

ಡಾ. ಮನಮೋಹನ ಸಿಂಗ್
ಬೆಂಗಳೂರು ನಗರ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ



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No.MSBCU/BoS/Syllabus-PG/Arts/134/2026-27

Date: 24.08.2026

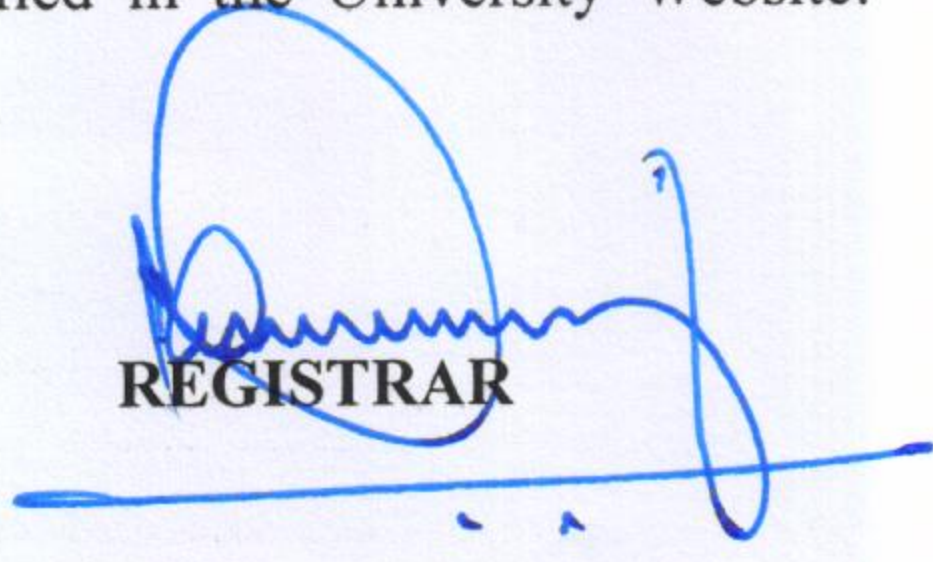
NOTIFICATION

Sub: Syllabus for the Post Graduate Courses in the Faculty of Arts –reg
Ref: 1. Recommendations of the Boards of Studies in the Faculty of Arts
2. Academic Council resolution No.06 dated.24.08.2026
3. Orders of Vice-Chancellor dated. 24.08.2026

The Academic Council in its meeting held on 24.08.2026 has approved the syllabus prepared by different Board of Studies for the Post Graduate Courses in the Faculty of Arts. Accordingly, the following CBCS Syllabus for the III & IV Semester PG Courses of Arts Faculty are hereby notified for implementation effective from the academic year 2026-27.

Sl. No.	Programmes
1.	M.A English – III & IV Semester
2.	M.A Japanese – I to IV Semester
3.	M.A Economics – III & IV Semester
4.	M.A Mass Communication & Journalism – III & IV Semester
5.	M.A History – III & IV Semester
6.	M.A Education – I to IV Semester

The detailed Syllabi for above subjects are notified in the University Website: www.bcu.ac.in for information of the concerned.


REGISTRAR

Copy to;

1. The Registrar(Evaluation), Dr. Manamohan Singh Bengaluru City University
2. The Dean, Faculty of Arts, MSBCU.
3. The Principals of the concerned affiliated Colleges of MSBCU- through email.
4. The P.S. to Vice-Chancellor/Registrar/Registrar (Evaluation), MSBCU.
5. Office copy / Guard file / University Website: www.bcu.ac.in



DR. MANMOHAN SINGH BENGALURU CITY UNIVERSITY

Syllabus for 3rd and 4th Semester MA Economics

2026-2027

**BANGALORE CITY
UNIVERSITY,
BENGALURU**

**MA
Economics**

**3rd & 4th
Semester**

2026-27 AY onwards

Dear Fellow Teachers,

I am pleased to share with you the proposed academic framework for the III and IV Semesters of the M.A. Economics Programme, designed to provide students with a balanced combination of advanced theoretical knowledge, technological skills, applied economics, and experiential learning. The III Semester strengthens the core foundation through Development Economics, International Economics, Econometrics-I, Artificial Intelligence and Machine Learning in Economics, and Advanced Computer Applications in Economics-I. These papers are complemented by skill-based options such as Introduction to Academic Writing in Economics and Economics of Human Resource Planning, along with open electives including Economics for Everyone and Indian Economy Since Economic Reforms.

The IV Semester further builds students' analytical and applied competencies through Environmental Economics, Econometrics-II, Indian Economic Thought, Computer Applications in Economics-II, and Financial Economics. The inclusion of Budgetary Theory and Practice and Economics of Dairy Farming: A Practical Approach as skill-based options provides students with opportunities to connect economic concepts with real-world applications. Most importantly, the Project Work/Internship component enables students to undertake field-based research, data analysis, case studies, and practical assignments, thereby bridging classroom learning with professional experience.

In this context, I humbly request all my colleagues to give greater emphasis to experiential and application-oriented teaching across the III and IV Semesters. Hands-on exercises in econometrics and computer applications, AI/ML-based economic analysis, practical data interpretation, academic writing, field studies, case studies, simulations, and project-based learning can significantly strengthen students' analytical and employability skills. The Project Work/Internship may also be used effectively to expose students to research institutions, financial organizations, government departments, industries, NGOs, and other relevant economic institutions.

Together, let us make the final two semesters of the programme a strong platform for advanced learning, digital competency, research orientation, practical exposure, and professional development, enabling our students to confidently pursue careers in academics, research, government, finance, industry, data analytics, and other emerging fields of economics.

With warm regards,

Dr. S. R. Keshava Chairperson, BOS PG Economics

Acknowledgment

I also take this opportunity to sincerely thank the Vice-Chancellor for providing me the opportunity to serve on the BOS (PG Economics). Our gratitude also extends to the Vice Chancellor's and Registrar's Secretariat for their continuous support in facilitating the logistics of this important academic exercise. - Dr S.R.Keshava, Prof S.T.Bagalkoti, Dr Rangappa K.B., Dr Bharadi, Dr Krishnaraj, Dr Navitha Thimmaiah., Dr Prema Kumar, Dr. Huchhe Gowda,

BCU MA Economics Syllabus Credit Structure

Category	Sl.No	Papers	No. of Credits	Total Credits
I Semester				
Core Papers	1.1	Advanced Microeconomics I	4	24
	1.2	Advanced Macroeconomics I	4	
	1.3	Mathematical Economics	4	
	1.4	Public Economics	4	
	1.5	Behavioral Economics	4	
Soft Core / Skill Based (Choose 1)	1.6.1	Agri Business	2	
	1.6.2	Economics of Banking and Financial Markets	2	
	1.6.3	Business Intelligence and Big Data	2	
Soft Core / Skill-Based (Choose 1)	1.7.1	Karnataka Economics	2	
	1.7.2	Foundation to Data Visualisation using Excel	2	
	1.7.3	Game Theory and Information	2	
II Semester				
Core Papers	2.1	Advanced Microeconomics II	4	24
	2.2	Advanced Macro Economics II	4	
	2.3	Statistical Methods for Economists	4	
	2.4	Research Methodology for Economics	4	
	2.5	Indian Economy: Growth, Policy, and Contemporary Issues	4	
Soft Core / Skill Based (Choose 1)	2.6.1	Economics and Stock Market Operations	2	
	2.6.2	Economics and Data Analytics	2	
	2.6.3	Empirical Methods in Finance	2	
Soft Core / Skill Based (Choose 1)	2.7.1	Programming with R for Economists	2	
	2.7.2	Advanced Data Visualisation using Excel	2	
	2.7.3	Cooperative Economics	2	
III Semester				

Core Papers	3.1	Development Economics	4	
	3.2	International Economics	4	26
	3.3	AI and ML in Economics	4	
	3.4	Advanced Computer Application in Economics - 1	4	
	3.5	Econometrics I	4	
Skill-Based Soft Core Paper (Choose 1)	3.6.1	Introduction to Academic Writing in Economics	2	
	3.6.2	Economics of Human Resource Planning	2	
Open Electives Core Papers (Choose 1)	3.7.1	Economics for Everyone	4	
	3.7.2	Indian Economy Since Economic Reforms	4	
IV Semester				
Core Papers	4.1	Environmental Economics	4	26
	4.2	Econometrics -II	4	
	4.3	Indian Economic Thought	4	
	4.4	Computer Applications in Economics II	4	
	4.5	Financial Economics	4	
Project work / Internship	4.6.1	Project work / Internship	4	
Skill-Based Soft Core Papers (Choose 1)	4.7.1	Budgetary Theory and Practice	2	
	4.7.2	Economics of Dairy Farming: A Practical Approach	2	
		Grand Total of Credits		100

**BANGALORE CITY UNIVERSITY,
BENGALURU**

**MA Economics
3rd Semester**

Academic Year 2026-27 onwards

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Development Economics		
Course Code:	ECO-DSC – 3.1	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To develop an understanding of economic development and its measurement.
- To explain major theories of economic growth and development.
- To analyse poverty, inequality and demographic changes in developing economies.
- To examine the role of agriculture, industry, infrastructure and services in development.
- To evaluate the contribution of human capital, urbanisation, migration, health and education to inclusive and sustainable development.

Course Outcomes

After completing this paper, students will be able to:

- Explain the key concepts and measures of economic development.
- Apply major theories of economic growth and development to developing economies.
- Analyse poverty, inequality and demographic changes using relevant economic data.
- Evaluate the contribution of agriculture, industry, infrastructure and services to economic development.
- Assess the role of human capital, migration and urbanisation in promoting inclusive and sustainable development.

MODULES	DESCRIPTION	60 Hours
Module I	FOUNDATIONS OF ECONOMIC DEVELOPMENT	10
	Nature and scope of economic development; economic growth and development; factors affecting economic growth; measurement of development through Human Development Index and Happiness Index; income inequality, Lorenz curve and Gini coefficient; Kuznets inverted-U hypothesis; Sen's capability approach; development versus displacement; sustainable development and SDGs; inclusive and sustainable development.	
Practicum	• Construct and interpret a Lorenz curve and Gini coefficient using secondary income-distribution data. • Compare HDI and selected development indicators across countries using UNDP data.	

