No. KU/Aca(S&T)/SSL-394A/2022-23/1056   Date: 2 3 SEP 2022

ಅಧಿಸೂಚನೆ

ವಿಷಯ: 2022–23ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳಿಗೆ 3 ಮತ್ತು 4ನೇ ಸೆಮೆಸ್ಟರ್ NEP-2020 ಮಾದರಿಯ ಪಠ್ಯಕ್ರಮವನ್ನು ಅಳವಡಿಸಿರುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: 1. ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿಗಳು(ವಿಶ್ವವಿದ್ಯಾಲಯ 1) ಉನ್ನತ ಶಿಕ್ಷಣ ಇಲಾಖೆ ಇವರ ಆದೇಶ ಸಂಖ್ಯೆ: ಇಡಿ 260 ಯುಎನ್ಇ 2019(ಭಾಗ–1), ದಿ:7.8.2021.

2. ವಿಜ್ಞಾನ & ತಂತ್ರಜ್ಞಾನ ನಿಖಾಯ ಸಭೆಯ ತರಾವುಗಳ ದಿನಾಂಕ: 06.09.2022

3. ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ಸಂ. 01, ದಿನಾಂಕ: 17.09.2022

4. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶ ದಿನಾಂಕ: 22-09-2022
_____

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಿಗಳನ್ವಯ ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶದ ಮೇರೆಗೆ, 2022–23ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಅನ್ವಯವಾಗುವಂತೆ, **ವಿಜ್ಞಾನ & ತಂತ್ರಜ್ಞಾನ** ನಿಖಾಯದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳ ರಾಷ್ಟ್ರೀಯ ಶಿಕ್ಷಣ ನೀತಿ (NEP)-2020 ರಂತೆ 3 ಮತ್ತು 4ನೇ ಸೆಮೆಸ್ಟರ್‌ಗಳಿಗಾಗಿ ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಅನುಮೋದಿತ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಪ್ರಕಟಪಡಿಸಿದ್ದು, ಸದರ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಕ.ವಿ.ವಿ. www.kud.ac.in ಅಂತರ್ಜಾಲದಿಂದ ಡೌನಲೋಡ ಮಾಡಿಕೊಳ್ಳಲು ಸೂಚಿಸುತ್ತಾ, ವಿದ್ಯಾರ್ಥಿಗಳು ಹಾಗೂ ಸಂಬಂಧಿಸಿದ ಎಲ್ಲ ಬೋಧಕರ ಗಮನಕ್ಕೆ ತಂದು ಅದರಂತೆ ಕಾರ್ಯಪ್ರವೃತ್ತರಾಗಲು ಕವಿವಿ ಅಧೀನದ / ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ ಸೂಚಿಸಲಾಗಿದೆ.

ಕುಲಸಚಿವರು.

ಅಡಕ: ಮೇಲಿನಂತೆ

ಗೆ,
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಎಲ್ಲ ಅಧೀನ ಹಾಗೂ ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ. (ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ ಹಾಗೂ ಮಿಂಚಂಚೆ ಮೂಲಕ ಬಿತ್ತರಿಸಲಾಗುವುದು)

ಪ್ರತಿ:

1. ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

2. ಕುಲಸಚಿವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

3. ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ) ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

4. ಅಧೀಕ್ಷಕರು, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ / ಗೌಪ್ಯ / ಜಿ.ಎ.ಡಿ. / ವಿದ್ಯಾಮಂಡಳ (ಪಿ.ಜಿ.ಪಿಎಚ್.ಡಿ) ವಿಭಾಗ, ಸಂಬಂಧಿಸಿದ ಕೋರ್ಸಗಳ ವಿಭಾಗಗಳು ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

5. ನಿರ್ದೇಶಕರು, ಕಾಲೇಜು ಅಭಿವೃದ್ಧಿ / ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

KARNATAK UNIVERSITY, DHARWAD

04- Year B.Sc Program (Minor)

SYLLABUS for III and IV Semester
Course: ECONOMICS (Minor)

DISCIPLINE SPECIFIC CORE COURSES (DSCC) and
OPEN ELECTIVE COURSES (OEC)

SEMESTER - III:
DSCC – 5: Factor pricing and Welfare Economics (Code: 033ECO011)

DSCC – 6: Basic Econometrics (Code: 033ECO012)

OEC- 3: Indian Economic Development and Policy (Code: 033ECO052)

SEMESTER IV:

DSCC – 7 : Monetary Economics (Code: 034ECO011)

DSCC - 8 : Time Series Econometrics (Code: 034ECO012)

OEC- 4 : Elementary Financial Economics (Code:004ECO052)

