricular reforms as instrumental for desired learning outcomes, all the academic departments of Central University of Haryana made a rigorous attempt to revise the curriculum of undergraduate and postgraduate programmes in alignment with National Education Policy-2020 and UGC Quality Mandate for Higher Education Institutions-2021. The process of revising the curriculum could be prompted with the adoption of "Comprehensive Roadmap for Implementation of NEP-2020" in 32nd meeting of the Academic Council of the University held on April 23, 2021. The Roadmap identified the key features of the Policy and elucidated the Action Plan with well-defined responsibilities and indicative timeline for major academic reforms.

The process of revamping the curriculum started with the series of webinars and discussions conducted by the University to orient the teachers about the key features of the Policy, enabling them to revise the curriculum in sync with the Policy. Proper orientation of the faculty about the vision and provisions of NEP-2020 made it easier for them to appreciate and incorporate the vital aspects of the Policy in the revised curriculum focused on 'creating holistic, thoughtful, creative and well-rounded individuals equipped with the key 21st century skills' for the 'development of an enlightened, socially conscious, knowledgeable, and skilled nation'.

With NEP-2020 in background, the revised curricula articulate the spirit of the policy by emphasizing upon— integrated approach to learning; innovative pedagogies and assessment strategies; multidisciplinary and cross-disciplinary education; creative and critical thinking; ethical and Constitutional values through value-based courses; 21st century capabilities across the range of disciplines through life skills, entrepreneurial and professional skills; community and constructive public engagement; social, moral and environmental awareness; Organic Living and Global Citizenship Education (GCED); holistic, inquiry-based, discovery-based, discussion-based, and analysis-based learning; exposure to Indian knowledge system, cultural traditions and classical literature through relevant courses offering 'Knowledge of India'; fine blend of modern pedagogies with indigenous and traditional ways of learning; flexibility in course choices; student-centric participatory learning; imaginative and flexible curricular structures to enable creative combination of disciplines for study; offering multiple entry and exit points initially in undergraduate programmes; alignment of Vocational courses with the International Standard Classification of Occupations maintained by the International Labour Organization; breaking the silos of disciplines; integration of extra-curricular and curricular aspects; exploring internships with local industry, businesses, artists and crafts persons; closer collaborations between industry and higher education institutions for technical , vocational and science programmes; and

formative assessment tools to be aligned with the learning outcomes, capabilities, and dispositions as specified for each course. In case of UG programmes in Engineering and Vocational Studies, it was decided that the departments shall incorporate pertinent NEP recommendations while complying with AICTE, NBA, NSQF, International Standard Classification of Occupations, Sector Skill Council and other relevant agencies/sources. The University has also developed consensus on adoption of Blended Learning with 40% component of online teaching and 60% face to face classes for each programme.

The revised curricula of various programmes could be devised with concerted efforts of the faculty, Heads of the Departments and Deans of Schools of Study. The draft prepared by each department was discussed in series of discussion sessions conducted at Department, School and the University level. The leadership of the University has been a driving force behind the entire exercise of developing the uniform template and structure for the revised curriculum. The Vice Chancellor of the University conducted series of meetings with Heads and Deans to deliberate upon the vital parameters of the revised curriculum to formulate a uniform template featuring Background, Programme Outcomes, Programme Specific Outcomes, Postgraduate Attributes, Structure of Masters Course, Learning Outcome Index, Semester-wise Courses and Credit Distribution, Course-level Learning Outcomes, Teaching-Learning Process, Blended Learning, Assessment and Evaluation, Keywords, References and Appendices. The experts of various Boards of Studies and School Boards contributed to a large extent in giving the final shape to the revised curriculum of each programme.

To ensure the implementation of curricular reforms envisioned in NEP-2020, the University has decided to implement various provisions in a phased manner. Accordingly, the curriculum may be reviewed annually.

2. About the Department:

The Department of Economics under the School of Business and Management Studies was established in the year 2009 with inception of the University, is recognized as a centre of excellence in the field of higher education in economics. The department offers an active and stimulating research environment for postgraduate and research students. The department is manpowered with faculty members who are charged with multi-disciplinary background required for enabling the students to acquire skills in various branches of economics. Currently the department has four regular faculty members. The department is also enriched by the expertise lectures offered by distinguished professors from various nationally reputed institutions. At present, the department offers two academic programmes i.e., M.A in Economics and Ph.D in Economics.

The faculty members of the department are able to publish their research work in high quality journals of national and international repute and also awarded with research funding by external agencies. The faculty of the department also participates in national/international seminars, workshops, conferences and faculty development programmes to update their knowledge.

The most of PG students and M.Phil/Ph.D degree holders have secured good and covetable placement in public and private sector establishments. The Department of Economics is proactively engaging multiple and multidimensional research projects that cover various socio-economic issues. The Department of Economics, since its inception has been organizing national seminars, discussions, and symposiums with the active participation of faculty and students involving academicians and experts in the concerned areas. Theses academic discussions and discourses will enable the department to nurture and emerge as the most reputed post graduate study and research centre in India.

3. Nature and Extent of MA in Economics:

Degree in economics is one of the most desired courses in the contemporary world. It has applications in multiple areas of everyday life. MA Economics is an advanced level degree that deals with economic concepts and principles in a much in-depth manner. The subjects/courses taught across the programme equip students with the knowledge to make well-informed decisions in their careers later. This course is uniquely designed to develop the next generation of Economists with the theoretical knowledge, and technical skills to perform high quality analysis. The M.A. Economics programme of the department comprehensively covers the core and advanced areas of Microeconomics, Macroeconomics and Econometrics. Acquiring excellent technical training in these areas, one shall also learn how to bring your analytical strengths to bear on applied issues. This programme includes training in research methodology that will give you the skills you need to carry out independent research in economics and complete your dissertation. This programme trains students for entry to Industry, Business houses; for working with Banking, Consultancy, interest groups, non-profit organizations (NGOs) and policy think tanks. This programme also ignites their dreams for positions in local, state, and federal legislative and bureaucratic offices nationwide. As the problems experienced by economies in the real world are now much more interconnected, complex and uncertain than before, so this programme emphasis on qualitative and quantitative analytical skills to solve the same.

4. Programme Outcome:

1. To develop ability to amalgamate economic theory and practices of broad development aspects of international and national economic policies and analysis of different sectors.

2. Develop the understanding of students in quantitative tools to handle large economic data and carry out data analysis of real life economic issues.

3. To teach a wide range of knowledge in current economic issues and gaining analytical skills, including problem-solving, project work and presentation so as enable students to take prominent roles in a wide spectrum of employment and research.

5. Post Graduate Attributes in Economics:

The postgraduate attributes reflect the particular quality and feature or characteristics of an individual, including the knowledge, skills, attitudes and values that are expected to be acquired by a postgraduate through studies at the higher education institution (HEI) such as a college or university. Such attributes include capabilities that help strengthen one's abilities for widening current knowledge base and skills, gaining new knowledge and skills, undertaking future studies and performing well in a chosen career and playing a constructive role as responsible citizen of the country. The attributes define the characteristics of a student's university degree programme(s), and describe a set of characteristics/competencies that are designed to be transferable beyond the particular disciplinary area and programme contexts in which they have been developed. Such attributes are fostered through meaningful learning experiences made available through the curriculum, the total college/university experiences and a process of critical and reflective thinking. The learning outcomes-based curriculum framework is based on the premise that every student is unique. Each student has his/her own characteristics in terms of previous learning levels and experiences, life experiences, learning styles and approaches to future career-related actions. The quality, depth and breadth of the learning experiences made available to the students while at the college/University help develop their characteristic attributes. The postgraduate attributes reflect both disciplinary knowledge and understanding and generic/global skills and competencies that all students in different academic fields of study should acquire/attain and demonstrate. Some of the desirable attributes which a postgraduate of economics should demonstrate will include the following:

- Receptive to alternate ideas through a review of the economic literature and through class participation and assessment;
- Ethical in their approach to research and work practices;

- Advanced in their use, critical evaluation and testing of economics models and in forecasting and assessing business and government policy options;
- Adept in statistical reasoning through completion of core econometrics subjects in the degree;
- Skilled in undertaking independent research in economics and statistical analysis;
- Advanced in problem solving through their understanding of macroeconomic and microeconomic issues and able to apply economic theory and statistical techniques to economic policy and business decision making;
- Critically analytical through the evaluation of ideas, views and evidence contained in the economic and econometric research literatures;
- Skilled in working effectively with computer software for the analysis of data;
- Adept at retrieval, summary and interpretation of economic and econometric information through class exercises and assessment;
- Able to apply and synthesize economic and econometric ideas, theory, models and evidence to domestic and international economic issues;
- Scientific Reasoning using Quantitative/Qualitative Data: Critically analyze the cause and effect relationships, interpret and draw conclusions from using the both types of data.
- Independent and effective in communication of ideas, expressive in his ideas and explain the concept in clear and concise manner:

6. Programme Specific Outcomes (PSO) for M.A. Economics:

PSO1: To equip the students with a good understanding of India's economic problems along with the development challenges faced by India.

PSO2: To make students familiar with economic theories and their relevance, quantitative techniques and applied research in a wide variety of fields within economics.

PSO3: To familiarise the students with suitable alternative methods of knowledge on the basis of the heterogeneity of societies

PSO4: To develop right skills in students catering to the needs of the industry and policy makers

PSO5: To make the students capable of addressing and solving the issues in the society and the economy by contextualizing the knowledge they have acquired and finally dissemination of the same.

7. Minimum Credit Requirement:

For a two-year Master's Degree programme in Economics, the credit requirements for the Master's degree shall be 100 credits (±4 Credits), including a minimum of 18 credits from elective courses (of which at least 8 credits shall be from elective courses offered by other Departments).

8. Learning Outcome Index

Learning outcome index of core courses (CC):

PSO	CC-1	CC-2	CC-3	CC-4	CC-5	CC-6	CC-7	CC-8	CC-9	CC-10	CC-11	CC-12	CC-13	CC-14	CC-15	CC-16	CC-17
PSO-1	Y		Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PSO-2		Y	Y		Y	Y	Y	Y		Y	Y	Y		Y		Y	Y
PSO-3	Y		Y			Y		Y	Y			Y	Y	Y	Y	Y	Y
PSO-4	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y		Y			Y
PSO-5	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y	Y		Y	Y	Y

Learning outcome index of elective courses (EC):

PSO	EC-1	EC-2	EC-3	EC-4	EC-5	EC-6	EC-7	GEC-1	GEC-2
PSO-1	Y	Y	Y		Y	Y	Y		Y
PSO-2	Y			Y		Y	Y	Y	Y
PSO-3			Y	Y	Y	Y		Y	Y
PSO-4	Y	Y	Y	Y	Y		Y	Y	

PSO-5	**Y**	**Y**		**Y**	**Y**	**Y**		**Y**	**Y**

9. Credit Distribution for MA in Economics:

Sl.	Nature of Papers	Total No. of Papers	Total Credit
1	Core	17	**74**
2	Elective Courses	05	**12**
3	GEC (General Elective Course)	02	**08**
4	Skill and ability Enhancement Course	02	**10**
	Total		**104**

10. Semester Wise Programme Structure of M.A. Economics

Semester I						
S.No.	**Paper Nomenclature**	**Course Code**	**L**	**T**	**P**	**Credit**
1.	Microeconomics-I	SBMS ECO 01 101 C 3104	3	1	0	4
2.	Macroeconomics - I	SBMS ECO 01 102 C 3104	3	1	0	4
3.	Economic Growth and Development-I	SBMS ECO 01 103 C 3104	3	1	0	4
4.	Statistics-I	SBMS ECO 01 104 C 3104	3	1	1	5
5.	Indian Economy	SBMS ECO 01 105 C 3104	3	1	0	4
6.	General Elective Course (GEC)	***To be taken from other department***				
Semester II						
1.	Microeconomics-II	SBMS ECO 01 201 C 3104	3	1	0	4
2.	Macroeconomics-I – II	SBMS ECO 01 202 C 3104	3	1	0	4
3.	Economic Growth and Development-II	SBMS ECO 01 203 C 3104	3	1	0	4
4.	Statistics-II	SBMS ECO 01 204 C 3104	3	1	1	5
5.	Mathematical Economics-I	SBMS ECO 01 205 C 4105	4	1	0	5
6.	Public Economics-I	SBMS ECO 01 206 C 3104	3	1	0	4
7.	General Elective Course (GEC)	***To be taken from other department***				
Semester III						
1.	International Economics-I	SBMS ECO 01 301 C 3104	3	1	0	4

2.	Econometrics-I	SBMS ECO 01 302 C 3104	3	1	1	5
3.	Mathematical Economics-II	SBMS ECO 01 303 C 4105	4	1	0	5
4.	Public Economics-II	SBMS ECO 01 304 C 3104	3	1	0	4
5.	Economic Insights from India's Indigenous Knowledge Systems	SBMS ECO 01 305 C 2112	1	1	0	2
5.	General Elective Course (GEC)	***To be taken from other department***				
6.	***Any one of the following two courses***		3	1	0	4
	Environmental Economics	SBMS ECO 01 306 E 3104				
	Research Methodology	SBMS ECO 01 307 E 3104				
Semester IV						
1.	International Economics-II	SBMS ECO 01 401 C 3104	3	1	0	4
2.	Econometrics-II	SBMS ECO 01 402 C 3115	3	1	1	5
4	Dissertation	SBMS ECO 01 403 C 0008	0	0	0	8
5	***Any two of the following courses***					
	Health Economics	SBMS ECO 01 404 E 3104	3	1	0	4
	Gender Economics	SBMS ECO 01 405 E 3104	3	1	0	4
	Advanced Econometrics	SBMS ECO 01 406 E 3104	3	1	0	4
	Behavioral Economics	SBMS ECO 01 407 E3104	3	1	0	4

List of Generic Elective Course (GEC) offered by the department to students of other departments

S.No.	Paper Nomenclature	Course Code	L	T	P	Credit
1.	Basic Economics	SBMS ECO 01 101 GE 3104	3	1	0	4
2.	Contemporary Issues of Indian Economy	SBMS ECO 01 102 GE 3104	3	1	0	4

Note: Blended learning mode will be adopted by the department for all course mentioned above. Upto 40 percent of the content of above course shall be taught through online mode and remaining course shall be taught through face to face learning mode.