Module II	THEORIES OF ECONOMIC GROWTH AND DEVELOPMENT	12
	Classical theories of Smith, Ricardo and Marx; Schumpeter's theory of innovation; Rostow's stages of growth; Lewis model of unlimited supply of labour and Fei-Ranis model; Critical Minimum Effort and Low-Level Equilibrium Trap; dualistic theories; Harrod-Domar and Solow models; new growth theories of Lucas and Romer; role of capital and technological change embodied and disembodied technical progress.	
Practicum	• Prepare a comparative analysis of classical, neoclassical and new growth theories. • Apply the Solow or Harrod-Domar model using hypothetical or secondary data.	
Module III	POVERTY, INEQUALITY AND DEMOGRAPHIC CHANGE	12
	Concepts and measurement of absolute and relative poverty; poverty and inequality; Nurkse's Vicious Circle of Poverty and Cumulative Causation; measurement of poverty in India; poverty alleviation policies; demographic transition; causes of population growth and fertility in developing economies; Malthusian theory; population and economic development; multidimensional poverty and social exclusion.	
Practicum	☐ Measure poverty and inequality in India using appropriate indicators and interpret the results. ☐ Analyze demographic trends and population growth using data on fertility, mortality, and population structure. ☐ Evaluate poverty alleviation policies and multidimensional poverty in India using relevant data and case studies.	
Module IV	STRUCTURAL TRANSFORMATION AND SECTORAL DEVELOPMENT	14
	Role of agriculture in economic development; agricultural productivity, technology and sustainable agriculture; globalization and agricultural growth; industry and economic development; choice of technology and employment; infrastructure and development; Big Push theory; balanced and unbalanced growth; role of the service sector in economic development; structural transformation and employment.	
Practicum	• Analyse sector-wise productivity and structural change in agriculture, industry and services using national income data. • Prepare a case study on infrastructure or agricultural technology and its impact on development.	
Module V	URBANISATION, MIGRATION AND HUMAN CAPITAL	12
	Urbanisation: trends, causes and consequences; urban gigantism and urban living conditions; migration and economic development; Todaro migration model; role of human capital in development; human capital formation and measurement; education and economic development; returns to education; gender gaps in education and employment; health, productivity and development; IMR and MMR; health policies; climate change, employment and human capital in developing economies.	
Practicum	• Analyse urbanisation and migration trends using Census or NSS data with reference to the Todaro model. • Examine returns to education or selected health indicators such as IMR and MMR using secondary data.	

Reading List

- Datt, R., & Sundharam, K. P. M. (2023). Indian economy: Performance and policies. S. Chand & Company.
- Goods and Services Tax Council. (2024). GST Council updates and meeting communiqués. Government of India. <https://gstcouncil.gov.in>
- Government of India, Ministry of Finance. (2026). Economic Survey 2025–26. <https://www.indiabudget.gov.in>
- Government of India, Ministry of Finance. (2026). Union Budget 2026–27: Budget speech and documents. <https://www.indiabudget.gov.in>
- International Monetary Fund. (2025). India: Article IV consultation—Staff report and press release. <https://www.imf.org>
- Kapila, U. (2023). Indian economy: Performance and policies. Academic Foundation.
- NITI Aayog. (2025). Annual report 2024–25. Government of India. <https://www.niti.gov.in>
- PRS Legislative Research. (2023). The Central Goods and Services Tax (Amendment) Bill, 2023. <https://prsindia.org>
- Reserve Bank of India. (2025). Annual report 2024–25. <https://rbidocs.rbi.org.in>
- World Bank. (2025). India development update. World Bank Group. <https://www.worldbank.org>

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	International Economics		
Course Code:	ECO-DSC-3.2	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To provide advanced theoretical and analytical knowledge of international trade and international economic relations.
- To develop quantitative and diagrammatic skills for analysing trade theories, gains from trade and terms of trade.
- To examine the effects of tariffs, trade policies and economic integration on different economies.
- To analyse foreign exchange markets, exchange-rate determination and balance of payments.
- To familiarise students with contemporary issues in international trade, WTO and global economic integration

Course Outcomes

After completing this paper, students will be able to:

- Analyse and solve numerical problems based on international trade theories using appropriate diagrams.
- Evaluate the welfare effects of tariffs, trade policies and economic integration.
- Interpret terms of trade, exchange-rate movements and balance-of-payments data.
- Apply international economic theories to trade and policy issues in developing and developed economies.
- Assess contemporary international trade issues and the role of institutions such as the WTO.

MODULES	DESCRIPTION	60 Hours
Module I	INTERNATIONAL TRADE AND THEORIES OF TRADE	12
	International economics: meaning, scope and importance; international trade: features, importance and determinants; international trade and economic development; measurement of gains from trade; classical theories of international trade including absolute cost advantage, comparative cost advantage, reciprocal demand and Haberler's opportunity cost theory; modern theories including factor endowment theory, Heckscher–Ohlin theory, Leontief Paradox, factor-price equalization, Prebisch–Singer hypothesis and Myrdal's backwash effect.	
Practicum	☐ Prepare a comparative advantage table for two countries producing two commodities and identify the pattern of specialisation. ☐ Solve a two-country, two-commodity numerical problem and calculate gains from trade. ☐ Use real-world data to identify a labour-abundant and capital-abundant country and relate it to the Heckscher–Ohlin theory.	

	☐ Analyse a short case on how specialisation and international trade benefit consumers and producers..	
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Module II	TERMS OF TRADE AND ECONOMIC GROWTH	12
	Trade and economic growth in the twenty-first century; growth in factor endowments and international trade; Stolper–Samuelson theorem; concepts and measurement of terms of trade including net barter, gross barter, single factoral, double-factoral, income and utility terms of trade; effects of technical progress on international trade; Rybczynski Theorem; immiserising growth and the relationship between trade, productivity and economic development.	
Practicum	☐ Calculate and interpret different measures of terms of trade using secondary data. ☐ Analyse changes in India's terms of trade over a selected five-year period. ☐ Prepare a short case study on trade as an engine of economic growth . ☐ Discuss how technological progress can influence trade and economic growth	
Module III	TARIFFS AND TRADE POLICIES	12
	Arguments in favour of and against tariffs; partial and general equilibrium analysis; offer curve analysis; non-tariff barriers including quotas, voluntary restraints and dumping; characteristics and trade problems of developing nations; free trade and protection; tariffs and trade policies; import substitution versus export-led growth; recent developments in tariff policies, Optimum tariff; contemporary trade disputes and changing patterns of trade protection.	
Practicum	☐ Use a diagram to show the welfare effects of a tariff. ☐ Calculate changes in consumer surplus, producer surplus and deadweight loss following the imposition of a tariff. ☐ Compare free trade and protectionism using a current trade-policy example. ☐ Analyse a case of dumping or import restrictions and discuss its effects on domestic producers and consumers.	
Module IV	FOREIGN EXCHANGE AND BALANCE OF PAYMENTS	12
	Meaning and instruments of foreign exchange; foreign exchange market; determination of equilibrium exchange rate; theories of exchange-rate determination including Mint Parity Theory, Purchasing Power Parity Theory and Balance of Payments Theory; meaning and structure of balance of payments; current account and capital account; financing of balance-of-payments surpluses and deficits; disequilibrium in balance of payments and methods of correction; exchange-rate fluctuations and their implications for international trade and economic activity.	
Practicum	☐ Calculate an exchange rate using the Purchasing Power Parity approach. ☐ Analyse changes in the INR–USD exchange rate over a selected period. ☐ Examine India's Balance of Payments using recent RBI data. ☐ Prepare a short analysis of how exchange-rate changes affect imports, exports and inflation.	
Module V	ECONOMIC INTEGRATION, WTO AND CONTEMPORARY TRADE ISSUES	12
	Economic integration: meaning, concept and benefits; forms of economic integration; integration among developing economies and associated challenges; World Trade Organization: structure and functions; multilateral,	

	regional and bilateral trade policies; customs unions; trade creation and trade diversion; theory of second best; static and dynamic benefits of regional integration; WTO and developing countries; European Union and G20; contemporary issues in international trade including digital trade, global value chains, sustainability and changing trade policies.	
Practicum	☐ Draw and explain trade creation and trade diversion using a simple numerical example. ☐ Compare two regional trade agreements in terms of their objectives, benefits and challenges. ☐ Prepare a short case study on a WTO trade dispute. ☐ Analyze the impact of digital trade, global value chains or sustainability requirements on international trade. ☐ Conduct a short classroom debate on free trade versus protectionism.	

Reading List	
	• Gopinath, G., Helpman, E., & Rogoff, K. (Eds.). (2014). Handbook of international economics. Elsevier. • Krugman, P. R., Obstfeld, M., & Melitz, M. J. (2018). International economics: Theory and policy (11th ed.). Pearson. Page 48 of 79 • Levi, M. D. (1998). International finance. Psychology Press. • Obstfeld, M., & Rogoff, K. (1996). Foundations of international macroeconomics. MIT Press. • Open Textbook Library. (n.d.). International economics: Theory and policy. University of Minnesota. • https://open.umn.edu/opentextbooks/textbooks/internationaleconomics-theory-and-policy • Pilbeam, K. (2005). International finance (3rd ed.). Palgrave Macmillan. • Sarno, L., & Taylor, M. P. (2003). The economics of exchange rates. Cambridge University Press. • Terra, C. (2015). Principles of international finance and open economy macroeconomics: Theories, applications and policies. Academic Press. • Yarbrough, B. V., & Yarbrough, R. M. (2005). The world economy: Trade and finance. South-Western College Publishing. • International Economics. (n.d.). ScienceDirect. • https://www.sciencedirect.com/journal/international-economics

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	AI and ML for Economics		
Course Code:	ECO-DSC-3.3	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To understand the fundamental concepts and principles of Artificial Intelligence and Machine Learning.
- To develop proficiency in selected Python tools for data handling and analysis.
- To develop skills in data preparation, visualization, and interpretation.
- To examine selected Machine Learning techniques and their practical applications.
- To demonstrate the use of AI and Machine Learning tools for addressing selected analytical problems.

Course Outcomes

After completing this paper, students will be able to:

- Explain fundamental concepts of AI and Machine Learning.
- Demonstrate proficiency in selected Python tools for data analysis.
- Prepare and interpret data using appropriate techniques.
- Examine selected Machine Learning techniques and their applications.
- Interpret AI/ML results for analytical decision-making.

MODULES	DESCRIPTION	60 Hours
Module I	INTRODUCTION TO AI AND MACHINE LEARNING	10
	Introduction to Artificial Intelligence and Machine Learning; scope and distinction from traditional econometric approaches; types of AI; types of Machine Learning including supervised, unsupervised and reinforcement learning; applications of AI and ML in forecasting, finance, labour markets and public policy; opportunities and limitations; ethical considerations including data privacy, algorithmic bias, fairness and responsible use of AI and ML.	
Practicum	☐ Examine a real-world application of AI/ML in economic forecasting or public policy and assess its usefulness. ☐ Compare the advantages and limitations of AI/ML and traditional econometric approaches using a selected case study.	