[Effective from 2022-23]

AS PER N E P - 2020

Karnatak University, Dharwad
Three Years B.Sc. Program in **Economics (Minor)**

Effective from 2022-23

Se m	Type of Course	Course / Paper Title (All theory papers)	Course Code	Paper	Instruction hour per week	Total hours of Syllabus / Sem	Duration of Exam	Formative Assessment (Internal) Marks	Summative Assessment (Sem End) Marks	Total Marks	Credit	NEP Model	NEP Level
III	DSCC 3	Factor pricing and Welfare Economics	033ECO011	C5	3 hrs	42	2 hrs	40	60	100	03	A1	Level-6
	DSCC 4	Basic Econometrics	033ECO012	C6	3 hrs	42	2 hrs	40	60	100	03	A1	Level-6
	OEC-3	Indian Economic Development and Policy	003ECO051	OEC-3	3 hrs	42	2 hrs	40	60	100	03	A1	Level-6
IV	DSCC 5	Monetary Economics	034ECO011	C7	3 hrs	42	2 hrs	40	60	100	03	A1	Level-6
	DSCC 6	Time Series Econometrics	034ECO012	C8	3 hrs	42	2 hrs	40	60	100	03	A1	Level-6
	OEC-4	Elementary Financial Economics	004ECO051	OEC-4	3 hrs	42	2 hrs	40	60	100	03	A1	Level-6

Name of Course (Subject): Economics (Minor)

Programme Specific Outcome (PSO):

On completion of the 03 years Degree in Economics (Minor) students will be able to:

PSO- 1 : Get an understanding of basic economic theory

PSO-2 : Learn the mathematical and statistical techniques necessary for a proper understanding of the discipline

PSO-3 : Get an introduction to real world economic issues and problems facing the country and the world

PSO-4 : Gain an understanding of proper policy responses to economic problems

PSO-5 : Get trained to collect primary data and learn sampling techniques

PSO-6 : Learn to use scientific empirical methods to arrive at conclusions about the validity of economic theories

PSO-7 : Get trained in the art of economic modeling

B.Sc.Semester – III

Subject: Economics (Minor)
Discipline Specific Core Course (DSCC)

The course Economics (Minor) in III semester has two papers (Paper I & II) for 06 credits: Each paper has 03 credits. Both the papers are compulsory. Details of the courses are as under.

Course No.-5 (Paper No. I)

Course No.	Course Code	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
C.5	033ECO011	DSCC	Theory	03	03	42 hrs	2hrs	40	60	100

Course No.5 (Paper-I):
Title of the Course (Paper-I): Factor pricing and Welfare Economics
(Code: 033ECO011)

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1: Understand the meaning of factor incomes and factor pricing.
CO2: Recognize basic supply and demand analysis of factors in perfect and imperfect market situations.
CO3: Understand the meaning of social welfare and means to maximize it.
CO4: Identify causes inhibiting attainment of maximum social welfare.
CO5: Explain the meaning and significance of general equilibrium
CO6: Recognize the causes of market failure.
CO7: Identify problems related to asymmetric information.
CO8: Analyse the need for government intervention in the economic activities

Syllabus- Course 5: Title- Factor pricing and Welfare Economics			42 Hrs
Unit 1	**Factor Pricing**		**18 hours**
	Chapter 1	Meaning and Significance of factor pricing - Functional (factor) and personal incomes Demand and Supply of Factors of Production in Perfect and Imperfect Competitive Markets.	3 hrs
	Chapter 2	Factor pricing in perfectly competitive markets - Marginal productivity theory of factor pricing	2 hrs
	Chapter 3	Factor pricing in imperfectly competitive markets - Monopsony power: Trade Unionsand wage determination - Bilateral monopoly	3 hrs

	Chapter 4	Theories of wages, rent, interest, and profits (Brief conceptual discussion): **Rent**: Ricardian Theory, Modern Theory, and Quasi Rent. **Wages**: Subsistence Theory, Wage-Fund Theory, Residual Claimant Theory, MarginalProductivity Theory and Modern Theory. **Interest**: Classical Theory - Keynesian Liquidity Preference Theory **Profit**: Dynamic Theory, Innovation Theory, Risk-bearing Theory and Uncertainty bearingTheory	10 hrs

Practicum:
- Collecting information on labour supply to understand the reasons for its backward bending
- Describing the graphs used in Chapter2
- Describing the graphs used in Chapter3
- Conducting class seminars about the above theories

Unit -2:	**General Equilibrium**		**06 hours**
	Chapter 5	Circular flow - Partial and general equilibrium - General equilibrium in production and exchange (Edgeworth box and Pareto optimality in consumption and production) - Walrasian general equilibrium analysis	6 hrs