11. Detailed Semester wise syllabus with course objectives and course outcomes

Semester – I

Master of Arts (Economics)
Semester: I

Course Nomenclature: Microeconomics-I **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 101 C 3104 **Course Nature: Core**

Course Objective:

Microeconomics aims to enrich the students thorough understanding of the principles of economics that apply to the decisions of individuals, both consumers and producers within the larger economic system and the basic form of competitive environment in industry. This course aims to equip the students with theoretical concepts, methodology and process of reasoning involved in analyzing economic behaviour of individuals, firms and market using general, static and partial equilibrium framework**.**

On successful completion of the course, the learners will be able to-

CLO1: Understand the elements of Microeconomic theory.

CLO2: Analyze the consumer's behaviour through different approaches.

CLO3: Explore the consumer's behaviour under certainty and uncertainty

CLO4: Demonstrate the concepts of production function.

CLO5: Explore the producer's behaviour.

CLO6: Describe the cost functions and its nature.

CLO7: Explain different types of market structure.

CLO8: Understand price and output determination in perfectly competitive market.

Unit	Content	Mapping with Course Learning Outcome
1. Introduction to Microeconomics and Theory of Consumer Behaviour	Wants and Scarcity, Microeconomic Theory and Price System, Concept of Margin, Models, Methodology and Value Judgement, Concept of firm and Industry; Basic Concept of Market Demand and Market Supply Analysis and Market in Equilibrium (with Algebra);	CLO1
	Utility analysis, Indifference Curves and its Properties, Budget Line, Consumers' Equilibrium (with Algebra), Corner Solutions, Income-Consumption Curve and Engel Curve, Substitution Effect and Income Effect, Decomposition of Substitution Effect and Income Effect (Hicks and Slutsky approach), Applications of Indifference Curve Analysis	CLO2
	Revealed Preference Theory	CLO2

2. Elasticity of Demand and Choice Under Uncertainty	The Market Demand for a Commodity, Price Elasticity of Market Demand, Determinants of Price Elasticity of Demand, Income Elasticity of Demand, Cross Elasticity of Demand, Marginal Revenue, Price and Elasticity.	CLO3
	Risk and Uncertainty in Demand Choices, Measuring Risk , Utility Theory and Risk Aversion, Different Preferences Toward Risk, Maximizing Expected Utility, Insurance and Gambling, Risk Aversion and Indifference Curves, Reducing Risk and Uncertainty.	CLO4
3. Production Theory and Cost of Production	Relating Outputs to Inputs, Production with One Variable Input, Law of Variable Proportions, Production with Two Variable Inputs, Iso-quants and its Characteristics, Law of Returns to Scale, Properties and Empirical Significance of Cobb-Douglas(C-D), Constant Elasticity of Substitution (CES) And Trans-Log (TL) Production Functions;	CLO5
	The Nature of Production Costs, Costs in the Short Run, Costs in the Long Run, Isocost Lines, Least-Cost Input Combination, Cost Minimization in the Long Run and the Short Run, Expansion Path and Long-Run Cost Curves, Expansion Path and the Long-Run Total Cost Curve, Multiproduct Firms and Dynamic Changes in Costs, Derivation of the Total Variable Cost Curve from the Total Product Curve, Input Substitution in Production to Minimize Costs.	CLO6
4. Market Structure and Perfect Competition	Market Structure and its Classification, Short-Run Equilibrium of the Firm- Total Approach (Maximizing the Positive Difference Between Total Revenue and Total Costs), Marginal Approach (Equating Marginal Revenue and Marginal Cost);	CLO7
	Profit Maximization versus Loss Minimization, Short-Run Supply Curve and Equilibrium, Short-Run Supply Curve of the Firm and the Industry, Long-Run Equilibrium of the Firm and the Industry, Efficiency Implications of Perfect Competition, Constant, Increasing and Decreasing-Cost Industries, International Competition in the Domestic Economy, Consumers' and Producers' Surplus, and the Efficiency of Perfect Competition, Welfare Effects of an Excise Tax, Effects of an Import Tariff.	CLO8
Mode of Examination : Theory **Marks Distribution : 30 (Internal Assessment) + 70 (End Semester Assessment)** **Total Marks : 100**		

Suggested Readings:

1. Varian, H. R. (2014). *Intermediate microeconomics: A modern approach (9th ed.)*. NY: W W Norton & Company.
2. Henderson, M., & Quandt. R.E. (2003). *Microeconomic theory: Mathematical approach (3rd ed.)*. India: Tata McGraw Hill.
3. Salvatore, D. (2003). *Microeconomics: Theory and applications (5th ed.)*. India: Oxford University Press.
4. Koutsoyiannis. A (1979). *Modern Microeconomics (2nd ed.)*, London: Macmillan Press.

5. Pindyck, R.S., Rubinfeld, D.L., & Mehta, P.L. (2015). *Microeconomics (*8th ed.). India: Pearson Education.

Master of Arts (Economics)
Semester: I

Course Nomenclature: Macroeconomics-I **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 102 C 3104 **Course Nature: Core**

Course Description:
Macroeconomics studies the aggregate behaviour of the economy. This course provides aggregate analysis of key macroeconomic variables such as output, employment and inflation. The important elements of the course include measurement of macroeconomic variables, the development of models and theories to explain the behaviour of macroeconomic variables, the use of empirical evidence in evaluating different models, and the role of government policy in seeking to influence macroeconomic outcomes. The course will provide students with a framework for understanding the workings of the whole economy and interactions among households, business and government.

Course learning outcomes are:
CLO1: Understand the major concerns and importance of Macroeconomics.
CLO2: Carry out the estimation of national income using various methods.
CLO3: Examine classical model of output and employment determination.
CLO4: Demonstrate Keynesian model of output and employment determination.
CLO5: Understand consumption function and its various theories.
CLO6: Describe the investment functions and its determinants.
CLO7: Explore the AD-AS framework in long run and short run.
CLO8: Explain economic fluctuations and policy implications in ad-as framework

Unit	Content	Mapping with Course Learning Outcome
1. Introduction to Macroeconomics and Measurement of National Income	Introduction: Origin, Major Concerns and Importance of Macroeconomics, Circular Flow of Income;	CLO1
	Various Concepts of National Income- GDP, NDP, GNP and NNP at Market Price and Factor Cost, Personal Income and Disposable Income, Nominal and Real GDP;	CLO2
	Methods of Estimations of National Income- Output Method, Income Method and Expenditure Method; Numerical Problems based on Calculation of National Income.	CLO2

	Social Accounting and Sectoral Break Down in Social Accounting, Difficulties in the Measurement of National Income, Importance of National Income Statistics.	CLO2
2. Classical and Keynesian Macroeconomics	The Classical Revolution, Say's Law, Wage Price Flexibility and Full Employment, Output and Employment Determination in Classical Macroeconomics (Complete Classical Model); Money, Prices and Interest in Classical Macroeconomics; Policy Implications of Classical Model of Output and Employment;	CLO3
	Neutrality of Money and Classical Dichotomy, Keynes's Criticisms of Classical Model of Output and Employment;	CLO3
	The Keynesian Revolution, Principle of Effective Demand and its Determination, Concepts of Underemployment Equilibrium, Aggregate demand and Aggregate Output with Fixed Price Level, Keynes' Model of Determination of Income (Two, Three and Four Sector Model with Algebraic Derivations), Changes in Equilibrium Income, Stabilization Policy under Keynesian System;	CLO4
	Numerical Problems based on Keynes' model of Determination of Income.	CLO4
3. Consumption and Investment	Consumption Function, Average and Marginal Propensity to Consume; Keynes Theory of Consumption, Consumption puzzle, Kuznets Findings;	CLO5
	Post-Keynesian Theories of Consumption- Relative Income Theory, Life Cycle Theory and Permanent Income Theory.	CLO5
	Investment Function, Autonomous and Induced Investment, Keynes Theory of Investment, Accelerator Theory of Investment, Super Multiplier, Tobin's q Theory of Investment, Impact of Inflation on Investment. Monetary and Fiscal Policy Measures and Investment.	CLO6
4. Aggregate Demand-Aggregate Supply Framework	Aggregate Demand (AD) Curve, Nature of Aggregate Demand and Derivation of Aggregate Demand (AD) Curve, Shifts in Aggregate Demand (AD) and Multiplier Effect;	CLO7
	Aggregate Supply (AS) Curve, Classical, Keynes and Modern View of Aggregate Supply (AS) Curve, Short Run and Long Run Aggregate Supply (AS) Curve, Shifts in Short Run and Long Run Aggregate Supply (AS) Curve,	CLO7
	AD-AS Equilibrium in Short Run and Long Run, Friedman Natural Rate of Employment Hypothesis and AD-AS Framework;	CLO7
	Economic Fluctuations and Policy Implications in AD-AS Framework.	CLO8
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Froyen, R. T. (2014). *Macroeconomics, theories and policies* (10th ed). India: Pearson Education.
2. D'Souza, E. (2012). *Macroeconomics (2nd ed.).* India: Pearson Education.
3. Gupta, G.S. (2017). *Macroeconomics: Theory and applications (4th ed.).* India: McGraw Hill Education.
4. Shapiro, E: *Macro-economic Analysis (5th ed.).* New Delhi: Galgotia Publications.
5. Dornbusch, R., Fischer, S., & Startz, R. (2018). *Macroeconomics (12th ed.).* India: McGraw-Hill Education.
6. Mankiw, N. G. (2019). *Macroeconomics.* United Kingdom: Macmillan Learning.

Master of Arts (Economics)
Semester: I

Course Nomenclature: Economic Growth and Development-I **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 103 C 3104 **Course Nature: Core**

Course Objective:
The objective of this course is to discuss the clear and comprehensive approach of development which has been so well received in both the developed and developing worlds. The objective of this course is to enrich the students with different concepts, theories and models of economic growth and development. The paper also deals with various theories of economic growth and development. By the end of the course, students will be able to understand the determinants which help an economy to utilize the resources to enhance the economic growth and development.

Course learning outcomes are:

CLO1: To distinguish between the concepts of growth and development
CLO2: To understand aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models.
CLO3: To identify the development issues in developing and developed nations.
CLO4: To identify the basic requirements for economic development of underdeveloped and developing countries.
CLO5: To analyze sectoral performance of Indian economy in respect to its development.
CLO6: To understand the importance of planning and planning models for the economic development.

Unit	Content	Mapping with Course Learning Outcome
1. Meaning and Measurement of Economic Development	Meaning and measurement of economic development; economic growth and development, economic development and welfare, meaning of economic under development, characteristic of under developed economies, vicious circle of poverty; measurement of development; conventional, human development index, and quality of life indices, concept of sustainable development.	CLO1 and CLO2
2 .Models of Development	The big push theory, critical minimum effort thesis, stages of economic growth, concept of take off into self-sustained growth, balanced versus unbalanced growth, balanced growth, unbalanced growth, Malthus Theory of population, factors in economic development, theories of development: Lewis model, Renis-Fei model.	CLO2, CLO3 and CLO4
3.Growth Models	Neo-classical model of economic growth; short run versus long run, three determinant of growth, basic	CLO3 and CLO4

	growth equation, conditions for steady state growth, stability of steady state growth, sources of growth, technical progress and neutrality of technical change.	
4. Development and Planning	Economic development and planning models: meaning of economic planning, planning versus price mechanism, main elements of plan and plan models; Harod-Domar model, Mahalanobis model and development plans in India.	CLO5 and CLO6
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Todaro, M.P. and Smith, S.C., *'Economic Development', Latest* edition, Pearson publication.

2. Thirawall, A., '*Growth and Development*', *Latest* edition, Macmillan Publication.

3. Ray, D., (1998), '*Development Economics*', Princeton University Press.

4. Bardhan, P. and C. Udry, (1999), *'Development Microeconomics*', Oxford University Press.

5. Agenor, P.R., and P. J. Montiel, (2008), *'Development Macroeconomics*', Princeton University Press.

6. Agarwala, A. N., & Singh, S. P. (Eds.). (1963). Economics of underdevelopment: A series of articles and papers. London : Oxford University Press.

7. Sen, A. (1999). Development as freedom. New Delhi : Oxford University Press

Master of Arts (Economics)
Semester: I

Course Nomenclature: Statistics-I **Credit: 5 (L: 3, T: 1, P: 1)**

Course Code: SBMS ECO 01 104 C 3115 **Course Nature: Core**

Course Description:
The aim of Statistics in the sense of a subject of study is to provide methods of organising and simplifying data so that their significance is comprehensible. A further aim of statistics is to provide methods of drawing valid inferences from samples. Therefore, the objective of this course is to make the students acquainted with statistical tools and techniques to understand the behaviour of data and its further analysis to increase the extent to which statistical thinking is embedded in economics for decision making. The course also aims to provide the knowledge of statistical packages so as to make the teaching learning process a problem solving and interesting one.