Module II	PYTHON FOR DATA ANALYSIS	12
	Introduction to Python; variables and basic data types; lists and dictionaries; conditional statements and loops; introduction to Pandas and NumPy; importing datasets from Excel and CSV files; data selection, filtering and transformation; basic data cleaning; summary statistics and frequency distributions.	
Practicum	☐ Import and organize a selected economic dataset using Pandas and perform basic data manipulation. ☐ Calculate and interpret summary statistics and create simple visualizations using Python.	
Module III	DATA PREPARATION AND VISUALIZATION	12
	Types of economic data; data cleaning and organization; handling missing values and duplicate observations; identifying basic data inconsistencies; working with categorical data; introduction to data visualization; line, bar, histogram and scatter plots; identifying patterns, trends and relationships; interpretation of visualized economic data.	
Practicum	• Clean and prepare an economic dataset, such as monthly inflation or unemployment data, by handling missing values and duplicate observations. • Create and interpret line, bar, and scatter plots using a dataset such as GDP, inflation, or unemployment to identify trends and relationships	
Module IV	INTRODUCTION TO MACHINE LEARNING TECHNIQUES	14
	Recapitulation of regression-based prediction; Introduction to Machine Learning approaches; supervised and unsupervised learning; training and testing of datasets; classification techniques; decision trees; k-nearest neighbours; clustering techniques; model evaluation and prediction; model selection and overfitting; interpretation of Machine Learning results.	
Practicum	☐ Apply a classification technique to a selected economic dataset and interpret the results. ☐ Apply clustering to an economic dataset and identify meaningful groups.	
Module V	MACHINE LEARNING FOR ECONOMIC DECISION-MAKING	12
	Applications of Machine Learning in economic forecasting, finance, consumer behaviour, labour markets and public policy; selected case studies; comparison of Machine Learning models; predictive performance; interpretation of results; limitations and ethical considerations in the use of Machine Learning.	
Practicum	☐ Compare two selected Machine Learning models using an economic dataset and evaluate their predictive performance. ☐ Analyse a real-world application of Machine Learning in finance, labour markets or public policy. ☐ Interpret Machine Learning results and discuss their implications for economic decision-making.	

Reading List

- Gans, J. (2025). *The Microeconomics of Artificial Intelligence*. MIT Press.
- Pradhan, M. & Kumar, U. D. (2025). *Machine Learning Using Python*. 2nd ed., Wiley India.
- Naudé, W., Gries, T., & Dimitri, N. (2024). *Artificial Intelligence: Economic Perspectives and Models*. Cambridge University Press..
- Arora, S. & Malik, L. (2023). *Data Science and Analytics with Python*. Universities Press.
- Rajagopalan, G. (2021). *A Python Data Analyst's Toolkit: Learn Python and Python-based Libraries with Applications in Data Analysis and Statistics*. Apress.
- Agrawal, A., Gans, J., & Goldfarb, A. (eds.) (2019). *The Economics of Artificial Intelligence: An Agenda*. University of Chicago Press/OUP India.

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Advanced Computer Applications in Economics – I		
Course Code:	ECO-DSC-3.4	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To familiarise students with basic computer and digital applications relevant to economics.
- To introduce MS Word and PowerPoint for economic reports and presentations.
- To acquaint students with Excel for organising, analysing and presenting economic data.
- To familiarise students with statistical analysis using Excel and SPSS.
- To introduce online tools and databases for accessing and managing economic data.

Course Outcomes

After completing this paper, students will be able to:

- Identify basic computer components and digital applications relevant to economics.
- Use MS Word and PowerPoint to prepare economic reports and presentations.
- Apply Excel tools to organise, analyse and present economic data.
- Interpret statistical results using Excel and SPSS.
- Use online databases and digital tools to collect and manage economic data.

MODULES	DESCRIPTION	60 Hours
Module I	COMPUTER AND DIGITAL APPLICATIONS FOR ECONOMICS	10
	Basic components of computers; hardware and software; types of computers and their applications; data storage and retrieval; operating systems and file management; internet browsing, information search and file convertibility; basic digital security and cloud-based applications.	
Practicum	• Organise and manage an economics-related set of digital files. • Search, download and convert economic data from online sources.	

Module II	MS WORD AND POWERPOINT FOR ACADEMIC AND ECONOMIC REPORTING	12
	MS Word: document creation and formatting; tables; page layout; references, citations and footnotes; equations; charts and SmartArt; table of contents; reviewing tools. MS PowerPoint: slide design and layouts; tables, charts and graphs; animations and multimedia; preparation of academic and economic presentations.	
Practicum	• Create an academic report in MS Word using headings, page layout, a Table of Contents, citations, footnotes, and references. • Prepare an economic data report containing a formatted table, equation, chart, and SmartArt diagram. • Review and finalize the report using spelling and grammar check, comments, Track Changes, page numbers, and professional formatting.	
Module III	SPREADSHEET APPLICATIONS FOR ECONOMICS	16
	MS Excel: data entry and formatting; sorting and filtering; tabular and graphical presentation; mathematical, statistical, logical and financial functions; cell references; charts; Pivot Tables; What-If Analysis; Solver; basic data management and protection	
Practicum	• Prepare and analyse an economic dataset using Excel functions and Pivot Tables. • Conduct a What-If Analysis or Solver exercise involving an economic decision problem.	
Module IV	SPSS for Data Management and Statistical Analysis	12
	Data entry and management; importing data from Excel; variable definition and value labels; grouping and transformation of variables; descriptive statistics; frequencies, percentages, averages and measures of dispersion; probability distributions; graphical presentation; correlation; hypothesis testing; ANOVA; interpretation of statistical output.	
Practicum	• Analyse a selected economic dataset using descriptive statistics and charts. • Conduct a statistical test/ANOVA using SPSS and interpret the results.	
Module V	Internet Applications, Cloud Computing and Data Security in Economics	10
	Internet applications in economics; online economic databases and data sources; cloud computing; file sharing and collaboration; data formats and file convertibility; basic concepts of data security and digital signatures.	
Practicum	• Download and organise economic data from a reliable online database. • Prepare and share a collaborative economic data/reporting file using cloud-based tools..	

Reading List

- Chandan, J. S. (2014). Excel for economists. Himalaya Publishing House.
- Dhanasekaran, K. (2010). Computer applications in economics. Vrinda Publications.
- Rajaraman, V. (2014). Fundamentals of computers (5th ed.). Prentice Hall India Learning.
- Sinha, P. K. (2004). Computer fundamentals. BPB Publications.
- Cleff, T. (2019). Applied statistics and multivariate data analysis for business and economics: A beginner's guide. Springer.
- Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2017). Basic econometrics (6th ed.). McGraw-Hill Education.
- Wooldridge, J. M. (2020). Introductory econometrics: A modern approach (7th ed.). Cengage Learning.
- **Web Resources / E-Resources**
- International Monetary Fund. (n.d.). IMF data. <https://www.imf.org/en/Data>
- Microsoft. (n.d.). Microsoft Excel support. <https://support.microsoft.com/excel>
- Ministry of Statistics and Programme Implementation. (n.d.). Statistics and data. Government of India. <https://www.mospi.gov.in>
- Reserve Bank of India. (n.d.). Database on Indian Economy. <https://data.rbi.org.in>
- World Bank. (n.d.). World Bank open data. <https://data.worldbank.org>

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Econometrics I		
Course Code:	ECO-DSC-3.5	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

1. **Understand** the theoretical foundations of econometrics and the role of regression analysis in economic research and policy formulation.
2. **Develop** the ability to formulate, estimate, and interpret simple and multiple regression models using appropriate econometric techniques.
3. **Examine** the assumptions of the Classical Linear Regression Model (CLRM) and evaluate the implications of their violation on estimation and inference.
4. **Identify and address** common problems in regression analysis, including heteroscedasticity, multicollinearity, autocorrelation, and specification errors, using suitable diagnostic and remedial measures.
5. **Apply** regression techniques involving qualitative variables, interaction effects, and limited dependent variable models such as Logit, Probit, and Tobit models.
6. **Analyze** panel data using pooled OLS, fixed effects, and random effects models and interpret their economic significance.
7. **Develop practical skills** in estimating econometric models, conducting diagnostic tests, and presenting empirical findings using statistical software.
Interpret and communicate econometric results effectively for evidence-based decision-making in economics, business, and public policy

Course Outcomes

After completing this paper, students will be able to:

- Explain the basic concepts of econometrics and estimate simple and multiple regression models using OLS. Interpret goodness-of-fit measures, correlation, ANOVA and regression results.
- Identify, test and address heteroscedasticity, multicollinearity and autocorrelation.
- Apply regression models involving qualitative and limited dependent variables.
- Estimate and interpret basic panel data regression models.

MODULES	DESCRIPTION	60 Hours
Module I	INTRODUCTION TO ECONOMETRICS	10
	Nature, meaning and scope of econometrics; economic models and econometric models; simple and multiple linear regression models; assumptions of the classical linear regression model; Ordinary Least Squares (OLS) estimation; properties of OLS estimators; Gauss–Markov theorem; normality assumption; goodness of fit; coefficient of determination (R^2) and adjusted R^2 ; simple, partial and multiple correlation; Analysis of Variance (ANOVA) in regression analysis; interpretation and reporting of regression results.	
Practicum	• Estimate and interpret a simple and multiple regression model using economic data. • Interpret R^2, adjusted R^2, ANOVA and regression coefficients from the model output. • Prepare and present a regression results table using statistical software.	
Module II	PROBLEMS IN REGRESSION ANALYSIS I	12
	Heteroscedasticity: nature, causes, consequences and detection; graphical and statistical tests for heteroscedasticity; remedial measures; OLS estimation in the presence of heteroscedasticity; Generalised Least Squares (GLS). Multicollinearity: nature, causes and consequences; perfect and imperfect multicollinearity; detection of multicollinearity; remedial measures; estimation and interpretation in the presence of multicollinearity.	
Practicum	• Test for heteroscedasticity and apply an appropriate remedial measure. • Detect multicollinearity using VIF and interpret its implications. • Compare regression results before and after correcting for the identified problem	
Module III	PROBLEMS IN REGRESSION ANALYSIS II	12

	Autocorrelation: nature, causes and consequences; detection of autocorrelation; graphical and statistical tests; OLS estimation in the presence of autocorrelation; remedial measures and BLUE estimator. Specification error: nature, causes and consequences; errors of measurement; omitted-variable bias; model specification and selection criteria	
Practicum	• Test for autocorrelation in a time-series regression and apply a suitable remedy. • Examine a model for specification error and identify an appropriate model. • Compare alternative models using AIC/BIC or other selection criteria.	
Module IV	REGRESSION WITH QUALITATIVE VARIABLES	14
	Dummy variable technique; qualitative independent variables; interpretation of dummy-variable coefficients; structural differences between groups; interaction effects; seasonal analysis; piecewise linear regression; dummy variable trap. Regression with qualitative dependent variables; Linear Probability Model – Its limitations, introduction to Logit, Probit and Tobit models; interpretation and applications.	
Practicum	☐ Estimate a dummy-variable regression to examine differences between selected groups. ☐ Estimate and interpret a regression model with an interaction effect. ☐ Apply a Logit or Probit model to a selected economic decision.	
Module V	PANEL DATA REGRESSION MODELS	12
	Nature and structure of panel data; advantages and limitations of panel data; pooled OLS regression; fixed effects model; dummy variable approach; within-group estimation; random effects model; comparison of fixed effects and random effects models; basic applications of panel data models.	
Practicum	☐ Estimate and interpret Pooled OLS, Fixed Effects and Random Effects models using panel data. ☐ Compare the results of Fixed Effects and Random Effects models and interpret the differences. ☐ Interpret the economic implications of the selected panel regression model.	