Practicum:
➢ Reading and describing the graphs used

Unit -3:	**Welfare Economics**		**18hours**
	Chapter 6	Individual welfare and social welfare – Pigou's Welfare Economics - Social welfare function – Kaldor-Hicks Compensation criteria - Arrow's impossibility theorem - Theory of second best.	7hrs
	Chapter 7	Market failure – Meaning of Market Efficiency – Reasons for Market Failure -Externalities, public goods, property rights and Coase Theorem	4 hrs
	Chapter 8	Asymmetric information - Meaning - adverse selection, moral hazards, agencyproblems	3 hrs
	Chapter 9	Government Intervention – Need for Public Policy - Price ceiling, floor - Taxes, subsidies, Tariffs and quotas - production, import and export quotas – Economics Justification forWelfare Schemes	4 hrs

Practicum:
- Conducting surveys to understand the notion of welfare
- Collecting information on various sources of market failure
- Documenting the causes and consequences of adverse selection and moral hazards in the day-to-daylife of students
- Preparing a list of government programmes and giving justification for it from the point of view of Economics

Pedagogy: Lecture, Problem solving, seminar, presentation, activities, group discussion, field visit, project work, etc.

	References
	References
1	Ahuja, H.L. (2008): *Principles of Microeconomics*, S. Chand and Co., New Delhi
2	Mankiw, N. Gregory (2020). *Principles of Economics* (Ninth ed.). Boston, MA.
3	Jhingan, M.L. (2016): *Microeconomics*, Vrinda Publications, New Delhi
4	Koutsoyianis, A (1979): *Modern Microeconomics,* London, Macmillan
5	Omkarnath, G. (2012: *Economics: A Primer for India*, Orient Blackswan, Hyderabad
6	Salvatore, Dominick (2008) Microeconomics Theory and Applications, Oxford University Press,New York
7	Samuelson, Paul (2004): *Economics*, McGraw-Hill, New Delhi
8	Krishnaiahgouda H.R. (2020): Sookshma Arthashatsra (Bhaaga 1 & 2) Sapna Book House, Bengaluru
9	Somashekhar Ne. Thi., Sookshma Arthashatsra (Bhaaga 1 & 2) Sidhlingeshwara Prakashana, Kalburgi.
10	https://www.core-econ.org/the-economy/book/text/0-3-contents.html

Course No.	Course Code	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
C.6	033ECO012	DSCC	Theory	03	03	42 hrs	2hrs	40	60	100

Course No.6 (Paper-II):
Title of the Course (Paper-II): Basic Econometrics (Code: 033ECO012)

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1: The students will be able to carry out ordinary least square regressions
CO2: The students will be able to carry out multiple regressions, which are at the very foundation of quantitative economicanalysis.
CO3: The course is designed to make students familiar with more complex cases where the standardassumptions of the classic linear regression may not hold.

Syllabus- Course 6: Title- Basic Econometrics			42 Hrs
Unit 1	**Nature and Scope of Econometrics**		12 hours
	Chapter 1	**Introduction to Econometrics:** Meaning of Econometrics, Nature and scope of Econometrics- relationship with economics, mathematics and statistics Methodology of econometrics-Types of Econometrics	4
	Chapter 2	**Understanding Regression Model**: The Historical Origin of the Term Regression- Modern Interpretation of Regression- Scatter Diagram-Regression Line- Statistical versus Deterministic Relationships-Regression versus Causation- Regression versus Correlation- Terminologies	4
	Chapter 3	**Chapter:3 Two Variable Regression Analysis**: Basic Idea- Conditional Mean-Conditional Probability-Population Regression Function (PRF)-Meaning of Linearity-Stochastic Specification of PRF-Significance of Error Term-Sample Regression Function	4
Unit 2	**Regression Model: The Problem of Estimation**		14 hours
	Chapter 4	**Method of Estimation**: The Method of Ordinary Least Square-Point Estimator- Interval Estimator-Classical Linear Regression Model Assumptions- Properties of Least SquareEstimators: The Gauss-Markov Theorem	4