Course learning outcomes are:
CLO1: Understand the concepts of descriptive statistics.
CLO2: Understand, explain, solve and apply the measures of skewness and kurtosis
CLO3: Describe Sampling distributions and their significance.
CLO4: Apply concept of estimation and hypothesis testing on decision making processes.
CLO5: Conduct Chi-square test and analysis of variance.
CLO6: Carry out regression analysis on the data sets.
CLO7: Build simple regression models and use it for the managerial decision making and/or forecasting.
CLO8: Use statistical packages to analyse statistical data under consideration.

Unit	Content	Mapping with Course Learning Outcome
1.Descriptive Statistics	Data and its types, representation of data; Measures of central tendency from grouped and ungrouped data: arithmetic mean, median, mode, geometric mean, and harmonic mean, measures of dispersion from ungrouped data, range, mean deviation, quartile deviation, standard deviation and coefficient of variation.	CL01
	Measures of Skewness and Kurtosis: moments about origin, arithmetic mean, and an arbitrary value; concepts and computation of Skewness and Kurtosis.	CL02
	Skill Enhancement Practical 1: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for calculating/plotting descriptive statistics.	CL08

2. Probability and Probability Distribution	Introductory Ideas, Probability: The Study of Odds and Ends, Basic Terminology in Probability, Three Types of Probability, Probability Rules, Probabilities Under Conditions of Statistical Independence and Statistical Dependence, Bayes' Theorem;	CLO1
	Probability Distribution, Random Variables, Use of Expected Value in Decision Making	CLO1
	Discrete and Continuous Probability Distributions, The Binomial Distribution, The Poisson Distribution. Normal Distribution, Areas Under Normal Curve, Standard Normal Distributions and its Significance in Statistical Inferences, Using Standard Normal Distribution, Choosing the Correct Probability Distribution.	CLO2
	Skill Enhancement Practical 2: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for calculating/plotting probability in binomial distribution, poisson distribution and normal distribution.	CLO8
3. Sampling Distribution and Statistical Inferences	Introduction to Sampling, Random Sampling, Non-random Sampling, Design of Experiments, Sampling Distributions, The Relationship Between Sample Size and Standard Error.	CLO3
	Estimation: Estimator and Estimates, Criteria of a Good Estimator, Point Estimates and Interval Estimates, Interval Estimates and Confidence Intervals, Calculating Interval Estimates of the Mean from Large Samples, Interval Estimates Using the t-Distribution, Determining the Sample Size in Estimation.	CLO4
	Testing Hypotheses- One-Sample Tests of Hypotheses: , Basics of Hypothesis-testing Procedure, Hypothesis Testing of Means with Population Standard Deviation, Measuring the Power of a Hypothesis Test , Hypothesis Testing of Means with Unknown Population Standard Deviation; Two-sample Tests- Hypothesis Testing for Differences Between Means (Large Sample Sizes and Small Sample Sizes), Testing Differences Between Means with Dependent Samples.	CLO4
	Skill Enhancement Practical 3: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for statistical inferences (Estimation and Testing Hypothesis-z test and t test)	CLO8

4. Chi-Square Distribution and Analysis of Variance	The Chi- Square Distribution, Chi-Square as a Test of Independence, Chi-Square as a Test of Goodness of Fit, Analysis of Variance , Variance among the samples means and Within the Samples	CLO5
	The F Hypothesis Test ANOVA: One Way and Two Way, Inferences About a Population Variance (One Tailed and Two Tailed Test of Variance); Inferences About Two Population Variances (One Tailed and Two Tailed Test of Variance)	CLO5
	Skill Enhancement Practical 4: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for Chi-Square test and ANOVA.	CLO8
Mode of Examination : Theory and Practical Marks Distribution : 30 (Internal Assessment) + 20 (Practical Assessment) + 50 (End Semester Assessment) Total Marks : 100		

Suggested Readings:

1. Anderson, D.R., Sweeney, D.J., Williams, T.A., Camm J.D., & Cochran J.J. (2020). *Statistics for business & economics (13th ed.)*. India: Cengage Learning.
2. Levin, R. I., Rubin, D. S., Siddiqui, M.H., & Rastogi S. (2017). *Statistics for management. India (8th ed.)*. India : Pearson Education.
3. Bowerman, B., O'Connell, R., & Murphree, E. (2019). *Business statistics in practice using data, modeling and analytics (8th ed.)*. India: McGraw-Hill Education.
4. Triola, M. (2019). *Essentials of statistics* (6th ed.). Pearson Education.
5. Field, A. (2018). *Discovering statistics with IBM SPSS statistics (5th ed.)*. India: Sage Publications.
6. Field, A., Miles, J., & Field, Z. (2013). *Discovering statistics using R (1st ed.)*. India: Sage Publications.
7. Arora, P. N., Arora, S., Arora, S. & Arora, A. (2007). Comprehensive Statistical Methods. New Delhi: S. Chand & Company Ltd.
8. Gupta, S. P. (2014). Statistical Methods. New Delhi: Sultan Chand & Sons.
9. Sharma, J. K. (2007). Business Statistics, 2nd edition, Pearson Education.

Master of Arts (Economics)
Semester: I

Course Nomenclature: Indian Economy **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 105 C 3104 **Course Nature: Core**

Course Objective: The objective of this course is to make students understand with the current and critical issues, challenges and problems of the Indian economy.

Course learning outcomes are:

CLO1: Develop ideas of the basic characteristics of Indian economy, its potential on natural resources. Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government.

CLO2: To understand agriculture as the foundation of economic growth and development, analyze the progress and changing nature of agricultural sector and its contribution to the economy as a whole

CLO3: To deal with problems faced by small scale and cottage industries and to familiarize the students with the industrial policies in pre and post reform period in India.

CLO 4: To understand the basic features of Indian economy, sources of revenue, how the government manages the fiscal imbalance in the economy.

Unit	Content	Mapping with Course Learning Outcome
1. Features of Indian Economy	Characterization of Indian Economy as a Developing Economy, Output of the economy and its composition; Rationale, Features and Objectives of Indian Economic Planning, Outcomes of 12th Five Year Plan, Economic Reforms in India, Macroeconomic Stabilization, Structural Reforms, Performance of Indian Economy since Economic Reforms. Capital Requirement and Economic Growth; Domestic Savings and Capital Formation; Concept and Incidence of Poverty in India.	CLO1
2. Agriculture in India	Role, nature and cropping pattern of agriculture in India; public and private investment in agriculture; W.T.O. and Indian agriculture; causes and measures of low productivity in Indian agriculture; land reforms, agricultural inputs and green revolution;	CLO2

	importance, sources, and availability of agricultural finance; agricultural marketing in India; evaluation of government's agricultural policy; agricultural subsidies, public distribution system.	
3.Problems of Industry	Problems of small scale and cottage industries and government policy in India; industrial policy in pre and post reform period in India; evaluation of privatization and disinvestment policy in India; private sector in the post liberalization period.	CLO3
4. Monetary and Fiscal Policy	Monetary Policy of the Reserve Bank of India and its Appraisal; Fiscal Policy in India; Fiscal Imbalance, Deficit Finance and Fiscal Responsibility in India; Growth and Structure of India's Foreign Trade, the Pre and Post 1991 Period Balance of Payments Situation in India	CLO4
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Kapila, U. (2018), 'Indian Economy since Independence', Academic Foundation, 28th Edition.
2. Dutt and Sundharam, 'Indian Economy', 65th edition, S.Chand
3. Mishra & Puri, (2015), 'Indian Economy', Himalaya Publishing House.
4. Rangarajan, C., (2004), 'Select Essays on Indian Economy', Vol.1&2, Academic Foundation.
5. Government of India, Ministry of Finance, "Economic Survey (latest Issue).
6. Government of India, Ministry of Finance, "Finance Commission Report (latest Issue).
7. Krueger A. (2003), 'Economic Policy Reforms and the Indian Economy', Oxford University Press.
8. Dev, S. Mahendra, Babu, P.G. (2016), 'Development in India Micro and Macro Perspectives', Springer.

Detailed Semester wise syllabus with course objectives and course outcomes

Semester – II

Master of Arts (Economics)
Semester: II

Course Nomenclature: Microeconomics-II **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 201 C 3104 **Course Nature: Core**

Course Objective:

Microeconomics aims to enrich the students thorough understanding of the principles of economics that apply to the decisions of individuals, both consumers and producers within the larger economic system and the basic form of competitive environment in industry. This course aims to equip the students with theoretical concepts, methodology and process of reasoning involved in analyzing economic behaviour of individuals, firms and market using general, static and partial equilibrium framework**.**

On successful completion of the course, the learners will be able to-

CLO1: Understand the features of imperfectly competitive market..

CLO2: Determine the price and output in monopolistic competition and oligopoly.

CLO3: Analyse the neoclassical theories of firm and their applicability.

CLO4: Explore alternative theories of firm and their applicability

CLO5: Understand theories of factor pricing.

CLO6: Describe the determination of rent, wages, interest and profit.

CLO7: Explain principles of general equilibrium and welfare economics.

CLO8. Comprehend the usefulness of game theory and its relevance.

Unit	Content	Mapping with Course Learning Outcome
1. Monopolistic and Oligopolistic Competition	Monopolistic Competition and its Characteristics; Price and Output Decisions under Monopolistic Competition, Chamberlin's Alternative Approach, Equilibrium with Product Differentiation and Selling Costs, Excess Capacity under Monopolistic and Imperfect Competition;	CLO1, CLO2

	Oligopoly and its Characteristics, Collusive Oligopoly- Cartels, Price Leadership and Basing Point Price System; Non-collusive Oligopoly- Cournot, Bertrand, Chamberlin and Kinked Demand Models of Oligopoly;	CLO2
2. Theory of Firm	A Critique of Neoclassical Theory of the Firm; Alternative Theories of The Firm- Baumol's Sales Revenue Maximization Model, Williamson Model of Managerial Discretion,	CLO3; CLO4
	Marris Model of Managerial Enterprise, Bain's Limit Pricing Theory, The Behavioral Model of Cyert and March.	CLO4
3. Factor Pricing	Neoclassical Theory of Factor Pricing: Marginal Productivity Theory, Product Exhaustion Theorem, Elasticity of Technical Substitution, Technical Progress and Factor Shares.	CLO5
	Theory of Distribution in Imperfect Product and Factor Markets, Determination of Rent, Wages, Interest and Profits.	CLO6
4. General Equilibrium, Welfare Economics and Game Theory	Partial Equilibrium versus General Equilibrium, Walrus General Equilibrium Model; Existence, Uniqueness and Stability of Equilibrium; Graphical Illustration of Path to General Equilibrium;	CLO7
	Welfare Economics-Criteria of Social Welfare, The Pareto-Optimality Criterion, Kaldor-Hicks Compensation Criterion; Bergson's Social Welfare Function, Criterion Arrow's Impossibility Theorem; Maximisation of Social Welfare, Critique and Extensions.	CLO7
	Game Theory-Zero-Sum And Non-Zero-Sum Game, Pure And Mixed Strategy, Dominant Strategy, Nash Equilibrium, Critical Appraisal of Game Theory	CLO8
Mode of Examination : Theory **Marks Distribution : 30 (Internal Assessment) + 70 (End Semester Assessment)** **Total Marks : 100**		

Suggested Readings:

1. Varian, H. R. (2014). *Intermediate microeconomics: A modern approach (9th ed.)*. NY: W W Norton & Company.
2. Henderson, M., & Quandt. R.E. (2003). *Microeconomic Theory: Mathematical Approach (3rd ed.).* India: Tata McGraw Hill.
3. Salvatore, D. (2003). *Microeconomics: Theory and applications(5th ed.)*. India: Oxford University Press.
4. Koutsoyiannis. A (1979). *Modern Microeconomics (2nd ed.)*, London: Macmillan Press.

5. Pindyck, R.S., Rubinfeld, D.L., & Mehta, P.L. (2015). *Microeconomics (*8th ed.). India: Pearson Education.

Master of Arts (Economics)
Semester: II

Course Nomenclature: Macroeconomics-II **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 202 C 3104 **Course Nature: Core**

Course Description:
Macroeconomics studies the aggregate behaviour of the economy. This course provides aggregate analysis of key macroeconomic variables such as output, employment and inflation. The important elements of the course include measurement of macroeconomic variables, the development of models and theories to explain the behaviour of macroeconomic variables, the use of empirical evidence in evaluating different models, and the role of government policy in seeking to influence macroeconomic outcomes. The course will provide students with a framework for understanding the workings of the whole economy and interactions among households, business and government.

Course learning outcomes are:
CLO1: Derive IS-LM curves to determine equilibrium income.
CLO2: Explain Mundell-Fleming model and its policy implications.
CLO3: Understand measures of monetary and liquidity aggregate.
CLO4: Decompose the various components of time series.
CLO5: Understand the use of index number and problems associated to it.
CLO6: Develop index numbers for specific purpose.
CLO7: Apply Decision theory on practical managerial problems.
CLO8: Use statistical packages to analyse statistical data under consideration.