Reading List

	• Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2011). <i>Statistics for business and economics</i> (12th ed.). Cengage Learning. • Baltagi, B. H. (2021). <i>Econometric analysis of panel data</i> (6th ed.). Springer. • Greene, W. H. (2003). <i>Econometric analysis</i> (5th ed.). Pearson Education. • Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2021). <i>Basic econometrics</i> (6th ed.). McGraw Hill Education. • Johnston, J. (1994). <i>Econometric methods</i> (3rd ed.). McGraw-Hill. • Koutsoyiannis, A. (2015). <i>Theory of econometrics: An introductory exposition of econometric theory</i> (4th ed.). Palgrave Macmillan. • Krishna, K. L. (Ed.). (1997). <i>Econometric applications in India</i>. Oxford University Press. • Kumar, K. N. R. (2020). <i>Econometrics</i>. Narendra Publishing House. • Stock, J. H., & Watson, M. W. (2020). <i>Introduction to econometrics</i> (4th ed.). Pearson. • Wooldridge, J. M. (2020). <i>Introductory econometrics: A modern approach</i> (7th ed.). Cengage Learning.
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MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Introduction to Academic Writing for Economics		
Course Code:	ECO-SBSC-3.6.1	No. of Credits	2
Contact hours	30 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To introduce students to the conventions of academic writing in economics.
- To familiarise students with reading, interpreting and evaluating economic texts and sources.
- To enable students to construct clear economic arguments using relevant evidence and data.
- To strengthen academic writing, referencing and research skills in economics.
- To promote academic integrity through effective citation, paraphrasing and proofreading.

Course Outcomes

After completing this paper, students will be able to:

- Explain fundamental economic concepts and apply them to everyday situations.
- Analyse how incentives, prices and market forces influence economic decisions.
- Interpret basic economic information and data to understand economic issues.
- Evaluate the benefits, limitations and outcomes of markets and government policies.
- Discuss contemporary economic issues using appropriate economic reasoning.

MODULES	DESCRIPTION	30 Hours
Module I	FOUNDATIONS OF ACADEMIC WRITING IN ECONOMICS	15
	Understanding academic writing in economics; features and conventions of economic writing; reading and interpreting economics texts; identifying arguments, assumptions and evidence; understanding economic terminology and concepts; summarising and paraphrasing economic texts; using graphs, tables and economic data in written work; developing clear research questions and thesis statements; structuring paragraphs and short economic essays; using evidence to support economic arguments.	
Practicum	• Read a short economics article and identify its main argument, supporting evidence and key economic concepts. • Summarise and paraphrase a selected economics text using appropriate academic language and citation. • Write a 500-word analytical paragraph or short essay explaining an economic concept using a relevant example, graph or data.	

Module II	DEVELOPING AND REFINING ECONOMIC WRITING	15
	Developing analytical and critical arguments in economics; explaining economic concepts using appropriate evidence and examples; interpreting and discussing economic data, graphs and statistics; comparing different economic perspectives; integrating quotations, paraphrases and sources; citation and referencing in economics; Writing a literature -based economic argument, academic integrity and avoiding plagiarism; Responsible use of AI and digital tools in academic writing; writing introductions, analytical paragraphs and conclusions; editing for clarity, coherence, grammar and economic terminology; proofreading and revising an economics assignment.	
Practicum	• Interpret a given economic graph or dataset and write a short evidence-based analysis of the findings. • Write a 700-word argumentative essay on a contemporary economic issue, using at least three credible academic or economic sources. • Edit and proofread the essay for structure, clarity, referencing, grammar and academic integrity.	

Reading List	
	• Bellemare, M. F. (2020, September 7). How to write applied papers in economics. https://marcfbellemare.com/wordpress/13712 • Karreman, J., & Van Enckevort, A. (2007). Academic writing skills for economics and business administration. Boom. • Neugeboren, R., & Jacobson, M. (n.d.). Writing economics: A guide for Harvard economics concentrators. Harvard University. • Swales, J. M., & Feak, C. B. (2012). Academic writing for graduate students: Essential tasks and skills (3rd ed.). University of Michigan Press. • Wallwork, A. (2016). English for academic research: Writing exercises. Springer. • FutureLearn. (n.d.). Skills for higher learning: Introduction to academic reading and writing. FutureLearn. https://www.futurelearn.com/courses/skills-for-higher-learning-introduction-to-academic-reading-and-writing

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Economics for Human Resource Planning		
Course Code:	ECO-SBSC-3.6.2	No. of Credits	2
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To understand the fundamental concepts and principles of Artificial Intelligence and Machine Learning.
- To develop proficiency in selected Python tools for data handling and analysis.
- To develop skills in data preparation, visualization, and interpretation.
- To examine selected Machine Learning techniques and their practical applications.
- To demonstrate the use of AI and Machine Learning tools for addressing selected analytical problems.

Course Outcomes

After completing this paper, students will be able to:

- Explain the theories, principles and approaches of Human Resource Planning.
- Analyse workforce requirements and manpower forecasting data.
- Apply appropriate techniques for workforce planning, development and deployment.
- Evaluate workforce retention strategies and strategic HR planning practices.
- Assess workforce data using HR analytics to support human resource planning decisions.

MODULES	DESCRIPTION	60 Hours
Module I	THEORIES AND APPROACHES TO HUMAN RESOURCE PLANNING	10
	Concept, nature, scope and objectives of Human Resource Planning; significance of HRP at organizational, sectoral and national levels; Theories and approaches to Human Resource Planning; Manpower Planning Approach, Strategic HR Planning Approach, Systems Approach, Contingency Approach and Resource-Based View of Human Resources; human resource inventory and skills inventory; workforce profiling and competency mapping; job analysis and job design; succession and replacement planning; role of Human Resource Information Systems in HRP.	
Practicum	• Conduct a field visit to an organization to study its human resource planning practices, including workforce structure, skills and future manpower requirements. • Interview an HR manager/personnel officer to understand the organization's approach to workforce planning, competency mapping and succession planning.	

Module II	HUMAN RESOURCE FORECASTING	12
	Human resource forecasting: concept and significance; forecasting workforce requirements; quantitative and qualitative forecasting techniques; trend analysis, ratio analysis and productivity-based estimation; scenario-based workforce planning; forecasting skill requirements; workforce gap analysis; identification of manpower shortages and surpluses; workforce adjustment strategies; redeployment, reskilling and upskilling; manpower planning at organizational and sectoral levels.	
Practicum	- Conduct a field study of a selected organization to examine its methods of forecasting future workforce requirements and identifying manpower gaps. - Collect and analyse workforce data from a selected organization or sector to assess staffing levels, skill shortages and future manpower requirements.	
Module III	WORKFORCE DEVELOPMENT AND RETENTION	12
	Workforce development planning; training needs assessment; planning and evaluation of training programmes; skill development and reskilling; career planning and succession planning; employee deployment and redeployment; workforce flexibility; management of critical and scarce skills; employee turnover and retention; absenteeism and its implications for workforce planning; workforce utilization and productivity; workforce restructuring	
Practicum	- Conduct a field study of a selected organization to identify training and skill-development needs of employees. - Study employee turnover and retention practices in a selected organization and examine their implications for workforce planning.	
Module IV	STRATEGIC WORKFORCE PLANNING AND HR ANALYTICS	14
	Strategic workforce planning; alignment of workforce planning with organizational objectives; Human Resource Information Systems (HRIS); HR analytics and data-driven workforce planning; workforce metrics and indicators; human resource accounting; evaluation of workforce plans; demographic changes and workforce implications; technological change and changing skill requirements; automation and workforce transformation; future skills and emerging occupations; remote and flexible work; diversity and inclusion in workforce planning; contemporary challenges in Human Resource Planning in India..	
Practicum	- Conduct a field study to examine the impact of technological change on workforce requirements in a selected organization or industry. - Collect and analyse selected workforce indicators such as employee turnover, absenteeism and productivity for a selected organization.	
Module V	FUTURE OF WORK AND ADVANCED WORKFORCE PLANNING	12
	AI-enabled work and human-AI collaboration; generative AI and its implications for employment and job design; platform and gig economy; skills-based workforce planning; green jobs and the transition to sustainable employment; changing nature of occupations and employment relationships; workforce resilience and adaptability; ethical and social implications of emerging technologies in employment.	
Practicum	Analyse the potential impact of generative AI on employment and job roles in a selected industry.	

	• Examine the growth of gig/platform work and its implications for workforce planning. • Identify emerging skills and occupations in a selected sector and prepare a short future workforce plan.	
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Reading List	
	• Bhattacharyya, D. K. (2012). <i>Human Resource Planning</i>. 3rd ed., Excel Books, New Delhi. • Biswas, D. (2021). <i>Human Resource Planning and Utilization</i>. Crescent Publishing Corporation. • Uppal, N. (2020). <i>Human Resource Analytics: Strategic Decision Making</i>. Pearson India. • Sharma, E. (2018). <i>Strategic Human Resource Management and Development</i>. Pearson India. • Dhir, S., & Pal, S. (2021). <i>Human Resource Analytics: Theory and Application Techniques</i>. Cengage India. • Bhattacharyya, D. K. (2026). <i>Strategic Human Resource Planning: Text and Cases</i>. Routledge. • Yadav, R. S., & Maheshwari, S. (2020). <i>HR Analytics: Connecting Data and Theory</i>. Wiley India.

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Economics For Everyone		
Course Code:	ECO-SBSC-3.7.1	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To introduce students to fundamental economic concepts and principles relevant to everyday life.
- To explain how economic reasoning applies to individual, business and social decisions.
- To examine the functioning of markets, prices and economic institutions.
- To familiarise students with major economic issues such as growth, inflation, unemployment, trade, inequality and technological change.
- To encourage critical thinking about economic policies and contemporary economic issues.

Course Outcomes

After completing this paper, students will be able to:

- Explain fundamental economic concepts and apply them to everyday situations.
- Analyse how incentives, prices and market forces influence economic decisions.
- Interpret basic economic information and data to understand economic issues.
- Evaluate the benefits, limitations and outcomes of markets and government policies.
- Discuss contemporary economic issues using appropriate economic reasoning.

MODULES	DESCRIPTION	60 Hours
Module I	THINKING LIKE AN ECONOMIST	15
	Scarcity, choice and opportunity cost; incentives and decision-making; marginal thinking; preferences and constraints; information and decision-making; specialization and comparative advantage; economic trade-offs; and application of economic reasoning to everyday choices.	
Practicum	• Identify a real-life decision involving scarcity and opportunity cost. Explain the alternatives considered and the opportunity cost of the choice made. • Analyse a common everyday decision using the concepts of incentives, marginal thinking, preferences and constraints.	

Module II	MARKETS AND PRICES	15
	Demand and supply; price determination; elasticity and its everyday applications; consumers and producers; competition and market structures; benefits and limitations of markets; market failures; externalities and public goods; information asymmetry; and the role of government in correcting market outcomes.	
Practicum	• Select a commonly purchased product and examine how changes in demand and supply affect its price. • Analyse a real-life example of market failure, such as pollution, public goods or information asymmetry, and explain the possible role of government..	
Module III	ECONOMY, TRADE AND DEVELOPMENT	15
	Economic growth and productivity; employment and unemployment; inflation and purchasing power; specialization and trade; globalization; poverty and inequality; standards of living; technological change; and the role of institutions and economic policies in improving economic well-being.	
Practicum	• Using recent data, examine the trends in inflation, unemployment or economic growth in a selected country and discuss their implications. • Examine how international trade or technological change has affected a particular industry, product or group of workers.	
Module IV	ECONOMICS IN EVERYDAY LIFE	15
	Money and banking; saving and borrowing; interest rates; taxation and public expenditure; behavioural economics and decision-making; economics of education and health; environment and climate change; digital economy and digital payments; artificial intelligence and the future of work; interpretation of contemporary economic issues and policy debates.	
Practicum	• Prepare a simple monthly financial plan and explain the economic principles involved in saving, borrowing, interest rates and spending decisions. • Select a contemporary economic issue, such as digital payments, artificial intelligence, climate change or taxation, and analyse its impact on individuals and society.	

Reading List

- Acemoglu, D., Laibson, D., & List, J. A. (2019). *Economics* (2nd ed.). Pearson.
- Begg, D., Vernasca, G., Fischer, S., & Dornbusch, R. (2014). *Economics* (11th ed.). McGraw-Hill Education.
- Krugman, P., & Wells, R. (2021). *Economics* (5th ed.). Worth Publishers.
- Mankiw, N. G. (2021). *Principles of economics* (9th ed.). Cengage Learning.
- McConnell, C. R., Brue, S. L., & Flynn, S. M. (2021). *Economics: Principles, problems, and policies* (22nd ed.). McGraw-Hill Education.
- Parkin, M. (2020). *Economics* (13th ed.). Pearson.
- Samuelson, P. A., & Nordhaus, W. D. (2010). *Economics* (19th ed.). McGraw-Hill/Irwin.

MA–ECONOMICS
3rd SEMESTER

Program Name	MA in Economics	Semester	Third Semester
Course Title	Indian Economy since Economic Reforms		
Course Code:	ECO-SBSC-3.7.2	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To develop an understanding of the structure and growth of the Indian economy.
- To explain the major economic reforms introduced since 1991.
- To analyse developments in agriculture, industry, public finance and the financial sector.
- To examine India's external sector and contemporary economic challenges.
- To evaluate policies promoting inclusive and sustainable economic growth.

Course Outcomes

After completing this paper, students will be able to:

- Explain the major features and structural changes in the Indian economy.
- Apply economic concepts to understand the major reforms introduced since 1991.
- Analyse trends in agriculture, industry, public finance and the financial sector using economic data.
- Evaluate the impact of economic reforms on India's growth and external sector.
- Assess contemporary economic policies and challenges related to inclusive and sustainable growth.

MODULES	DESCRIPTION	60 Hours
Module I	INDIAN ECONOMY: STRUCTURE, GROWTH AND REFORMS	12
	Structure and characteristics of the Indian economy; demographic, sectoral and structural changes; indicators of economic development; national income and human development indicators; economic planning in India and its achievements and limitations; changing role of the State and markets; economic crisis of 1991 and its causes; New Economic Policy of 1991; liberalization, privatization and globalization; major policy changes under economic reforms; transition from Planning Commission to NITI Aayog.	
Practicum	Prepare a brief analysis of the 1991 economic crisis and the major reforms introduced in response, using secondary data and policy documents.	

Module II	PUBLIC FINANCE, FISCAL REFORMS AND THE BUDGET	12
	Structure of the Union Budget; revenue and capital receipts and expenditure; fiscal deficit, revenue deficit and primary deficit; tax reforms in India; GST design, implementation and recent developments; subsidies and public expenditure; Fiscal Responsibility and Budget Management framework; Finance Commission and Centre-State fiscal relations; fiscal federalism; changing patterns of public debt.	
Practicum	Analyse the latest Union Budget with reference to fiscal deficit, public expenditure, taxation and fiscal priorities.	
Module III	AGRICULTURE, RURAL ECONOMY AND INCLUSIVE DEVELOPMENT	12
	Structure and transformation of Indian agriculture; cropping patterns and agricultural productivity; agricultural markets, rural credit and institutional reforms; MSP and agricultural price policy; food security and PDS; rural employment programmes including MGNREGA; irrigation and agricultural technology; agricultural reforms and sustainability; rural infrastructure; rural-urban linkages and inclusive growth.	
Practicum	- Analyse changes in cropping patterns, agricultural productivity or MSP using recent secondary data. - Evaluate the performance of MGNREGA/PDS using government data.	
Module IV	INDUSTRY, INFRASTRUCTURE AND STRUCTURAL TRANSFORMATION	12
	Industrial development and industrial policy in India; 1991 industrial reforms and their impact; manufacturing, MSMEs and entrepreneurship; employment and structural transformation; Make in India and Production Linked Incentive (PLI) schemes; infrastructure development and financing; public-private partnerships; energy and transport infrastructure; trade policy and export diversification; FDI and globalization; impact of globalization on Indian industry; WTO and India; inclusive and sustainable industrial growth.	
Practicum	Prepare a sector/firm-level case study of an MSME cluster or PLI sector and examine its contribution to output, investment and employment.	
Module V	FINANCIAL SECTOR, EXTERNAL SECTOR AND CONTEMPORARY INDIAN ECONOMY	12
	Banking sector and financial sector reforms since 1991; role of RBI and monetary policy framework; inflation targeting and monetary policy instruments; non-banking financial institutions; financial inclusion and digital payments; external sector reforms; foreign trade, balance of payments and exchange-rate policy; FDI and capital flows; foreign exchange reserves; India's integration with the global economy; climate and energy transition, labour-market changes, digital economy and emerging policy challenges.	
Practicum	- Analyse RBI data on credit, deposits and NPAs. - Assess India's external-sector vulnerability using foreign exchange reserves, current account and capital-flow data.	

Reading List

- Datt, R., & Sundharam, K. P. M. (2023). Indian economy: Performance and policies. S. Chand & Company.
- Goods and Services Tax Council. (2024). GST Council updates and meeting communiqués. Government of India. <https://gstcouncil.gov.in>
- Government of India. (2026). Economic Survey 2025–26. Ministry of Finance. <https://www.indiabudget.gov.in>
- Government of India. (2026). Union Budget 2026–27: Budget speech and documents. Ministry of Finance. <https://www.indiabudget.gov.in>
- International Monetary Fund. (2025). India: Article IV consultation—Staff report and press release. <https://www.imf.org>
- Kapila, U. (2023). Indian economy: Performance and policies. Academic Foundation.
- NITI Aayog. (2025). Annual report 2024–25. Government of India. <https://www.niti.gov.in>
- PRS Legislative Research. (2023). The Central Goods and Services Tax (Amendment) Bill, 2023. <https://prsindia.org>
- Reserve Bank of India. (2025). Annual report 2024–25. Reserve Bank of India. <https://rbidocs.rbi.org.in>
- World Bank. (2025). India development update. World Bank Group. <https://www.worldbank.org>

**BANGALORE CITY UNIVERSITY,
BENGALURU**

MA
Economics
4th Semester

Academic Year 2026-27 onwards

MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	Environmental Economics		
Course Code:	ECO-DSC-4.1	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To provide advanced theoretical and analytical knowledge of international trade and international economic relations.
- To develop quantitative and diagrammatic skills for analysing trade theories, gains from trade and terms of trade.
- To examine the effects of tariffs, trade policies and economic integration on different economies.
- To analyse foreign exchange markets, exchange-rate determination and balance of payments.
- To familiarise students with contemporary issues in international trade, WTO and global economic integration

Course Outcomes

After completing this paper, students will be able to:

- Analyse and solve numerical problems based on international trade theories using appropriate diagrams.
- Evaluate the welfare effects of tariffs, trade policies and economic integration.
- Interpret terms of trade, exchange-rate movements and balance-of-payments data.
- Apply international economic theories to trade and policy issues in developing and developed economies.
- Assess contemporary international trade issues and the role of institutions such as the WTO.

MODULES	DESCRIPTION	60 Hours
Module I	INTRODUCTION TO ENVIRONMENTAL ECONOMICS	12
	Meaning, nature and scope of environmental economics; interaction between the economy and the environment; systems approach; thermodynamic principles and the environment; environment–development–poverty nexus; sustainable development; natural capital and the role of environmental resources in economic development.	
Practicum	• Analyse a case study on the relationship between economic development, poverty, resource use and environmental sustainability. • Examine a local or national example to identify the environment–development trade-off and relate it to the Sustainable Development Goals.	
Module II	MARKET FAILURE AND ENVIRONMENTAL POLICY	12
	Market failures: meaning and causes; externalities: meaning and types; public goods private and social costs; internalisation of externalities; Pigouvian solutions; Coase's theorem and property rights; environmental regulation; command-and-control and market-based instruments; environmental standards and quotas; tradable permits; environmental taxes and subsidies.	