Unit	Content	Mapping with Course Learning Outcome
1. IS-LM Curves Model	Goods Market and IS Curve, Money Market and LM Curve, IS-LM Simultaneous Equilibrium (with Algebraic Analysis)	CLO1
	Explaining Fluctuations with the IS-LM model, Role of Fiscal and Monetary policy under IS-LM Frame Work	CLO1
	Slopes of IS curve and LM Curve and Effectiveness of Monetary and Fiscal Policy	CLO2

	Mundell-Fleming Model with Flexible and Fixed Exchange Rate Regimes, Impossible Trinity; Policy Implications (Fiscal, Monetary and Trade Policy) of Mundell-Fleming Model	
2. Money and Price Level	Money, Concept of Money Supply, Measures of Monetary and Liquidity Aggregates, Money Multiplier Theory of Money Supply, An Overview of Trends of Monetary Aggregates using RBI Database	CLO8
	Demand for Money, The Quantity Theory of Demand for Money (Fisher and Cambridge), Keynes Theory of Money Demand and Liquidity Preference,	CLO3
	Baumol and Tobin Demand for Money Demand, Friedman's Theory of Money Demand	CLO3; CLO4
	Money and Price Level (Fisher, Cambridge, Keynes and Friedman Approaches); Monetary Policy and its Instruments.	CLO4
3. Business Cycle and Inflation-Unemployment Trade off	Meaning and Phases of Business Cycle, Models of Business Cycles- Keynesian Model, Samuelson Model, Kaldor Model and Goodwin Model	CLO8
	Inflation- Unemployment Trade-off, Phillips Curve, Collapse of Phillips Curve, Phillips Curve with Adaptive and Rational Expectation, Sacrifice Ratio and Policy of Disinflation, Derivation of Phillips Curve from Aggregate Supply Curve;	
	Stagflation and Supply Side Economics	CLO6
4. New Classical Macroeconomics	New Classical (Lucas) Critique, Lucas Aggregate Supply function and Aggregate Demand Function, New Classical Rational Expectation Model. Policy Implications of New Classical Approach.	CLO7
	Lucas Rational Expectation Theory of Business Cycle, Real Business Cycle Theory, Random Walk of GDP Theory, Critical Evolution of Rational Expectation Model.	CLO7
	New Keynesian Economics and its Common Elements, Mankiw's New Keynesian Model (With Mathematical Form), Price Adjustment and Coordination Failure.	
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Froyen, R. T. (2014). *Macroeconomics, theories and policies* (10th ed). India: Pearson Education.
2. D'Souza, E. (2012). *Macroeconomics (2nd ed.).* India: Pearson Education.
3. Gupta, G.S. (2017). *Macroeconomics: Theory and applications (4th ed.).* India: McGraw Hill Education.
4. Shapiro, E: *Macro-economic Analysis (5th ed.).* New Delhi: Galgotia Publications.

5. Dornbusch, R., Fischer, S., & Startz, R. (2018). *Macroeconomics (12th ed.)*. India: McGraw-Hill Education.
6. Mankiw, N. G. (2019). *Macroeconomics*. United Kingdom: Macmillan Learning.

Master of Arts (Economics)
Semester: II

Course Nomenclature: Economic Growth and Development-II **Credit: 4 (L: 3, T: 1, P:0)**

Course Code: SBMS ECO 01 203 C 3104 **Course Nature: Core**

Course Objective:
The principle of development economics are key to understanding how we got to where we are, how great progress has been made in recent years in respect to different indictors of development and why many development problems remain so difficult to solve. It helps in understanding the concepts of international trade, environment, and industrial development.

Course learning outcomes are:

CLO1: To introduce students to the basics of development economics and to evaluate the role of institutions in economic growth.
CLO2: To identify the development issues in developing and developed nations.
CLO3: To identify the basic requirements for economic development of underdeveloped and developing countries.
CLO4: To understand aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models.
CLO5: To analyze sectoral performance of Indian economy in respect to its development.
CLO6: To understand the importance of planning and planning models for the economic development.

Unit	Content	Mapping with Course Learning Outcome
I	Role of education, knowledge, and governance in economic development; trade and development; trade as engine of growth; Perbish, Singer and Myrdal views, gains from trade and less developed countries (LDC), role of foreign direct investment (FDI) and multinational corporation (MNC) in economic development.	CLO1 and CLO2
II	Concept and measures of poverty; head count ratio, income gap ratio, Sen's poverty index; concept and measures of inequality; Lorenz curve and Gini's coefficient; growth and new industrial policy; privatization and disinvestments; labour market reforms; state and state failures; issues of good	CLO2 and CLO3

	governance.	
III	Economic development and environmental degradation: environmental Kuznet's curve, preservation and irreversibility of environmental change, Krutilla-fisher equation, energy and development.	CLO4 and CLO5
IV	Solow model: Basic Solow model, technology and Solow model, Solow model with human capital; Economics of ideas; Economic growth: Romer model, Endogenous growth: mechanics of endogenous growth, the deeper economics of endogenous growth, convergence, population growth and Malthus, Lessons from Asian tigers, natural resources as limits to growth, neoclassical versus endogenous growth theory.	CLO4, CLO5 and CLO6
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Todaro, M.P. and Smith, S.C., *'Economic Development', Latest* edition, Pearson publication.

2. Thirawall, A., '*Growth and Development*', *Latest* edition, Macmillan Publication.

3. Ray, D., (1998), '*Development Economics*', Princeton University Press.

4. Basu, K., (2003), '*Analytical Development Economics*', MIT Press.

5. Mishra S.K. and V.K. Puri, *Economics of Development and Planning*, *Latest* edition, Himalaya Publishing House, Mumbai

6. Agarwala, A. N., & Singh, S. P. (Eds.). (1963). Economics of underdevelopment: A series of articles and papers. London : Oxford University Press.

7. Sen, A. (1999). Development as freedom. New Delhi : Oxford University Press

Master of Arts (Economics)
Semester: II

Course Nomenclature: Statistics-II **Credit: 5 (L: 3, T: 1, P: 1)**

Course Code: SBMS ECO 01 204 C 3115 **Course Nature: Core**

Course Objective:

The aim of basic statistics in the sense of a subject of study is to provide methods of organising and simplifying data so that their significance is comprehensible. A further aim of statistics is to provide methods of drawing valid inferences from samples. Therefore, the objective of this course is to make the students acquainted with statistical tools and techniques to understand the behaviour of data and its further analysis to increase the extent to which statistical thinking is embedded in economics for decision making. The course also aims to provide the knowledge of statistical packages so as to make the teaching learning process a problem solving and interesting one.

Course learning outcomes are:
CLO1: Carry out regression and correlation analysis and use it for the managerial problems like prediction/ forecasting.
CLO2: Use modelling techniques.
CLO3: Demonstrate the understanding of concepts of time series and its composition.
CLO4: Decompose the various components of time series.
CLO5: Understand the use of index number and problems associated to it.
CLO6: Develop index numbers for specific purpose.
CLO7: Apply Decision theory on practical managerial problems.
CLO8: Use statistical packages to analyse statistical data under consideration.

Unit	**Content**	**Mapping with Course Learning Outcome**
1. Correlation and Regression Analysis	Correlation: Karl Pearson, Spearman's Rank and Concurrent Deviations; Coefficient of determination; Estimation of simple and exponential growth rates. Regression Model and Regression Equation	CL01
	Estimated Regression Equation, Least Squares Method , Coefficient of Determination, Model Assumptions, Testing for Significance- Estimates of σ^2, t Test, Confidence Interval for β_1, F Test	CL01
	Using the Estimated Regression Equation for Estimation and Prediction, Residual Analysis- Validating Model Assumptions, Detecting Outliers and Influential Observations	CL02

	Skill Enhancement Practical 1: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for regression and correlation analysis.	CL08
2. Time Series Analysis and Forecasting	Time Series and Variations in Time Series, Trend Analysis- Reasons for Studying Trends, Use of First Degree (Linear) and Second Degree (Curvilinear)	CLO3
	Trends in a Time Series and Projection/Forecasting; Cyclical Variation, Measures of Cyclical Variation- Percent of Trend and Relative Cyclical Residual	CLO3; CLO4
	Seasonal Variation- Reasons for Studying Seasonal Variation, Using Ratio-to- Moving Average Method, Uses of Seasonal Index, Problem Involving All Four Components of a Time Series	CLO4
	Skill Enhancement Practical 2: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for forecasting (Trend Projection and Time Series decomposition	CLO8
3. Index Numbers	Defining an Index Number, Types of Index Numbers, Uses of Index Numbers, Problem Associated to Index Numbers	CLO5
	Un-weighted Aggregates Index, Weighted Aggregates Index – Laspeyres Method and Paasche Method, Unweighted and Weighted Average of Relatives Methods	CLO6
	Quantity and Value Indices, Issues in Constructing and Using Index Numbers, Some Important Index of India- CPI, WPI and IIP	CLO6
	Skill Enhancement Practical 3: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for creating index number series.	CLO8
4. Decision Theory	The Decision Environment, Expected Profit Under Uncertainty, Maximising Profits Instead of Minimising Losses, Calculating Conditional Profits and Expected Profits, Expected Profit with Perfect Information	CLO7

	Using Continuous Distributions: Marginal Analysis, Deriving the Minimum Probability Equation, Using the Standard Normal Probability Distribution, Utility as a Decision Criterion,	CLO7
	Decision-Tree Analysis	
	Skill Enhancement Practical 4: Using statistical packages (MS Excel/Any relevant package decided by course instructor) for decision-tree analysis.	CLO8
Mode of Examination : Theory and Practical Marks Distribution: 30 (Internal Assessment) + 20 (Practical Assessment) + 50 (End Semester Assessment) Total Marks: 100		

Suggested Readings:

1. Anderson, D.R., Sweeney, D.J., Williams, T.A., Camm J.D., & Cochran J.J. (2020). *Statistics for business & economics (13th ed.)*. India: Cengage Learning.
2. Levin, R. I., Rubin, D. S., Siddiqui, M.H., & Rastogi S. (2017). *Statistics for management. India (8th ed.).* India : Pearson Education.
3. Thomas, R. L. (2011). *Using statistics in economics*. India: McGraw-Hill Education.
4. Bowerman, B., O'Connell, R., & Murphree, E. (2019). *Business statistics in practice using data, modeling and analytics (8th ed.)*. India: McGraw-Hill Education.
5. Field, A. (2018). *Discovering statistics with IBM SPSS statistics (5th ed.)*. India: Sage Publications.
6. Field, A., Miles, J., & Field, Z. (2013). *Discovering statistics using R (1st ed.)*. India: Sage Publications.
7. Arora, P. N., Arora, S., Arora, S. & Arora, A. (2007). Comprehensive Statistical Methods. New Delhi: S. Chand & Company Ltd.
8. Gupta, S. P. (2014). Statistical Methods. New Delhi: Sultan Chand & Sons.
9. Sharma, J. K. (2007). Business Statistics, 2nd edition, Pearson Education.

Master of Arts (Economics)
Semester: II

Course Nomenclature: Mathematical Economics-I Credit: 4 (L: 4, T: 1, P: 0)

Course Code: SBMS ECO 01 205 C 4105 Course Nature: Core

Course Objective: This course has been designed with the objective to learn applications of mathematical tools in Economics. This course is designed to kit out the learners to understand the principles and theories of Economics by using mathematical tools and techniques to craft aptness in decision making or policy formulation.

Course learning outcomes are:
CLO1: Understand the use of Mathematics/Mathematical models by economists.
CLO2: Know the concept of partial and general equilibrium.
CLO3: Acquire basic and applied knowledge of matrices and determinants.
CLO4: Solve simultaneous linear equations using matrices.
CLO5: Learn basic techniques of differentiation and their application in comparative static analysis.
CLO6: Apply method of differentials in comparative statics of general function models.
CLO7: Design optimization problems in case of one and more choice variable/s.
CLO8: Solve optimization problems in case of one and more choice variable/s.

Unit	Content	Mapping with Course Learning Outcome
1. Introduction to Mathematical Economics and Static (Equilibrium) Analysis	Use of Mathematics by Economists, Mathematical versus Nonmathematical Economics, Mathematical Economics versus Econometrics;	CLO1
	Economic Models, Ingredients of a Mathematical Model, The Real-Number System, The Concept of Sets, Relations and Functions, Types of Functions, Functions of Two or More Independent Variables, Levels of Generality	CLO1
	The Meaning of Equilibrium, Partial Market Equilibrium (Linear Model and Non-linear Model) General Market Equilibrium, Equilibrium in National-Income Analysis;	CLO2
2. Linear Model and Matrix Algebra	Matrices and Vectors, Matrix Operations, Notes on Vector Operations, Commutative, Associative, and Distributive Laws in Matrix Operations, Identity Matrices and Null Matrices,	CLO3
	Transposes and Inverses, Conditions for Non-singularity of a Matrix, Test of Non-singularity by Use of Determinant, Basic Properties of Determinants, Finding the Inverse Matrix,	CLO3

	Cramer's Rule, Application to Market and National-Income Models, Leontief Input-Output Models, Limitations of Static Analysis.	CLO4
3. Comparative-Static Analysis	The Nature of Comparative Statics, Rate of Change and the Derivative, The Derivative and the Slope of a Curve, The Concept of Limit, Digression on Inequalities and Absolute Values, Limit Theorems, Continuity and Differentiability of a Function;	CLO5
	Rules of Differentiation for a Function of One Variable, Rules of Differentiation Involving Two or More Functions of the Same Variable, Rules of Differentiation Involving Functions of Different Variables, Partial Differentiation, Applications to Comparative-Static Analysis; Jacobian Determinants.	CLO5
	Differentials, Total Differentials, Rules of Differentials, Total Derivatives, Derivatives of Implicit Functions; Comparative Statics of General Function Models- Market Model and ISLM Model, Limitations of Comparative Statics.	CLO6
4. Optimization Problems	The Case of One Choice Variable-Optimum Values and Extreme Values, Relative Maximum and Minimum (First-Derivative Test), Second and Higher Derivatives, Second-Derivative Test, Maclaurin and Taylor Series, Nth-Derivative Test for Relative Extremum of a Function of One Variable.	CLO7;
	The Case of More Than One Choice Variable- The Differential Version of Optimization Conditions, Extreme Values of a Function of Two Variables, Objective Functions with More than Two Variables, Second-Order Conditions in Relation to Concavity and Convexity, Economic Applications.	CLO8
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Chiang, A. C., & Wainwright, K. (2005). *Fundamental methods of mathematical economics (4th ed.)*. India : McGraw-Hill Education.
2. Sydsæter, K., & Hammond, P. J. (2019). *Mathematics for economic analysis (1st ed.)*. India: Pearson Education.
3. Renshaw, G. (2016). *Maths for economics (4th ed.)*. Oxford: OUP.
4. Bergin, J. (2015). *Mathematics for economist with applications (1st ed.)*. New York: Routhledge.
5. Hoy, M., Livernois, J., McKenna, C., Rees, R., & Stengos, T. (2011). *Mathematics for economics (3rd ed.)*. Cambridge, Mass: MIT Press.
6. Madnani, G. M. K. (2003). Mathematical Economics. New Delhi: Oxford IBH Publishing Co. Pvt. Ltd.