Practicum	• Identify and analyse a real-world environmental externality or public-good problem. • Compare policy instruments such as Pigouvian taxes, subsidies, standards and tradable permits and evaluate their effectiveness.	
Module III	NATURAL RESOURCES AND ECONOMIC DEVELOPMENT	12
	Natural resources: importance, classification and resource taxonomy; renewable and non-renewable resources; economics of exhaustible resources; scarcity rents; Hotelling's theory of optimal depletion; recent approaches to resource management; common property resources; tragedy of the commons; property rights and resource management; energy resources and their role in economic development.	
Practicum	• Analyse a case study involving the management of a renewable or non-renewable natural resource. • Apply Hotelling's rule to a simple numerical problem and examine the issue of optimal resource depletion. • Analyse a common-property resource problem using the concept of the tragedy of the commons.	
Module IV	ECONOMIC VALUATION OF THE ENVIRONMENT	12
	Total economic value; use value, option value and non-use value; direct and indirect methods of environmental valuation; contingent valuation method; travel cost method; hedonic pricing method; cost-benefit analysis; environmental impact assessment; integrated economic and environmental accounting; application of economic valuation to environmental policy and projects.	
Practicum	☐ Apply an appropriate environmental valuation method to a selected environmental resource or project. ☐ Conduct a simple cost-benefit analysis of an environmental project. ☐ Examine and interpret an Environmental Impact Assessment (EIA) report.	
Module V	ENVIRONMENTAL POLLUTION, CLIMATE CHANGE AND MANAGEMENT	12
	Environmental pollution and its economic impacts; global environmental externalities; climate change and its economic and social consequences; adaptation and mitigation strategies; people's participation in natural resource management; environmental regulation in India; environmental institutions and policies; international trade and the environment; tradable pollution permits; carbon pricing and international carbon taxes; contemporary challenges in environmental management.	
Practicum	☐ Analyse a case study on pollution control or climate-change mitigation and evaluate alternative policy measures. ☐ Examine an environmental regulation or policy in India and assess its economic and environmental implications. ☐ Discuss the use of carbon taxes or tradable pollution permits as instruments for addressing environmental problems.	

Reading List

- Baumol, W. J., & Oates, W. E. (1988). The theory of environmental policy (2nd ed.). Cambridge University Press.
- Bhattacharya, R. N. (2001). Environmental economics: An Indian perspective. Oxford University Press.
- Common, M., & Stagl, S. (2005). Ecological economics: An introduction. Cambridge University Press.
- Field, B. C., & Field, M. K. (2013). Environmental economics: An introduction (6th ed.). McGraw-Hill.
- Fisher, A. C. (1981). Resource and environmental economics. Cambridge University Press.
- Hanley, N., Shogren, J. F., & White, B. (1997). Environmental economics in theory and practice. Macmillan.
- Hartwick, J. M., & Olewiler, N. (1986). The economics of natural resource use. Harper & Row.
- Hussen, A. M. (1999). Principles of environmental economics. Routledge.
- Kolstad, C. D. (2000). Environmental economics. Oxford University Press.
- Pearce, D. W., & Turner, R. K. (1991). Economics of natural resource use and the environment. Johns Hopkins University Press.
- Perman, R., Ma, Y., & McGilvray, J. (1996). Natural resource and environmental economics. Longman.
- Sankar, U. (Ed.). (2001). Environmental economics. Oxford University Press.
- Van den Bergh, J. C. J. M. (Ed.). (1999). Handbook of environmental and resource economics. Edward Elgar Publishing.

MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	Econometrics-II		
Course Code:	ECO-DSC-4.2	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To introduce advanced econometric techniques for analysing economic relationships.
- To develop understanding of simultaneous equations, dynamic models and time-series methods.
- To apply panel data techniques and advanced estimation methods.
- To develop skills in analysing economic and financial data using econometric software.
- To interpret econometric results for microeconomic and macroeconomic applications.

Course Outcomes

After completing this paper, students will be able to:

- Explain simultaneous equation models and address identification and estimation problems.
- Apply dynamic econometric models, including distributed-lag and autoregressive models.
- Analyse time-series data using stationarity, cointegration, ARIMA, VAR and causality techniques.
- Estimate and interpret fixed-effects and random-effects panel data models.
- Apply advanced econometric techniques to selected microeconomic, macroeconomic and financial problems using econometric software.

MODULES	DESCRIPTION	60 Hours
Module I	Simultaneous Equation Models and Identification	12
	Nature and examples of simultaneous equation models; simultaneous equation bias; identification problem; identification conditions; testing for simultaneity and exogeneity; methods of estimation; Indirect Least Squares; Two-Stage Least Squares; estimation of exactly and overidentified equations; interpretation of simultaneous equation estimates.	
Practicum	• Identify the demand and supply variables in a wheat market model. • Determine whether a given demand/supply equation is identified. • Estimate a simple simultaneous equation model using 2SLS and interpret the results.	
Module II	INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT	12
	Role of time and lags in economic relationships; reasons for lags; distributed-lag models; estimation of distributed-lag models; Koyck approach; adaptive expectations model; partial adjustment or stock adjustment model; autoregressive models; instrumental variable estimation; detection of autocorrelation in autoregressive models; Durbin's h-test.	
Practicum	• Examine the effect of past income on current consumption using a lagged model. • Estimate a simple model of the effect of past inflation on current inflation. • Test for autocorrelation in a dynamic model using the Durbin h-test	
Module III	DYNAMIC ECONOMETRIC MODELS	12

	Basic concepts of time-series analysis; stochastic processes; stationary and non-stationary time series; spurious regression; unit-root tests; approaches to economic forecasting; AR, MA and ARIMA models; Box–Jenkins methodology; cointegration Vector Autoregression (VAR); Error Correction Model (ECM); Granger causality test; Sims causality test; volatility in financial time series; ARCH and GARCH models.	
Practicum	• Check whether India's inflation data is stationary using a unit-root test. • Forecast India's inflation using a simple ARIMA model. • Examine the relationship between oil prices and inflation over time. • Study changes in stock-market volatility using an ARCH/GARCH model.	
Module IV	Application and Estimation of Production Functions	12
	Production Function: Functional Forms - Choice of functional form and specification testing; Econometric Specification Productivity and Technical Change; Empirical Applications - Manufacturing firms and industrial productivity, Agricultural production and farm efficiency Labour productivity across firms or industries, Capital investment and output growth, Technology adoption and productivity, Firm-level total factor productivity, Cross-country production and economic growth	
Practicum	• Data preparation and construction of output and input variables. • Estimation of a Cobb–Douglas production function using OLS. • Diagnostic testing for heteroskedasticity and specification problems. • Testing for constant returns to scale	
Module V	APPLICATIONS OF ECONOMETRICS	12
	Microeconomic Applications-Consumer demand analysis; specification and estimation of demand equations; Engel curves; estimation of systems of demand equations. Macroeconomic and Financial Applications- Demand for money; Phillips curve; exchange rates and purchasing power parity; term structure of interest rates; selected financial market applications. Econometric Software and Data Analysis-Importing and cleaning raw data; data transformation; descriptive and summary statistics; correlation analysis; model estimation; interpretation and reporting of software output.	
Practicum	• Analyse the relationship between household income and food expenditure using an Engel curve. • Examine the relationship between inflation and unemployment in India. • Study the relationship between exchange rates and inflation using Indian data. • Import a real economic dataset into SPSS/R/EViews/Stata and prepare summary statistics and graphs.	

Reading List

- Asteriou, D., & Hall, S. G. (2021). Applied econometrics (4th ed.). Bloomsbury Academic.
- Baltagi, B. H. (2021). Econometric analysis of panel data (6th ed.). Springer.
- Enders, W. (2015). Applied econometric time series (4th ed.). John Wiley & Sons.
- Greene, W. H. (2018). Econometric analysis (8th ed.). Pearson.
- Hansen, B. E. (2022). Econometrics. Princeton University Press.
- Stock, J. H., & Watson, M. W. (2020). Introduction to econometrics (4th ed.). Pearson.
- Verbeek, M. (2017). A guide to modern econometrics (5th ed.). John Wiley & Sons.
- Wooldridge, J. M. (2020). Introductory econometrics: A modern approach (7th ed.). Cengage Learning.
- Krishna, K. L. (Ed.). (1997). Econometric applications in India. Oxford University Press.
- Tsay, R. S. (2010). Analysis of financial time series (3rd ed.). John Wiley & Sons.

MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	Indian Economic Thought		
Course Code:	ECO-DSC-4.3	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To introduce students to the evolution of economic thought in India.
- To examine the economic ideas and contributions of major Indian thinkers.
- To analyse Indian perspectives on taxation, poverty, industrialisation, trade and development.
- To relate the ideas of Indian economic thinkers to contemporary economic issues.

Course Outcomes

After completing this paper, students will be able to:

- Explain the major features of economic thought in ancient and modern India.
- Analyse the economic ideas of Kautilya and major Indian economic thinkers.
- Examine Indian perspectives on poverty, public finance, industrialisation and economic development.
- Compare the economic perspectives of major Indian thinkers.
- Relate Indian economic ideas to contemporary economic and policy issues.

MODULES	DESCRIPTION	60 Hours
Module I	FOUNDATIONS OF INDIAN ECONOMIC THOUGHT	12
	Meaning, nature and evolution of Indian economic thought; economic ideas in ancient India; concepts of wealth, production, agriculture, trade and economic welfare; role of the State in economic activities. Buddhist and Mauryan Economic Ideas.	
Practicum	• Prepare a timeline showing the evolution of Indian economic thought. • Identify major economic activities and institutions in ancient India from selected sources.	
Module II	KAUTILYA AND ANCIENT INDIAN ECONOMIC THOUGHT	12
	Kautilya's <i>Arthashastra</i> ; economic functions of the State; wealth and economic welfare; taxation and public finance; land system and agriculture; trade and commerce; markets and pricing policy; regulation of economic activities; relevance of Kautilyan economic ideas to contemporary economic policy.	
Practicum	• Identify Kautilya's views on taxation, trade and price regulation from selected extracts. • Compare Kautilya's taxation ideas with one feature of the present Indian tax system. • Prepare a short presentation on the relevance of Kautilya's economic ideas today.	
Module III	ECONOMIC NATIONALISM AND COLONIAL INDIA	12
	Dadabhai Naoroji: Drain Theory and public finance; M. G. Ranade: protectionism and industrialisation; R. C. Dutt: poverty and colonial economic policies; Gopal Krishna Gokhale: public expenditure and financial administration; emergence of economic nationalism in colonial India.	