7. Nehar, P. A. (1971). Economic Growth and Development: A Mathematical Introduction. New York: John Wiley.

Master of Arts (Economics)
Semester: II

Course Nomenclature: Public Economics-I **Credit: 4 (L: 3, T: 1)**
Course Code: SBMS ECO 01 206 C 3104 **Course Nature: Core**

Course Objective:
Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. The objective of this course is to improve the knowledge of the students with the concepts and theories of public economics. The subject encompasses a host of topics including public goods, market failures and externalities. The paper is divided into two sections, one dealing with the theory of public economics and the other with the Indian public finance.

Course learning outcomes are:
CLO1: To understand the concept of public economics and its different provisions.
CLO2: To understand the need for government in the economy and different explanations for it.
CLO3: To analyze the problem posed by externalities and how is it managed efficiently.
CLO4: To understand the concept of public expenditure and its role in economic growth.
CLO5: To understand different tenets of taxation as incidence, equity and efficiency.
CLO6: To evaluate the impact of tax and tax incidence in determining and optimizing tax structure in India.

Unit	Content	Mapping with Course Learning Outcome
1. Allocation of resources	Allocation of resources – Provision of public goods; Voluntary exchange models; Demand revealing schemes for public goods – Tiebout model, theory of club goods; Stabilization Policy – Keynesian case of stabilization policy; Uncertainty and expectations; Failure of inter temporal markets; Liquidity preference; Social goals; Poverty alleviation; Provision of infrastructural facilities, removing distributional inequalities and regional imbalances	CLO1
2. Role of Government	Role of Government in an Economy - The Allocation, Distribution and The Stabilisation Functions; Private Goods, Public Goods, and Merit Goods; Market Failure - Imperfections, Decreasing Costs, Externalities; Wagner's law of increasing state activities; Wiseman Peacock hypothesis.	CLO2 and CLO3
3. Pure Theories	Pure theory of public expenditure; Structure and growth of public expenditure; Criteria for public investment; Social cost-benefit analysis – Project	CLO3 and CLO4

	evaluation; Estimation of costs, discount rate; Reforms in expenditure budgeting; Programme budgeting and Zero base budgeting.	
4. Theories of taxation	Theory of incidence; Alternative concepts of incidence – Allocative and equity aspects of individual taxes; Benefit and ability to pay approaches; Theory of optimal taxation; Excess burden of taxes; Trade-off between equity and efficiency; Theory of measurement of dead weight losses; The problem of double taxation.	CLO5 and CLO6
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Musgrave, R.A. and Musgrage, P.B., *'Public Finance in Theory and Practice'*, McGraw Hill.
2. John Cullis and Philip Jones (2009), *Public Finance and Public Choice – Analytical Perspectives*, 3rd edition, Oxford University Press.
3. Joseph E. Stiglitz (2000), *Economics of the Public Sector*, 3rd edition, W. W. Norton and Co.
4. GOI (2019), "Goods and Services Tax – Concept and Status - As On 01st June, 2019", *Central Board of Indirect Taxes And Customs (CBIC)*, Department Of Revenue, Ministry Of Finance Government of India,.
5. Atkinson, A. and J. E. Stiglitz (2015), *Lectures on Public Economics*, Princeton University Press.
6. Hindriks, J., G. Myles (2013), *Intermediate Public Economics*, 2nd edition, MIT Press.
7. Lekhi, R.K. and Singh, Joginder, *'Public Finance', Latest edition,* Kalyani Publishers.
8. Bhatia, H. L. (2006). Public finance. Vikas Publishing House Private Ltd

Detailed Semester wise syllabus with course objectives and course outcomes

Semester – III

Master of Arts (Economics)
Semester: III

Course Nomenclature: International Economics-I **Credit: (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 301 C 3104 **Course Nature: Core**

Course Objective: The objective of this course is augmenting the knowledge of students with practices and theories of trade between nations. This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy.

Course learning outcomes are:

CLO1: The first module/unit aims to introduce students to the main theoretical and empirical concepts in international trade, equip students with a thorough analytical grasp of neo-classical trade theories.

CLO2: To acquaint the students with derivation of the offer curve, partial equilibrium, general equilibrium and terms of trade.

CLO3: This module addresses the theories of factor endowments, Stopler Samuelson theorem, Leontief paradox and modern trade theories which include the economies of scale and imperfect competition.

CLO 4: To familiarize students with the main issues in trade policy and with the basic features of the international trading regime and trade protection.

Unit	Content	Mapping with Course Learning Outcome
1.Theories of International Trade	International economics: introduction, international trade and Nation's standard of living, current international economic problems; Trade theories: concept of international trade, basis for and gains from trade, trade based on Absolute Advantages, Comparative advantages, Comparative advantages and opportunity cost; standard theory of trade: production frontier with increasing costs, community indifference curve, equilibrium in isolation.	CLO1
2. Derivation of Offer Curve and Terms of Trade	Demand and supply, offer curves and terms of trade: Equilibrium relative commodity price with trade - a partial equilibrium analysis, general equilibrium analysis, offer curves, terms of trade.	CLO2
3. Factor Endowments Theory and Modern Trade Theory	Factor endowments and Heckscher Ohlin Theory: factor intensity, factor abundance, factor price equalization, and income distribution, Stopler Samuelson theorem, Leontief paradox; Modern trade theory: economies of scale, imperfect competition, product differentiation.	CLO3
4. International Trade Policies	International Trade Policy: Trade Restrictions; tariffs, partial equilibrium analysis of a tariff, theory of tariff structure,	CLO4

	general equilibrium analysis of tariff in small country and large country, optimum tariff; non-tariff barriers: import quotas, other non-tariff barriers and new protectionism, political economy of trade protectionism.	
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Salvatore, D., (2014), 'International Economics' 11th edition, Wiley.
2. Soderston, B.O. (1991), 'International Economics', Macmillan.
3. Krugman, P., Obstfeld, M., Melitz, M. (2018). International Economics - Theory and Policy, 11th ed. Pearson Education.
4. Pugel, T. (2015). International economics, 16th ed. McGraw-Hill.
5. Bhagwati, J. (1987). International trade: Selected readings. (Vol. 1). MIT Press.

Master of Arts (Economics)
Semester: III

Course Nomenclature: Econometrics-I **(Credit: 5 (L:3, T:1, P:1)**

Course Code: SBMS ECO 01 302 C 3104 **Course Nature: Core**

Course Objective:
The objective of this course is to acquaint the students with the economic relationship through mathematics and statistics in form of econometrics to verify the existing theories.

Course learning outcomes are:
CLO1: To equip the students with basic understanding of Econometrics and understand how the economic theories can be empirically tested.
CLO2: Students will understand the regression analysis to bring the relevant results from economic data.
CLO3: Enhancement in understand of regression their hypothesis testing and able to identify the relevant and irrelevant variables. Students also will be able to solve the practical economic problems.
CLO 4: Students will be able to solve the problems encounter with OLS application.
CLO 5: Broadly, after this course students will be able to convert economic theory in to mathematical equations and finally able to verify the theories with statistical tools by using statistical softwares.

Unit	Content	Mapping with Course Learning Outcome
1.Theoretical Background	Introduction: Broad classification of economic relations, stochastic and non-stochastic relations, econometrics versus mathematical economics, econometrics versus statistics, concepts of econometric and mathematical models and their essential ingredients, functions of econometrics, essential steps of an empirical study.	CLO1
2.Simple Linear Regression model and Estimation	The simple linear regression model: ordinary least squares (OLS) estimators and their properties, goodness of fit and tests of hypotheses, effect of changing scale and units of measurement of variables.	CLO2 and CLO3
3. Multiple Linear Regression model and Estimation	Multiple linear regression model: least squares estimators and their properties, coefficient of determination (R2) and adjusted coefficient of determination (R2) as measures of goodness of fit, commonly used functional forms, their choice and interpretation of coefficients, testing of hypotheses, testing individual coefficients, testing several coefficients jointly, testing linear combination of coefficients, computing R2, R2 and F-statistic when	CLO2 and CLO3

	there is no intercept term, effect of omitting intercept term, effect of inclusion of irrelevant and exclusion of relevant variable in the model.	
4. OLS assumption violations	OLS assumption violations: Multi-collinearity, Heteroscedasticity, and auto-correlation, detecting the problems, their consequences and solutions.	CLO4 and CLO5
Skill Enhancement Practical: With the help of MS-Excel, SPSS, STATA or other statistical software: 1. Estimation of Simple Regression model 2. Estimation of Multiple Regression model 3. Estimation of various functional forms 4. Testing of Hypothesis 5. Estimation of R^2 and Adjusted R^2 6. Detections, consequences and remedies of OLS assumption violations		
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) + Skill enhancement practical Theory (30 + 50) + Practical (20) = Total Marks: 100		

Suggested Readings:

1. Gujrati, D, N., Porter, D., and Sangeetha, G., (2017), '*Basic Econometric*s', McGraw Hill.
2. Wooldridge, J., (2009)., "*Introductory Econometrics: A Modern Approach*', SouthWestern Publisher.
3. Johnston, J., (1984), '*Econometric Methods',* 3rd edition, McGraw Hill.
4. Koutsoyiannis, A., '*Theory of Econometrics*', 2nd edition, Palgrave Macmillan.
5. Greene, W.H. (2012), '*Econometric Analysis',* 7th edition, Pearson Education Inc.

Master of Arts (Economics)
Semester: III

Course Nomenclature: Mathematical Economics-II Credit: 5 (L: 4, T: 1, P: 0)

Course Code: SBMS ECO 01 303 C 4105 Course Nature: Core

Course Objective: This course has been designed with the objective to learn applications of mathematical tools in Economics. This course is designed to kit out the learners to understand the principles and theories of Economics by using mathematical tools and techniques to craft aptness in decision making or policy formulation.

Course learning outcomes are:
CLO1: Solve problem of optimization with equality constraints related consumption and production.
CLO2: Apply homogenous, homothetic and CES functions in economic decision making.
CLO3: Learn techniques of integration.
CLO4: Demonstrate economic applications of integrals.
CLO5: Learn about concepts in linear programming problems and their solutions.
CLO6: Understand duality theory and dual problem
CLO7: Learn and use linear difference equations in equilibrium conditions.
CLO8: Learn and apply linear differential equations in economics in illustrating dynamic stability.

Unit	Content	Mapping with Course Learning Outcome
1. Optimization with Equality Constraints	Effects of a Constraint, Finding the Stationary Values, Second-Order Conditions, Quasi-concavity and Quasi-convexity; Utility Maximization and Consumer Demand;	CLO1
	Homogeneous Functions- Linear Homogeneity, Cobb Douglas Production Function;	CLO1; CLO2
	Least-Cost Combination of Inputs- First order and Second Order Conditions, Expansion Path, Homothetic Functions, Elasticity of Substitution, CES Production Function, Cobb Douglas Production Function as a Special Case of CES Function.	CLO2
2. Economic Dynamics and Integration	Dynamics and Integration, Indefinite Integrals- its Nature and Basic Rules, Definite Integrals- its Meaning and Properties, A Definite Integral as an Area under Curve, Improper Integrals,	CLO3

	Economic Applications of Integrals- Marginal Function to Total Function, Consumer and Producer Surplus, Present Value of Cash Flow.	CLO4
3. Linear Programming	Preliminaries, Graphical Approach to Simple Linear Programming Problem	CLO5
	Duality Theory and Dual Problem, The Duality Theorem, General Economic Interpretation, Complimentary Slackness, Duality When Some Constraints are Equalities.	CLO6
4. Difference and Differential Equations	First Order Linear Difference Equations, Homogenous and Non-homogenous Condition, Qualitative Analysis in Difference Equation, The cobweb model of supply and demand; First Order Linear Differential Equations, Homogenous and Non-homogenous Conditions, Qualitative Analysis in Differential Equations, Dynamic Stability of a Market.	CLO7, CLO8
Mode of Examination : Theory Marks Distribution : 30 (Internal Assessment) + 70 (End Semester Assessment) Total Marks : 100		

Suggested Readings:

1. Chiang, A. C., & Wainwright, K. (2005). *Fundamental methods of mathematical economics (4th ed.)*. India : McGraw-Hill Education.
2. Sydsæter, K., & Hammond, P. J. (2019). *Mathematics for economic analysis (1st ed.)*. India: Pearson Education.
3. Renshaw, G. (2016). *Maths for economics (4th ed.)*. Oxford: OUP.
4. Bergin, J. (2015). *Mathematics for economist with applications (1st ed.)*. New York: Routhledge.
5. Hoy, M., Livernois, J., McKenna, C., Rees, R., & Stengos, T. (2011). *Mathematics for economics (3rd ed.)*. Cambridge, Mass: MIT Press.
6. Madnani, G. M. K. (2003). Mathematical Economics. New Delhi: Oxford IBH Publishing Co. Pvt. Ltd.
7. Nehar, P. A. (1971). Economic Growth and Development: A Mathematical Introduction. New York: John Wiley.

Master of Arts (Economics)
Semester: III

Course Nomenclature: Public Economics-II **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 304 C 3104 **Course Nature: Core**

Course Objective:
This course deals with the government finances with special reference to Indian economy. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralization in India.

Course learning outcomes are:
CLO1: To understand the status of public welfare in context of Indian economy.
CLO2: To understand and justify various issues of debt and debt management in India.
CLO3: To understand the role of fiscal instruments and its status for Indian economy.
CLO4: To understand theory of fiscal federalism and its various functions within a theoretical and empirical context.
CLO5: To understand the roles of government from different perspective

Unit	Content	Mapping with Course Learning Outcome
1.Public Debt	Classical view of public debt; Compensatory aspect of debt policy; Burden of public debt; Sources of public debt; Debt through created money; Public borrowings and price level; Crowding out of private investment and activity; Principles of debt management and repayment.	CLO1 and CLO2
2.Objectives of Fiscal Policy	Objectives of fiscal policy – full employment, anti-inflation, economic growth, redistribution of income and wealth; Interdependence of fiscal and monetary policies; Budgetary deficit and its implications.	CLO2 and CLO3
3.Fiscal Policy Stabilization	Fiscal policy for stabilization – Automatic vs discretionary stabilization; Alternative measures of resource mobilization and their impact on growth, distribution and prices; Balanced budget multiplier.	CLO3
4.Multi-unit Finance	Principles of multi-unit finance; Fiscal federalism in India; Vertical and horizontal imbalances; Assignment of function and sources of revenue; Constitutional provisions; Finance Commission; Devolution of resources and grants; Theory of grants; Resource transfer from Union to States – Criteria for transfer of resources; Centre-State financial relations in India;	CLO4 and CLO5

	Problems of states' resources and indebtedness; Transfer of resources from Union and States to local bodies.	
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Musgrave, R.A. and Musgrage, P.B., *'Public Finance in Theory and Practice'*, McGraw Hill.
2. John Cullis and Philip Jones (2009), *Public Finance and Public Choice – Analytical Perspectives*, 3rd edition, Oxford University Press.
3. Joseph E. Stiglitz (2000), *Economics of the Public Sector*, 3rd edition, W. W. Norton and Co.
4. GOI (2019), "Goods and Services Tax – Concept and Status - As On 01st June, 2019", *Central Board of Indirect Taxes And Customs (CBIC)*, Department Of Revenue, Ministry Of Finance Government of India.
5. Atkinson, A. and J. E. Stiglitz (2015), *Lectures on Public Economics*, Princeton University Press.
6. Lekhi, R.K. and Singh, Joginder, *'Public Finance', Latest edition,* Kalyani Publishers.
7. Bhatia, H. L. (2006). Public finance. Vikas Publishing House Private Ltd

Master of Arts (Economics)

Semester: III

Course Nomenclature: Economic Insights from India's Indigenous Knowledge Systems

Credit: 2 (L: 1, T: 1, P: 0)

Course Code: SBMS ECO 01 305 C 2112 **Course Nature: Core**

Course Objective: The objective of initiating the course " Economic Insights from India's Indigenous Knowledge Systems " is to offer a comprehensive understanding of economics within the context of India's unique historical, cultural, and socio-economic fabric. This course aims to explore indigenous economic theories, practices, and systems that have evolved within the Indian subcontinent over centuries. By delving into the rich tapestry of Indian economic thought and tradition, the course seeks to provide students with insights into how these indigenous perspectives can complement and enrich conventional economic theories, fostering a more holistic understanding of economic phenomena in the Indian context. Additionally, the course may aim to promote the preservation, appreciation, and utilization of indigenous knowledge systems in contemporary economic discourse and policymaking.

On successful completion of the course, the learners will be able to-

CLO1: Learners will be equipped with knowledge of indigenous economic theories

CLO2: Understanding of how India's rich cultural and historical context has influenced economic thought and practices

CLO3: To navigate the intricacies of the Indian economic landscape with a nuanced understanding of its historical, cultural, and socio-economic dimensions

CLO4: Learners will develop critical thinking skills to critically evaluate conventional economic theories

CLO5: To understand and able to analyze the policy implications of incorporating indigenous economic knowledge into contemporary economic policymaking.

Unit	Content	Mapping with Course Learning Outcome
I	**Arthashastra an Insights into Ancient Indian Economic Thought**: Introduction to Kautilya's Economy, Public Finance – Pricing Policy & Taxation Policy, Nature and Purpose of Material Wealth Kautilya's views on Welfare State, Labour, Trade, Population, Agriculture.	CLO1 and CLO2
II	**Gandhian Economic Philosophy towards**	CLO2 and CLO3

	Sustainable Development: Introduction, aim & Scope, The Doctrine of Trusteeship Principle, Views on Consumption, Technology, Industrialization, Dignity of Labour & Machinery, Relevance to Modern India	
III	**Economic Ideals of Dr. B.R. Ambedkar:** Introduction, Main Idea, Aim & Scope, Decentralization of Imperial Finance, Agriculture Reforms, Land Reforms, Ambedkar's view on Banking System, Industrialization, State Management, Labour Problem, Currency Problem	CLO4 and CLO5
IV	**Dadabhai Naoroji's Economic Vision:** Introduction, Scope, Aim and Main Idea, Economy idea of Dadabhai Naoroji, The Drain Theory, Poverty, Views on other economy factors.	CLO3, CLO4 and CLO5
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 15+35 Total Marks: 50		

Suggested Readings:

1. Ajit K. Dasgupta (1993). A History of Indian Economic Thought, London and New York.
2. Rangarajan, L.N. (1992). Kautilya: The Arthashastra. Penguin Books.
3. Kautilya's Arthashastra, Translated by R. Shamashastry.
4. Pillai, R., & Sivanandhan, D. (2022). Chanakya's 7 Secrets of Leadership. JAICO.
5. Gandhi. M. K., (1959) India of my dreams, Navjivan publication house Ahmadabad.
6. Kumarappa, Joseph Cornelius (1951). Gandhian economic thought. Library of Indian economics (1st ed.). Bombay, India: Vora.
7. The Collected Works of Mahatma Gandhi, 90 volumes- Gandhi, M.K. (1958–84), New Delhi: Publications Division, Government of India.
8. Dr. B. R. Ambedkar (1923). The problem of Indian rupee: Its origin and its solution: (History of Indian Currency & Banking).
9. Thorat, S. (2017). Dr. Ambedkar and the Indian economy. Pearson India Education Services.
10. R. P. Mansi, Dadabhai Naoroji, (1960) publication Division, Government of India Delhi.
11. Dadabhai Naoroji and the Mechanism of External Drain'- Ganguli, B.N. (1965), Indian Economic and Social History Review, vol. 2: 85–102.

Master of Arts (Economics)
Semester: III

Course Nomenclature: Environmental Economics **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 306 DCEC 3104 **Course Nature: Elective**

Course Objective: The objective of this course is to enrich the knowledge of the students with concepts and theories of environmental economics.

Course learning outcomes are:

CLO1: Discuss the environmental issues in relation to the theory of externalities, public goods, and welfare.
CLO2: To understand the theories related with environment such as Kuznet's curve hypothesis and the concepts related with sustainable development and its measurement.
CLO3: To focus on the economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. Economic implications of environmental policy are also addressed as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments.
CLO 4: To understand that environmental problem is not the problem of a single country or region but a global problem/issue. Hence, policy formulation may be for all countries.

Unit	Content	Mapping with Course Learning Outcome
1.Concept of environmental Economics	Conceptual background of environmental economics; review of microeconomics and welfare economics; Distinction between environmental economics and natural resource economics.	CLO1
2.Environment and Development	Relation between development and environmental stress; Environmental Kuznet's curve hypothesis – theory and empirical evidence; concept of sustainable development; indicators of sustainability; various approaches to environmental accounting. Sustainable development: Concepts; measurement	CLO2
3.Issues on Environmental Economics	Issues of Environmental economics: Pareto optimality and market failure in the presence of externalities. Market failure; Pigouvian solution; Buchanan's theory; Coase's theorem and its critique; Pigouvian vs Coasian solution; Subsidies for Abatement of pollution-The case in the short and long run; choice between taxes and quotas under uncertainty; implementation of environmental policy.	CLO3
4.Trans-boundary Issues	Trans-boundary environmental problems; economics of climate change; trade and environment.	CLO4

Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100

Suggested Readings:

1. Robert N. Stavins, (2005), 'Economics of the Environment: Selected Readings', 5th edition, W.W. Norton Publisher.
2. Maureen L. Cropper and Wallace E. Oates, (1992), 'Environmental Economics: A Survey', Journal of Economic Literature, Vol 30, pp. 675-740.
3. Hanley, N., J.F. Shogren, and B. White, (2006), 'Environmental Economics: In Theory and Practice', Oxford University Press.
4. Kolstad, C., (2000), 'Environmental Economics', Oxford University Press.
5. Bhattacharya, R.N. (2001), 'Environmental Economics – An Indian Perspective', Oxford University Press.
6. Singh, K. and A. Shishodia, (2007), 'Environmental Economics: Theory and Applications', Sage Publications.

Master of Arts (Economics)
Semester: III

Course Nomenclature: Research Methodology **(Credit: 4 (L: 3, T:1, P:0)**

Course Code: SBMS ECO 01 307 DCEC 3104 **Course Nature: Elective**

Course Objective:
The objective of this course is to enrich the knowledge of the students with the methodological aspects of conducting a research especially in field of economics.

Course learning outcomes are:
CLO1: To equip the students with capability and skills on proper methodological foundations of economic research
CLO2: To be able to understand the concept of sampling and its various types.
CLO3: An in-depth skill to collect data, analyze and interpret it by using appropriate methods.
CLO4: Develop of Multivariate the understanding techniques.
CLO5: Mastery in drafting research reports, tools and techniques and derive conclusions and policy implications on topics of societal relevance and economic significance.

Unit	Content	Mapping with Course Learning Outcome
1.Conceptual background	Meaning and objectives of research, meaning and formulation of hypothesis, Methodology versus methods of research: research problem and selection of research problem; review of literature and its role in selecting a research problem;	CLO1
2.Research	Meaning and need for research design: meaning of	CLO2

Design	population, sample and sample size, meaning, types and characteristics of sample design, random and non-random sample, stratified and multistage random samples, systematic samples.	
3.Data Collection and Presentation and testing	Methods of data collection: primary and secondary data sources, brief information about databases of Indian economy, nature of cross section, time series and panel data, diagrammatic and tabular presentation of data, pie chart, bar diagram, histogram, scatter diagram, tracing of curve, one way and two way tables. Analysis of data: Hypothesis testing: parametric and non-parametric tests of hypothesis; correlation and regression analysis	CLO3
4.Multivariate Techniques and Report writing	Multivariate techniques: factor analysis, cluster analysis, multidimensional scaling, discriminant analysis. Report writing: structure, types and importance of report writing, guidelines for effective report writing.	CLO4, CLO5
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Theory (30 + 70) = Total Marks: 100		

Suggested Readings:

1. Kothari, C.R., (2002), '*Research Methodology: Methods and Techniques*', 3rd edition, New Age International Publisher.
2. Kumar, R. (2014), 'Research Methodology: A Step by step guide for beginners' 3rd edition, Sage Publications.
3. Ethridge, E, Don., '*Research Methodology in Applied Economics*', 2nd edition, Wiley.
4. Jonker, Jan, Pennink, Bartjan, (2009), '*The Essence of Research Methodology*', Springer.
5. Donald R Cooper and Pamela S. Schindler, (2013), '*Business Research Methods',* 12th edition, McGraw Hill.
6. Wilkinson and Bhandarkar, (2010), '*Methodology and Techniques of Social Research*, Himalaya Publishing House, Bombay.

Detailed Semester wise syllabus with course objectives and course outcomes

Semester – IV

Master of Arts (Economics)
Semester: IV

Course Nomenclature: International Economics-II Credit: 4 (L: 3, T:1, P: 0)

Course Code: SBMS ECO 01 401 C 3104 Course Nature: Core

Course Objective: The objective of this course is to make the students familiar with theories of trade, exchange rate, and the balance of payment and its facilitators.

Course learning outcomes are:

CLO1: To familiarize the students with the theories of international trade and economic development and to debate about the import substitution versus export orientation trade policies.

CLO2: To understand the concepts related to foreign exchange markets, exchange rate determination and monetary approaches to balance of payments.

CLO3: To have an elementary understanding of open-economy macroeconomics and the determinants of exchange rates and the balance of payments.

CLO4: To understand the past, present and future of international monetary system and the role and functions of World Bank and International Monetary Fund (IMF).