Practicum	• Prepare a comparison table of Naoroji, Ranade and R. C. Dutt on major economic issues. • Illustrate the Drain Theory using a simple diagram or flow chart. • Discuss the causes of Indian poverty under colonial rule using selected historical evidence.	
Module IV	INDUSTRIALISATION, GANDHIAN AND SOCIAL JUSTICE PERSPECTIVES	12
	M. Visvesvaraya: industrialisation, planning and economic development; M. K. Gandhi: Swadeshi, village Swaraj, machinery, trusteeship and decentralisation; Dr. B. R. Ambedkar: currency, monetary thought, economic development, labour and social justice. Mahalanobis: Planning, Industrialisation and Development Strategy	
Practicum	• Compare Visvesvaraya and Gandhi's views on industrialisation. • Prepare a short case study on Swadeshi and local production. • Present the relevance of Ambedkar's economic ideas on labour and social justice today.	
Module V	CONTEMPORARY RELEVANCE OF INDIAN ECONOMIC THOUGHT	12
	Comparative analysis of Indian economic thinkers; Indian perspectives on poverty, inequality, industrialisation, state intervention, self-reliance and decentralisation; Indian approaches to sustainable development, local production and economic justice; application of Indian economic thought to contemporary economic policy. Amartya Sen: Capability, Poverty and Human Development.	
Practicum	• Identify one current economic issue and relate it to the ideas of a selected Indian thinker. • Prepare a comparative chart of the economic ideas of Gandhi and Ambedkar. • Prepare a short presentation on the relevance of Indian economic thought to contemporary India.	

Reading List	
	• Dasgupta, A. K. (1993). A history of Indian economic thought. Routledge. • Ghosh, B., & Ghosh, R. (2023). Concise history of economic thought. Himalaya Publishing House. • Kautilya. (2013). King, governance, and law in ancient India: Kautilya's Arthashastra (P. Olivelle, Trans.). Oxford University Press. • Naoroji, D. (1901). Poverty and un-British rule in India. Swan Sonnenschein & Co. • Dutt, R. C. (1902). The economic history of India under early British rule. Kegan Paul, Trench, Trübner & Co. • Gandhi, M. K. (1927). The story of my experiments with truth. Navajivan Publishing House. • Ambedkar, B. R. (1923). The problem of the rupee: Its origin and its solution. P. S. King & Son. • Sen, A. (1999). Development as freedom. Oxford University Press.

MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	ADVANCED COMPUTER APPLICATIONS IN ECONOMICS – II		
Course Code:	ECO-DSC-4.4	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To introduce advanced Excel tools for economic data analysis and decision-making.
- To acquaint students with basic econometric techniques for analysing economic relationships.
- To familiarise students with diagnostic tests and interpretation of econometric results.
- To apply basic forecasting techniques to analyse trends in economic data.
- To equip students with skills for preparing and presenting empirical economic reports.

Course Outcomes

After completing this paper, students will be able to:

- Use advanced Excel tools to analyse economic data and solve simple decision-making problems.
- Apply basic econometric techniques to examine relationships between economic variables.
- Analyse econometric results using appropriate diagnostic tests.
- Interpret trends and forecasts using basic forecasting techniques and economic data
- Prepare and present empirical economic reports using tables, charts and analytical results.

MODULES	DESCRIPTION	60 Hours
Module I	ADVANCED EXCEL APPLICATIONS IN ECONOMICS	12
	Advanced spreadsheet functions; data sorting and filtering; Pivot Tables and Pivot Charts; What-If Analysis; Scenario Analysis; Solver; data validation; graphical presentation and interpretation of economic data.	
Practicum	• Analyse an economic dataset using Pivot Tables and charts. • Use What-If Analysis or Solver for a simple economic decision problem.	
Module II	BASIC ECONOMETRIC APPLICATIONS	12
	Introduction to econometric analysis; simple and multiple regression estimation of regression equations; interpretation of coefficients; goodness of fit; hypothesis testing; prediction using regression models.	
Practicum	• Estimate and interpret a simple regression using economic data. • Estimate a multiple regression model and interpret the results.	
Module III	ECONOMETRIC TESTS AND INTERPRETATION	12
	Residual analysis; multicollinearity; heteroscedasticity; autocorrelation; basic model diagnostics; interpretation of statistical and econometric output.	
Practicum	• Conduct basic diagnostic tests on a regression model. • Interpret econometric output and identify problems in the model.	
Module IV	ECONOMIC DATA ANALYSIS AND FORECASTING	12

	Time-series economic data; trends and patterns; moving averages; simple forecasting methods; forecasting accuracy; graphical presentation of economic trends; interpretation of forecasts.	
Practicum	- Analyse the trend of a selected economic indicator using secondary data. - Prepare a simple forecast of GDP, inflation, unemployment or another economic variable.	
Module V	ECONOMIC REPORT WRITING AND PRESENTATION	12
	Preparation of economic reports using MS Word; presentation of tables, charts and statistical results; citation and referencing; preparation of PowerPoint presentations; interpretation and communication of empirical findings; use of online economic databases.	
Practicum	- Prepare a short economic data-analysis report. - Present the findings using PowerPoint with tables, charts and statistical results.	

Reading List	
	- Chandan, J. S. (2014). Excel for economists. Himalaya Publishing House. - Dhanasekaran, K. (2010). Computer applications in economics. Vrinda Publications. - Rajaraman, V. (2014). Fundamentals of computers (5th ed.). Prentice Hall India Learning. - Sinha, P. K. (2004). Computer fundamentals. BPB Publications. - Cleff, T. (2019). Applied statistics and multivariate data analysis for business and economics: A beginner's guide. Springer. - Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2017). Basic econometrics (6th ed.). McGraw-Hill Education. - Wooldridge, J. M. (2020). Introductory econometrics: A modern approach (7th ed.). Cengage Learning. Web Resources / E-Resources - International Monetary Fund. (n.d.). IMF data. https://www.imf.org/en/Data - Microsoft. (n.d.). Microsoft Excel support. https://support.microsoft.com/excel - Ministry of Statistics and Programme Implementation. (n.d.). Statistics and data. Government of India. https://www.mospi.gov.in - Reserve Bank of India. (n.d.). Database on Indian Economy. https://data.rbi.org.in - World Bank. (n.d.). World Bank open data. https://data.worldbank.org

MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	Financial Economics		
Course Code:	ECO-DSC-4.5	No. of Credits	4
Contact hours	60 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To develop an understanding of the fundamental concepts and principles of financial economics and financial decision-making under uncertainty.
- To explain the functioning of financial markets, securities, corporate finance and investment decisions.
- To apply concepts of risk, return, portfolio diversification and financial derivatives in financial decision-making.
- To analyse the role of financial markets, institutions and international financial instruments in the economy.
- To develop skills in individual financial planning, investment selection, asset allocation and financial risk management.

Course Outcomes

After completing this paper, students will be able to:

- Explain the fundamental concepts and principles of financial economics, financial markets and financial decision-making.
- Apply financial concepts to evaluate securities, risk, return and portfolio diversification.
- Analyse corporate financing decisions, capital structure and the functioning of financial markets.
- Evaluate the use of derivatives, hedging strategies and financial instruments for managing financial risk.
- Develop basic individual financial plans incorporating investment goals, asset allocation, diversification and long-term financial needs.

MODULES	DESCRIPTION	60 Hours
Module I	FOUNDATIONS OF FINANCIAL ECONOMICS	12
	Financial Economics: Meaning, nature, scope and significance; financial decision-making under uncertainty; role of financial intermediaries. Time Value of Money: Present and future value; discounting and compounding; interest rates; Interest Rates and Financial Markets: Nominal and real interest rates; term structure; yield curves; spot and forward rates; duration. Risk and Return: Risk-return relationship; sources of financial risk; diversification; systematic and unsystematic risk. Financial Market Principles: Law of One Price; arbitrage; information and financial decisions; hedging and speculation.	
Practicum	• Calculate the present value and future value of a selected financial investment using different interest rates and time periods. • Analyse the risk and return of two selected financial assets using available market data. • Examine the effect of diversification on the risk and return of a two-asset portfolio.	
Module II	INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT	12

	Financial Securities: equity and debt securities; shares, bonds and debentures; money market instruments. Security Valuation: bond prices and yields; basic equity valuation. Portfolio Analysis: portfolio return and risk; diversification; systematic and unsystematic risk. Asset Pricing: CAPM, beta and Security Market Line; introduction to APT. Efficient Markets: Efficient Market Hypothesis and its implications. International Investment: international investment and portfolio diversification; foreign assets and investment risks; exchange-rate risk in international investments.	
Practicum	• Analyse the risk and return of two selected securities using five years of historical market data. • Construct a two-security portfolio and examine how diversification affects its overall risk and return. • Evaluate a selected stock using basic valuation indicators and assess whether its market performance is consistent with its risk level. • Analyse the risk and return of an international investment and examine the impact of exchange-rate changes.	
Module III	CORPORATE FINANCE AND FINANCIAL MARKETS	12
	Corporate Finance: objectives and sources of finance; equity and debt financing; cost of capital. Capital Structure: determinants of debt-equity choice; Modigliani–Miller approach. Corporate Securities: common and preference shares; bonds and debentures; ADRs and GDRs. Dividend Policy: meaning and determinants. Financial Markets: money and capital markets; primary and secondary markets; IPO, FPO, rights and bonus issues; stock exchanges and market indices. International Finance: international sources of corporate finance; international bonds and securities; international financial markets and institutions. Financial Regulation: role of SEBI and investor protection.	
Practicum	• Compare the capital structure of two selected listed companies and examine their use of debt and equity financing. • Analyse the performance of a selected stock-market index and identify major trends over a specified period. • Examine a recent IPO and analyse its pricing, issue structure and subsequent market performance. • Compare the sources of domestic and international finance available to a multinational company.	
Module IV	DERIVATIVES AND FINANCIAL RISK MANAGEMENT	12