Unit	Content	Mapping with Course Learning Outcome
1.Trade and Development	Economic integration: customs, unions and free trade area; trade creation, trade diversion, theory of second best, dynamic benefits from trade unions. International trade and economic development: importance of trade to development, export instability and economic development, import substitution and export orientation.	CLO1
1. Balance of Payment	Balance of Payment; The Current Account The Capital Account; Foreign exchange markets and exchange rates: exchange rate, spot, forward rates, foreign exchange risks, hedging and market, interest arbitrary and efficiency of foreign exchange markets; exchange rate determination: purchasing power parity, monetary approach to balance of payment.	CLO2
3.Flexible Exchange rate	Flexible and fixed exchange rates, balance of payment adjustments with fixed and flexible exchange rate, income adjustment mechanism, income determination in a closed economy and small open economy. The IS-LM-BP model with flexible exchange rate.	CLO3
4.International monetary system	International monetary system: past, present and future, gold standard, Bretton woods, International Monetary Fund, World Bank.	CLO4
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Theory (30 + 70) = Total Marks: 100		

Recommended Readings:

1. Salvatore, D., (2014), 'International Economics' 11th edition, Wiley.
2. Soderston, B.O. (1991), 'International Economics', Macmillan.
3. Krugman, P., Obstfeld, M., Melitz, M. (2018). International Economics - Theory and Policy, 11th ed. Pearson Education.
4. Pugel, T. (2015). International economics, 16th ed. McGraw-Hill.
5. Bhagwati, J. (1987). International trade: Selected readings. (Vol. 1). MIT Press.

Master of Arts (Economics)
Semester: IV

Course Nomenclature: **Econometrics-II** Credit: 5 (L:3, T:1, P:1)

Course Code: **SBMS ECO 01 402 C 3115** Course Nature: Core

Course Objective:

The objective of this course is to acquaint the students with the applicability of econometrics to verify the existing relationships of economics. The focus is on conceptual understanding and 'hands on' applications using economic data drawn from real-world examples, rather than on formal theoretical proofs alone. By the end of the course, students should be able to develop econometric models and interpret the econometric and statistical results reported in other studies.

Course learning outcome are:

CLO1: To equip the students with basic understanding of Qualitative variables.
CLO2: To be able to apply various qualitative dummy variable models to real economic problems.
CLO3: Solve the practical problems based on simultaneous equations models
CLO4: Carry out the regression analysis on data set involving time lag and able to estimate the model with time lag.
CLO 4: To be able to perform economic analysis with simultaneous equations and able to identify the models.
CLO 5: Students will be able to estimate and forecast on the basis of trend
CLO 6: Solve the practical problems and able to forecast with time series data sets.

Unit	Content	Mapping with Course Learning Outcome
1. Dummy Variable Models	Qualitative variables as explanatory variables: estimating the shift in intercept and slope coefficient, interpretation of dummy coefficient in log-linear model, estimating season effects, testing for structural change; qualitative dependent variables, Linear probability model, Logit, Probit and Tobit models.	CLO1 and CLO2
2. Distributed lag Models	Distributed lag models: lagged independent variables, impact multiplier, interim multiplier, and long-run multiplier, Koyck approach, partial	CLO4

	adjustment model, adaptive expectation model, consequences of the presence of lagged dependent variables as regressors.	
3. Simultaneous equation models	Simultaneous equation models; structural and reduced form of simultaneous equation models; simultaneous equation bias,; identification problem; estimation procedures; indirect least squares (ILS), instrumental variables (IV), and two stage least squares (2SLS).	CLO3 and CLO4
4. Forecasting models	Forecasting: fitted values, ex-post, and ex-ante forecasts, evaluation of models, conditional and un-conditional forecasts, forecasting from time trends, forecasting from econometric models.	CLO5 and CLO6

Skill Enhancement Practical:

With the help of MS-Excel, SPSS, STATA or other statistical software:

1. Estimation of Dummy variable models (Dummy as Independent variable)
2. Estimation of Dummy variable models (Dummy as dependent variable)
3. Estimation of seasonal effect with Dummy models
4. Estimation of Lag model
5. Estimation of Simultaneous equations models
6. Trend Estimation
7. Time series forecasting

Mode of Examination: Theory (Internal Assessment + End Semester Assessment) + Skill enhancement practical

Theory (30 + 50) + Practical (20) = Total Marks: 100

Suggested Readings:

1. Gujrati, D, N., Porter, D., and Sangeetha, G., (2013), '*Basic Econometric*s', McGraw Hill.
2. Wooldridge, J., (2009)., "*Introductory Econometrics: A Modern Approach*', SouthWestern Publisher.
3. Koutsoyiannis, A., '*Theory of Econometrics*', 2nd edition, Palgrave Macmillan.
4. Walter Enders, (2010), '*Applied Time Series Econometrics'*, Wiley.
5. Greene, W.H. (2012), '*Econometric Analysis',* 7th edition, Pearson Education Inc.,
6. Maddla, G.S., Lahiri, K., *'Introduction to Econometrics'*, 4th Edition, Wiley

Master of Arts (Economics)
Semester: IV
Master of Arts (Economics)
Semester: III

Course Nomenclature: Health Economics **(Credit: 4 (L:3, T:1, P:0)**

Course Code: SBMS ECO 01 404 DCEC 3104 **Course Nature: Elective**

Course Objective:
This paper aims to equip student of an understanding that health is unlike any other good and train them in tools of health economics to analyse health outcomes, processes and policies.

Course learning outcome are:
CLO1: To equip the students with basic understanding of Health Economics.
CLO2: To be able to understand healthy care economy and health demand.
CLO3: To understand the supply side of health care system and working of modern hospitals.

CLO4: Elaborate, analyze and appreciate the health innovation practices, health insurance and technological progress in health sector.

CLO5: Develop understanding of various health care policies.

Course Objective:

Unit	Content	Mapping with Course Learning Outcome
1.Basics of health economics	Why health Economics? Health care economy, uncertainty and contagious good, Health economics as public finance, linkages with welfare economics. Demand for Health and Health Care: The Grossman Model, Socioeconomic Disparities in Health.	CLO1 and CLO2
2. Supply of Health care	Physician Supply: training and wages, barriers to entry, physician agency, discrimination. Hospitals industry: History of modern hospitals, relationship between hospitals and physicians, relationship between hospitals and payers.	CL03
3.Health Insurance	Economics of Health innovation Health Insurance: Demand, Adverse Selection, Moral Hazard. Economics of Health innovation: Pharmaceuticals, Patents, Regulations of pharmaceutical industry. Innovation and Technology, Technology Assessment	CLO4
4.Health Policy	Health Policy Health Policy conundrum: Arrow's impossibility thermos, health policy trilemma, regulations of health market, control over moral hazard, Regulation of health care provision, comparing national health policy; Nationalised health care, social health insurance, American model. Population Aging and the future of health policy.	CLO5
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Theory (30 + 70) = Total Marks: 100		

Suggested Readings:

1. Jay Bhattacharya, Timothy hyde, Peter Tu (2014) Health Economics, Palgrave Macmillan.
2. Anthony J. Cuyler and Joseph P.(ed) (2000),Handbook of Health Economics, Newhouse, North-Holland, Elsevier Science.
3. Clewar, Ann, and David Perkins, (1998), Economics for Health Care Management. London: Prentice Hall. Folland, Sherman, Allen Goodman, and Miron Stano. (2001), The Economics of Health and Health Care. New York: Macmillan, Third Edition.
4. Rice, Thomas(1998), The Economics of Health Reconsidered. Chicago: Health Administration Press. Sherman Folland, Allen C.
5. Goodman, and Miron Stano, (2004.), The Economics of Health and Health Care, 4th Edition, Prentice Hall. Santerre and Neun, (2004) Health Economics: Theories, Insights, and Industry Studies, Thomson/South Western.

Master of Arts (Economics)
Semester: IV

Course Nomenclature: Gender Economics **Credit: 4 (L: 3, T: 1, P: 0)**

Course Code: SBMS ECO 01 405 DCEC 3104 **Course Nature: Elective**

Course Objective:
This course is motivated to familiarize students with the key theoretical concepts, approaches and views related to the role of women in the achievement of development. This course will provide you with an overview of a recent literature in economics related to gender and economy and evaluates the effectiveness of different policies in mitigating them.

Course learning outcomes are:
CLO1: to demonstrate an understanding of theory on feminist economics and the challenges it poses to theories of economic development.
CLO2: to understand gender inequalities that exists in many spheres of the economy and how they become an obstacle to development.
CLO3: to discuss public policies that can be implemented to reduce gender inequality.
CLO4: to make aware of their own gender related assumptions and will be able to identify the kind of interactions required to challenge negative gender stereotypes.
CLO5: to be able to describe and critically discuss how gender equality shapes economic development and how economic development impacts on gender equality.

Unit	Content	Mapping with Course Learning Outcome
I	Difference between Gender and Sex; Concept of gender economics; Gender issues in economic theory; Gender division of work; Invisibility of women's work; Gender budget; Gender Audit. Approaches: Women in development (WID); Women and development (WAD), Gender and development (GAD); Neoliberal approaches.	CLO1 and CLO2
II	Gender Inequality in human development; Gender related development indices; Measuring gender empowerment; Women in agriculture; Women in industry; Women in services; Gender dimensions of International trade.	CLO2 and CLO3
III	Application of theories of capability and human capital for studying gender and education; Significance of Women's education; Gender gaps in educational achievements; Policies and Programmes for promoting women's education.	CLO2,CLO3 and CLO4
IV	Life cycle approach to gender specific health needs; Reproductive Rights; Gender dimension of national health policies and programmes; National Rural Health Mission; Reproductive and Child Health Programme; Women's Rights; Deprivation and marginalization of	CLO4 and CLO5

	women; Feminization of poverty: extent, causes and consequences.	
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. Arputhamurthy, S. (1990), *Women Work and Discrimination*, New Delhi: Ashish Publishing House.
2. Jacobsen, J. (2007), *The Economics of Gender*, Wiley-Blackwell.
3. Boserup Ester, (1970), *Women's Role in Economic Development*, George Allen and Unwin, London.
4. World Bank, (2012), *Gender Equality and Development: World Development Report 2012*. Washington, D.C: The World Bank. Overview, pp. 2-21.
5. Vlassoff, C. (2013), *Gender Equality and Inequality in Rural India: Blessed with a Son*, Palgrave Macmillan US.
6. Agarwal, Bina. (2016). *Gender Challenges: A three volume compendium of selected papers*, Oxford University Press

Master of Arts (Economics)
Semester: IV

Course Nomenclature: Applied Econometrics **(Credit: 4 (L: 3, T:1, P:0)**

Course Code: SBMS ECO 01 406 DCEC 3104 **Course Nature: Elective**

Course Objective:
The objective of this course designed to disseminate the applications of advanced econometrics techniques.
By the end of the course, students should be able to develop econometric models and interpret the econometric and statistical results reported in other studies.

Course learning outcomes are:
CLO1: To equip the students with basic understanding of pooled data models.
CLO2: To be able to understand time series analysis and its various methods
CLO3: Solve the practical problems based on Pooled and time series data
CLO4: Carry out the regression analysis on data set involving time series and pooled data
CLO5: To be able to check statinarity of data.
CLO 6: To be able to estimate the various forecasting models
CLO7: To be able to apply unit root test.
CLO8: Students will be able to estimate the long run and short run relationship between the economic variables
CLO9: Students will be able to check the direction of causality among the variables.

Unit	Content	Mapping with Course

		Learning Outcome
1.Panel data models	Pooled Cross section and panel data models; Pooling time series and cross section data; fixed effects; random effects, dynamic models. Time series models, difference equations and their solutions, solving homogeneous difference equations, particular solutions for deterministic process, the method of undetermined coefficients	CLO1, CLO2, CL03 and CLO4
2.Stationary time series models	Stationary time series models: stochastic difference equation models, ARMA models, stationarity, the autocorrelation function, the partial autocorrelation function, sample autocorrelations of stationary series, Box-Jenkins model selection, and seasonality.	CL03, CL04 and CLO5
3.Time Series model-I	Modeling Economic Time Series: Trends and Volatility: ARCH process, GARCH model, ARCH-M model; Testing for Trends and Unit Roots: Unit root processes, Dicky-Fuller tests, Augmented Dicky-Fuller test, Phillips Perron test.	CLO6 and CLO7
4.Time Series model-II	Introduction to VAR model, estimation and identification, the Impulse response function, structural VAR. Co-integration and Error Correction Models: Testing for co-integration, The Engle Granger methodology, Johansen methodology, ARDL bounds-testing approach.	CLO8 and CLO9
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Theory (30 + 70) = Total Marks: 100		

Suggested Readings:

1. Gujrati, D, N., Porter, D., and Sangeetha, G., (2013), '*Basic Econometrics*', McGraw Hill.
2. Wooldridge, J., (2009)., "*Introductory Econometrics: A Modern Approach*', SouthWestern Publisher.
3. Johnston, J., (1984), '*Econometric Methods',* 3rd edition, McGraw Hill.
4. Koutsoyiannis, A., '*Theory of Econometrics*', 2nd edition, Palgrave Macmillan.
5. Walter Enders, (2010), '*Applied Time Series Econometrics',* Wiley.
6. Baltagi , B.H (2005), '*Econometrics Analysis of panel data*', Wiley.

Master of Arts (Economics)
Semester: IV

Course Nomenclature: Behavioural Economics **(Credit: 4 (L:3, T:1, P:0)**

Course Code: SBMS ECO 01 407 DCEC 3104 **Course Nature: Elective**

Course Objective:
This paper will enable the students to learn to incorporate descriptively accurate assumptions about cognitive ability, social interaction, moral motivation, and emotional responses into economic modelling and explore the implications of this for human behaviour and economic outcomes. The paper will help students of economics to

Course learning outcomes are:
CLO1: To equip the students with understanding of economic decision-making process and role of psychology in it and to elaborate the deviation in reality and standard economic theoretical predictions in the framework of behavioural economics

CLO2: To be able to generate theoretical insights, make more accurate predictions of field phenomena, and suggest welfare improving policies.

CLO3: To understand the basic concepts of Behavioural Economics its origin and importance in decision making.

CLO4: Develop the understanding of choices under risk and uncertainty.

CLO5: Elaborate and analyze the market forces and role of behavioural change.

Unit	Content	Mapping with Course Learning Outcome
1. Introduction to Behavioural Economics	Introduction to Behavioural Economics Origins of Behavioural Economics, Decision-making under Neo-classical economic framework- rationality, optimization Role of Intuition, Emotions, Beliefs in decision making Bounded Rationality Judgment under Risk & Uncertainty : Heuristics & Biases Heuristics : Representativeness, Substitution, Availability, Affect, Anchoring, framing Biases: Cognitive and emotional biases	CLO1, CLO2 and CLO3
2. Choice under risk and uncertainty	Choice Under Risk & Uncertainty Expected Utility Prospect Theory – Reference Points – Risk Concept and Understanding – Loss Aversion – Shape of Utility Function – Decision Weighting – Probabilistic Judgment. Mental Accounting Framing Mental Accounts Fungibility & Labels Hedonic Editing	CLO1, CLO2 and CLO4
3. Inter-temporal Choices	Inter-temporal Choice, Temporal Choice, Construal Level Theory, Valuation of Delayed Consumption Preferences for Sequences of Outcomes, Hyperbolic Discounting, Preference Reversal Data Science and Quantitative Research to	CLO1 and CLO2

	Improve Workplace Decision-Making and Wellbeing	
4. Approaches of Behavioural Economics	Markets and Behavioural Approaches Awareness and the willingness as Deciding Drivers of Behavioural Change. Behavioural Game Theory Social preferences: Fairness, trust, cooperation, reciprocity, Norms Limited Strategic Thinking Choice architecture: Nudge, Nudge vs. boost, Behavioural public	CLO1, CLO2 and CLO5
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Theory (30 + 70) = Total Marks: 100		

Suggested Readings:

1. Erik Angner, "A Course in Behavioral Economics", Palgrave Macmillan
2. M. Altman, Handbook of Contemporary Behavioural Economics: Foundation and Developments (2007), Prentice Hall India
3. D. Kahneman, Thinking Fast and Slow (2011), Allen Lane, Penguin Books
4. G. Loewenstein, Exotic Preferences: Behavioural Economics and Human Motivation (2007), Oxford University Press
5. Sanjit Dhami, "The Foundations of Behavioral Economic Analysis", Oxford University Press (2016)
6. Behavioral Economics: Toward a New Economics by Integration with Traditional Economics by Ogaki, Masao, Tanaka, Saori C. Published by Springer, ISBN 978-981-10-6439-5
7. World Development Report 2015: Mind, Society, and Behavior

Generic Elective Course
(Offered to other Departments)

Course Nomenclature: Basic Economics **Credit: 4 (L: 3, T: 1)**
Course Code: SBMS ECO 01 101 GE 3104 **Course Nature: Elective**

Course Objective:
The objective of this course is to enrich knowledge of the students of non economic background.

Course learning outcomes are:
CLO1: To provide factual knowledge and learn basic economic principles.
CLO2: To make them learn how to apply economic theory in order to understand past, current, and future economic and social issues.
CLO3: To demonstrate how economic analysis can be applied to a variety of personal, societal, and international issues.
CLO4: To understand basic concepts of microeconomics.
CLO5: To develop the basic concepts of macroeconomics.
CLO6: To understand basic concepts of development economics.
CLO7: To make them aware about issues of international economics.

Unit	**Content**	**Mapping with Course Learning Outcome**
1. Microeconomics	Economics-Meaning, Nature and Significance, Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost, concept of utility and consumer's equilibrium, law of diminishing marginal utility, demand and supply concept with their shifts in curves, concept of elasticity (price & income) and factors affecting price and income elasticity, basic concept of cost ; total, fixed & variable cost, marginal , basic concept of revenue ; Revenue - total, average and marginal revenue - meaning and their relationships, definition of markets : perfect competition , imperfect competition and monopoly.	CLO1, CLO2, CLO3 and CLO4
2. Macroeconomics:	Some basic concepts: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation, Concept of national income including GDP, NNP, NDP, factor cost, and market cost, Concept of Disposable Income (gross and net), Private Income, Personal Income and Personal Disposable Income, Money; concept and functions. Concepts and function of central bank. Concept of budget, Concept of monetary and fiscal policy	CLO1, CLO2, CLO3 and CLO5

3. Economic Growth and Development	Concept of growth, concept of development, different between growth and development, determinants of economic growth and development, different economic system, role of government in economic growth and development, Role of education, knowledge, and governance in economic development; trade and development, concept of sustainable development, characteristics of underdeveloped countries, Concept and measures of poverty; head count ratio, income gap ratio.	CLO1, CLO2, CLO3 and CLO6
4. International Economics	**International Economics:** International economics- meaning and subject matter, relevance of international economics in present, international trade and its role in economic development, introduction of world's fastest economies, Basic concepts of absolute and comparative advantage theory, concept & role of FDI, FII and MNCs in economic growth, Introduction of international organizations; WTO, IMF, World Bank.	CLO1, CLO2, CLO3 and CLO7
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70 Total Marks: 100		

Suggested Readings:

1. A. Koutsoyiannis. (1979), *'Modern Microeconomics'*, International Edition, Palgrave Macmillan.
2. Varian, Hall R. (1992), *'Microeconomic Analysis'* 3rd edition, W.W. Norton & Company, New York.
3. Mankiew, G, N, 'Principles *of Macroeconomics*, 9th edition, Macmillan Learning.
4. Dornbusch, R., Fischer, S and Startz, R., (2015), *'Macroeconomics'*, 11th edition, McGraw Hill.
5. Thirawall, A., '*Growth and Development*', Macmillan Publication.
6. Ray, D., (1998), '*Development Economics*', Princeton University Press.
7. Salvatore, D., and Reed, (2013), '*International Economics*' 11th edition, Wiley.
8. Sodersten, B.O. (1991), '*International Economics*', Macmillan.

Generic Elective Course
(Offered to other Departments)

Course Nomenclature: Contemporary Issues in Indian Economy Credit: 4 (L: 3, T: 1, P: 0)

Course Code: SBMS ECO 01 102 GE 3104 Course Nature: Core

Course Objective: The objective of this course is to make students understand with the current and critical issues, challenges and problems of the Indian economy.

Course learning outcomes are:

CLO1: It helps in developing understanding of the students related to different sectors of Indian economy and to look into the behaviour of saving and investment in recent years.

CLO2: To understand agriculture as the foundation of economic growth and development, analyze the progress and changing nature of agricultural sector and its contribution to the economy as a whole. The students will also learn about the manufacturing sector and emergence of knowledge intensive industries in India.

CLO3: To know about the functions of Finance commission and the centre-state financial relations and to know about the current issues of the economy.

CLO 4: To familiarize the students about the policy, composition and direction of India's foreign trade.

Unit	Content	Mapping with Course Learning Outcome
1. Changing structure of Indian economy	Changing structure of Indian economy, Imbalance in occupational pattern and contribution to GDP, Determinants of acceleration in growth rate of GDP in India, Behaviour of saving and investment in recent years. Infrastructure bottlenecks in Indian economy, impact of institutional factors on development of Indian economy.	CLO1
2. Agriculture and Industry in India	Stagnancy in productivity in agriculture sector and trends in its diversification; Issues of competitiveness of Indian manufacturing sector, emergence of knowledge intensive industries in India.	CLO2
3. Centre-State finance relations	Centre-State finance relations; Recent Finance Commission, NITI Ayog; other sources of transfer; Tax revenue of the central and state governments; evaluation of Indian tax structure; Goods and services tax in India.	CLO3
4. Trade Policy	Recent foreign trade policy in India; Composition and Direction of India's foreign trade, Indian government's policy towards foreign capital; foreign investment inflows, foreign aid and India's external debt.	CLO4
Mode of Examination: Theory (Internal Assessment + End Semester Assessment) Ratio of Internal Assessment & End Semester Assessment: 30+70		

Total Marks: 100

Suggested Readings:

1. Dutt, R., & Sundharam, K. (Latest Edition). Indian Economy. New Delhi: S. Chand & Company Ltd.
2. Joshi, V., & Little, I. (2003). India's Economic Reforms, 1991-2001. New Delhi: Oxford University Press.
3. Kapila, U. (2013). Indian Economy Since Independence. New Delhi: Academic Foundation.
4. Parikh, K. (2013). India Development Report. New Delhi: Oxford University Press.
5. Singh, B. P. (2012). Indian Economy Today. New Delhi: Deep & Deep Publications Pvt. Ltd.
6. Chalam, K.S, 2012, Economic Reforms and Social Exclusion, Sage publications, New Delhi.
7. Ishwar C. Dhingra , 2012, The Indian Economy, Environment and Policy, Sultan Chand & Sons, New Delhi.
8. Ashima Goyal , (2014). Handbook of the Indian Economy in the 21st Century - Understanding the Inherent Dynamism, Oxford University Press, India

12. Teaching-Learning Process

Every discipline and programme of study lends itself to systematic exposition and the ordered and structured acquisition of knowledge and skills. Practical skills, including an appreciation of the link between theory and data, will constitute an important aspect of the teaching-learning process. Teaching methods may include lectures followed by Q&A session or group discussion, practical work, use of prescribed textbooks, electronic resources and other selfstudy materials, project work, which may be individual or team-based, activities devoted to subject-specific and interdisciplinary skills development, internship and visits to industrial or other research facilities etc. The broad teaching learning processes are:

1. Lectures
2. Discussions
3. Simulations
4. Participative Learning
5. Interactive Sessions
6. Seminars
7. Research-based Learning/Dissertation or Project Work
8. Technology-embedded Learning

13. Blended Learning

Blended Learning is a pedagogical approach that combines face to-face classroom methods with computer-mediated activities in the process of teaching and learning. It implies nice blend of face-to-face and online activities to make the learning processes more interesting and engaging. It focuses on integration of traditional classroom activities and innovative ICT-enabled strategies. It emphasises student-centric learning environment where the teacher is the facilitator for productive and measurable learning outcomes. It optimizes and compliments the face to face learning, giving ample freedom and flexibility to the students and teachers to access and explore the wide range of open-access sources such as video lectures, podcasts, recordings and articles through digital platforms. It gives freedom and autonomy to the teachers in selection of appropriate digital platforms, resources and time-slots to complement and supplement face to face learning. The Blended Learning doesn't undermine the role of the teacher, rather it gives him/her an opportunity to explore the unexplored in accordance with the requirements of the curriculum.

Key Features of Blended Learning:

Student-Centric Pedagogical Approach focusing on flexibility in timing, quality content, needs and interests of students and freedom to study through the mode of his/her choice;

- Freedom to Select variety of mediums and techniques;
- Increased student engagement in learning;
- Enhanced teacher and student interaction;
- Improved student learning outcomes;
- More flexible teaching and learning environment;
- More responsive for self and continuous learning;
- Better opportunities for experiential learning;
- Increased learning skills;
- Greater access to information, improved satisfaction and learning outcomes.

14. Assessment and Evaluation

A variety of assessment methods that are appropriate within a given disciplinary area and a programme of study will be used. Priority will be accorded to formative assessment. Learning outcomes will be assessed using one or more techniques listed below as decided by the competent authorities of the University from time to time.

1. Continuous Comprehensive Evaluation at regular after achievement of each Course-level learning outcome
2. Formative Assessment on the basis of activities of a learner throughout the programme instead of one-time assessment
3. Oral Examinations to test presentation and communication skills
4. Open Book Examination for better understanding and application of the knowledge acquired
5. Group Examinations on Problem solving exercises
6. Seminar Presentations
7. Review of Literature
8. Collaborative Assignments

15. Key Words

- Analysis
- Applied Econometrics
- Agricultural Economics
- Basic Economics
- Blended Learning
- Contemporary Issues in Indian Economy
- Course-level Learning Outcomes
- Comprehensive and Continuous Evaluation
- Development Economics
- Economics
- Econometrics-I
- Econometrics-II
- Economic Growth and Development-I
- Economic Growth and Development-II
- Environmental Economics
- Face to face (F to F) Learning
- Factors of production
- Formative Assessment and Evaluation
- History of Economic Thought
- International Economics-I
- International Economics-II
- Indian Economy
- Industrial Economics
- Knowledge
- Learning
- LOCF
- Microeconomic Theory-I
- Microeconomic Theory-II
- Macroeconomic Theory-I
- Macroeconomic Theory-II
- Mathematics for Economic Analysis
- NEP-2020
- Outcomes
- Programme Outcomes
- Programme Specific Outcomes
- Public Finance-I
- Public Finance-II
- Postgraduate Attributes
- Learning Outcome Index
- Research Methodology

- Statistical Analysis
- Skills
- Trade

References:

- National Education Policy-2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- The draft subject specific LOCF templates available on UGC website. https://www.ugc.ac.in/ugc_notices.aspx?id=MjY5OQ==
- Draft Blended Mode of Teaching and Learning: Concept Note available on UGC website. https://www.ugc.ac.in/pdfnews/6100340_Concept-Note-Blended-Mode-of-Teaching-and-Learning.pdf