	Derivative Markets: meaning, functions and types of derivatives. Forward and Futures Markets: forward and futures contracts; pricing and applications. Options Markets: call and put options; option payoffs and basic applications. Foreign Exchange and Currency Derivatives: foreign exchange market; spot and forward exchange rates; currency futures and options; currency swaps. Financial Risk Management: foreign exchange risk; hedging, speculation and arbitrage; applications of derivatives in risk management.	
Practicum	• Calculate the profit or loss from a selected futures contract under different market-price scenarios. • Analyse how a forward contract can be used to hedge the foreign exchange risk of an importing or exporting firm. • Compare the payoffs from call and put options under different exercise and market-price scenarios.	
Module V	INDIVIDUAL FINANCIAL PLANNING AND INVESTMENT MANAGEMENT	12
	Financial Planning: meaning, importance and objectives; identification of short-term, medium-term and long-term financial goals; budgeting and cash-flow management; saving and investment decisions. Investment Planning: investment alternatives; risk and return considerations; asset allocation and diversification; investment selection and monitoring. Personal Risk Management: emergency funds; insurance and protection needs; impact of inflation and interest rates on financial decisions. Long-Term Financial Planning: retirement planning; wealth creation and preservation; review and adjustment of financial plans.	
Practicum	• Prepare a financial plan for an individual based on income, expenditure, financial goals and investment objectives. • Design a diversified investment portfolio for an individual based on risk tolerance, return expectations and financial goals. • Analyse how inflation, interest rates and changing financial needs affect an individual's long-term financial plan.	
Reading List		
• Bodie, Z., Kane, A., & Marcus, A. J. (2021). <i>Investments</i>. McGraw-Hill Education. • Houthakker, H. S., & Williamson, P. J. (1996). <i>The economics of financial markets</i>. Oxford University Press. • Brealey, R. A., Myers, S. C., & Allen, F. (2020). <i>Principles of corporate finance</i>. McGraw-Hill Education. • Hull, J. C. (2022). <i>Options, futures, and other derivatives</i>. Pearson. • Ross, S. A., Westerfield, R. W., Jaffe, J., & Jordan, B. D. (2022). <i>Corporate finance</i>. McGraw-Hill Education. • Luenberger, D. G. (2014). <i>Investment science</i>. Oxford University Press. • Fabozzi, F. J. (2013). <i>Bond markets, analysis, and strategies</i>. Pearson. • Mishkin, F. S., & Eakins, S. G. (2021). <i>Financial markets and institutions</i>. Pearson. • Gitman, L. J., Joehnk, M. D., & Billingsley, R. (2014). <i>Personal financial planning</i>. Cengage Learning. • Kapoor, J. R., Dlabay, L. R., Hughes, R. J., & Hart, M. M. (2016). <i>Focus on personal finance</i>. McGraw-Hill Education. • Damodaran, A. (2012). <i>Investment valuation: Tools and techniques for determining the value of any asset</i>. Wiley. • Madura, J. (2021). <i>Financial markets and institutions</i>. Cengage Learning		

MA–ECONOMICS
4th SEMESTER

Project work / Internship	4.6.1	Project work / Internship	4
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MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	Budgetary Theory and Practice		
Course Code:	ECO – SBCS – 4.7.1	No. of Credits	2
Contact hours	30 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To understand the basic concepts and processes of budgeting.
- To develop practical skills in budget preparation and analysis.
- To apply spreadsheet tools for budget monitoring and forecasting.
- To develop skills in budgetary control and decision-making.

Course Outcomes

After completing this paper, students will be able to:

- Identify and classify budget receipts, expenditure and budget heads.
- Analyse budget estimates, revised estimates and actual expenditure.
- Prepare basic budgets and budget reports using spreadsheet tools.
- Evaluate budget variances and alternative budget scenarios.
- Formulate budget proposals based on resource constraints and performance objectives.

MODULES	DESCRIPTION	30 Hours
Module I	BUDGET PREPARATION AND DATA-BASED BUDGET ANALYSIS	15
	Purpose and structure of budgets; types of budgets; budget cycle; budget heads and classification; budget estimates, revised estimates and actual expenditure; incremental, programme, performance and zero-based approaches to budgeting.	
Practicum	• Identify and classify budget receipts and expenditure from a recent government or institutional budget. • Extract and organise budget data into an Excel/Google Sheets template. • Prepare a Budget Estimates–Revised Estimates–Actuals (BE–RE–Actual) analysis. • Calculate year-on-year changes and expenditure shares for selected budget heads. • Create tables, charts and graphs showing budget trends. • Prepare a sectoral budget analysis for education, health, agriculture or another selected sector. • Develop a one-page budget brief summarising major allocations, changes and priorities.	
Module II	BUDGETARY CONTROL, FORECASTING AND DECISION-MAKING	15

	Applied Budgeting: Revenue and expenditure estimation; departmental and organisational budgeting; resource allocation; programme and performance budgeting; budget prioritisation; budget constraints. Budgetary Control: Budget monitoring; budget variance analysis; favourable and adverse variances; causes of deviations; budget revision; corrective action; basic forecasting; scenario and sensitivity analysis.	
Practicum	• Prepare a simple annual budget for a hypothetical department/organisation using spreadsheet software. • Prepare a monthly expenditure plan and monitor actual spending against the plan. • Conduct a budget variance analysis and identify significant deviations. • Analyse the causes of budget overruns or under-utilisation and suggest corrective measures. • Prepare a revised budget following a change in revenue or expenditure assumptions. • Conduct what-if analysis for alternative budget allocations under a fixed resource constraint. • Prepare a simple performance/outcome budget for a selected programme. • Prepare and present a budget proposal with justification for resource allocation decisions.	

Reading List
• Bhatia, H. L. (2025). <i>Public finance</i> (33rd ed.). Vikas Publishing House. • Karnam, G. (Ed.). (2018). <i>Public budgeting in India: Principles and practices</i>. Springer. • Lee, R. D., Jr., Johnson, R. W., & Joyce, P. G. (2021). <i>Public budgeting systems</i> (10th ed.). Jones & Bartlett Learning. • Khan, A. (2024). <i>Fundamentals of public budgeting and finance</i>. Springer. • Government of India, Ministry of Finance. (2026). <i>Union budget 2026–27</i>. https://www.indiabudget.gov.in/ • Government of India, Ministry of Statistics and Programme Implementation. (n.d.). <i>Ministry of Statistics and Programme Implementation</i>. https://www.mospi.gov.in/

MA–ECONOMICS
4th SEMESTER

Program Name	MA in Economics	Semester	Fourth Semester
Course Title	Economics of Dairy Farming: A Practical Approach		
Course Code:	ECO – SBCS – 4.7.2	No. of Credits	2
Contact hours	30 Hours	Duration of SEA/Exam	3 Hrs
Formative Assessment Marks	30	Summative Assessment Marks	70

Course Objectives

- To understand the economic aspects of dairy farming.
- To analyse dairy farm costs, production and profitability.
- To apply budgeting, pricing and marketing tools in dairy farming.
- To develop skills in using data for dairy farm decision-making.

Course Outcomes

After completing this paper, students will be able to:

- Identify dairy farm inputs, costs and sources of revenue.
- Analyse production, productivity and profitability of dairy enterprises.
- Prepare basic dairy farm budgets using spreadsheet tools.
- Evaluate pricing, marketing and investment decisions using economic tools.
- Formulate economically viable strategies for dairy farm management.

MODULES	DESCRIPTION	30 Hours
Module I	DAIRY FARM ECONOMICS AND COST ANALYSIS	15
	Dairy Farming as an Economic Enterprise: Economics of dairy production; dairy farm as a production unit; factors of production; fixed and variable inputs; production decisions; scale of operation and economies of scale; productivity measures. Cost and Returns Analysis: Identification and classification of dairy farm costs; feed and fodder costs; labour; veterinary and breeding expenses; utilities and other operating costs; depreciation; investment in livestock and equipment; milk production and revenue; cost of milk production; gross and net returns; profitability and break-even analysis.	
Practicum	• Identify and classify budget receipts and expenditure from a recent government or institutional budget. • Extract and organise budget data into an Excel/Google Sheets template. • Prepare a Budget Estimates–Revised Estimates–Actuals (BE–RE–Actual) analysis. • Calculate year-on-year changes and expenditure shares for selected budget heads. • Create tables, charts and graphs showing budget trends. • Prepare a sectoral budget analysis for education, health, agriculture or another selected sector. • Develop a one-page budget brief summarising major allocations, changes and priorities.	

Module II	DAIRY FARM PLANNING AND MARKETING	15
	Dairy Production and Resource Efficiency: Milk productivity; feed–milk relationship; resource allocation; herd productivity; efficient utilisation of farm resources; basic enterprise planning. Milk Marketing and Pricing: Milk procurement and pricing; farm-gate and market prices; cooperative and private marketing channels; producer's share in consumer price; seasonal price variations; quality-based pricing; direct marketing and value addition. Dairy Farm Budgeting and Decision-Making: Enterprise budgeting; investment planning; cost-benefit analysis; financial feasibility; risk and uncertainty; sensitivity and scenario analysis; expansion decisions; preparation of a basic dairy business plan.	
Practicum	• Calculate and compare milk productivity per animal using farm data. • Analyse the relationship between feed expenditure and milk output. • Compare milk prices across different marketing channels. • Calculate the producer's share/margin under alternative marketing arrangements. • Prepare a monthly and annual dairy enterprise budget. • Conduct a cost-benefit analysis of expanding a dairy unit. • Perform what-if analysis for changes in feed prices, milk prices and milk yield. • Compare the economics of raw milk and a selected value-added dairy product. • Prepare a one-year business plan for a small dairy enterprise. • Present an evidence-based recommendation on whether a dairy enterprise should expand, maintain or modify its operations.	

Reading List	
	• Lekhi, R. K., & Singh, J. (2021). Agricultural economics: An Indian perspective. Kalyani Publishers. • Raju, V. T., & Rao, D. V. S. (2014). Economics of farm production and management. Oxford & IBH Publishing. • Singh, S. P. (2018). Agricultural economics. Daya Publishing House. • ICAR–National Dairy Research Institute. (n.d.). Dairy Economics, Statistics and Management. https://www.ndri.res.in/dairy-economics-statistics-and-management • Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India. (n.d.). Department of Animal Husbandry & Dairying. https://dahd.nic.in/ • National Dairy Development Board. (n.d.). National Dairy Development

	Board. https://www.nddb.coop/
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Model Question paperCBCS
Scheme

Economics

Paper Title

Instructions:

1. All parts A, B and C are Compulsory
2. Answer Either in English or Kannada

Time: 3 Hours

Maximum Marks: 70

Part A

- i. **Answer any two of the following in 60 Words. Each Question carries five Marks. 2X5=10**

1 Questions in English followed by Kannada translation2

3

4

Part B

- ii. **Answer any three of the following in 200 words. Each Question carries Ten Marks 3 X10 =30**

5

6

7

8

9

Part C

iii. Answer any two of the following in 500 words. Each Question
carries fifteen Marks 2X15=30

10

11

12

13

Model Question paperCBCS
Scheme
Economics
Paper: Soft core/Skill Based
1. All parts Compulsory
2. Answer Either in English or Kannada

Time: 2 Hours

Maximum Marks: 35

Part A

i. Answer any five of the following. Each Question carries Two Marks. 5X2=10

1 (Questions in English followed by Kannada translation)

2

3

4

5

6

7

8

Part B

ii. Answer any One of the following in 200 words. Each Question
carries Ten Marks 1 X10 =10

9

10

Part C

iii. Answer any one of the following in 500 words. Each Question
carries fifteen Marks 1X15=15

11

12

Note: The question paper pattern presented is provisional and subject to the approval of the competent authorities. It may be revised or modified in the event of the adoption of a common question paper pattern for the social sciences.