	Chapter 5	**Estimation and Validation:** Coefficient of Determination-Explain Sum of Squares-Residual Sum of Squares-Total Sum of Squares; Hypotheses Testing: precision of estimators- standard error-t-test- testing significance Individual Coefficients-Level of Significance	5
	Chapter 6	**Multiple Regression Analysis**: Three Variable Regression Model-Estimation- Interpretation- Validation: Individual Coefficients (t-test)- Overall Significance (F-test) Model Fit: R-Squared and Adjusted R-Squared	6
Unit 3		**Relaxing CLRM Assumptions and Advanced Regression Models**	**16 Hrs**
	Chapter 7	**The Problems in Regression Model: Multicollinearity**: Nature-Identification-Consequences-Detection- Remedial Measures; Heteroscedasticity: Nature-Identification- Consequences-Detection- Remedial Measures; Autocorrelation: Nature-Identification-Consequences-Detection- Remedial Measures	6
	Chapter 8	**Dummy Variable Regression Models:** Nature of Dummy Variables – Specificationof Dummy – Dummy Variable Trap – ANOVA – ANCOVA Models	6
	Chapter 9	**Simultaneous Regression Model:** Nature-simultaneous equation bias-Inconsistencyof OLS estimators –Structural and Reduced form equations – Identification Problem- Under – Exact – Over identification – Rules of identification- Order and Rank condition- Introduction to methods of estimation-ILS-2SLS-IV-LIMLE-SUR-3SLS-FIMLE	4

Pedagogy: Lecture, Problem solving, seminar, presentation, activities, group discussion, field visit, project work, etc.

References	
1	Studenmund A. H., "Using Econometrics: A practical Guide", Pearson Education, 7thEd,2017
2	Stock, J. H. and Watson, M. W., "Introduction to Econometrics", Pearson, 3rd Ed, 2015.
3	Brooks, C., "Introductory Econometrics for Finance", Cambridge University press, 4thEd,2019
4	Baum, C. E., "An Introduction to Modern Econometrics Using Stata", Stata Press, 2006.
5	Gujarati, D. N., "Econometrics by Example", Red Globe Press, 2nd Ed, 2014
6	Koutsoyiannis, A, Theory of Econometrics
7	Wooldridge, J. M., "Introductory Econometrics: An Introductory Approach", Southwestern,Cengage Learning, 5th Ed, 2013
8	Gujarati, D. N., Porter D.C., Gunasekar S., "Basic Econometrics", Mc Graw Hill, 5th Ed,2012
9	MarnoVerbeek, 2017,"A Guide to Modern Econometrics", John Wiley & Sons, Ltd, 5thEdition.
10	Enders, W., "Applied Econometric Time Series", Wiley 4th Edition, 2018.
11	Baltagi, B.H. "Econometric analysis of panel data", John Wiley and Sons, 5th Edition,2013
12	Pindyck, R.S. and Rubin Feld, D.L., "Econometric Models and Economic Forecasts" 4th Ed
13	Jeffrey M. Wooldridge Econometric Analysis of Cross Section and Panel Data, MIT Press

B.Sc. Semester – III

Subject: Economics (Minor)
Open Elective Course (OEC 3) : OEC
Course: Indian Economic Development and Policy (Code: 033ECO052)

Course No.	Course Code	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-3	003ECO052	OEC	Theory	03	03	42 hrs	2hrs	40	60	100

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Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1: understand and explain the sectoral composition in Indian economy

CO2: comprehend the agriculture system in Indian and identify the problems and measures to overcome

CO 3: appreciate the industrial structure, major policies, problems and financing relating to industrial development in India

CO 4: understand and explain the banking landscape of India and analyse the monetary policy of RBI

CO 5: explain the fiscal tools and analyse the Union Budget

Syllabus- Course OEC 3: Title- **Indian Economic Development and Policy**			42 Hrs
Unit 1	**Agriculture in India**		**14 hours**
	Chapter 1	Features of Indian Economy; Correlating Sectoral composition of National Income of India with occupational distribution of population in India	3hrs

	Chapter 2	Agricutlure: Cropping pattern and production
		  a) Land use
		  b) Cropping pattern: Major crops under foodgrains and non-foodgrains
		  c) Agriculture production: trends; agricultural productivity- causes and measures
			5hrs

	Chapter 3	Agricutlure: credit and marketing
		  a) Agriculture credit: Sources
		  b) Agriculture marketing: features/defects and measures
		  c) Recent agricultural government schemes
			6hrs

Practicum: • Field survey: Conduct a field survey and collect data to understand the different sources of agricultural credit; prepare a report • Mini project: Visit a nearby APMC and observe the following:			

		1) Auction sale 2) Grading 3) Storage 4) Market functionaries 5) Commodity arrivals Prepare a report based on your visit. Can you relate your on field experience with the theoretical knowledge about agricultural marketing?	
Unit 2	**Industry and service sectors**		**14 hours**
	Chapter 4	Industrial policy of 1956 and 1991	4hrs
	Chapter 5	MSME: concept, role, problems and measures; Snapshot of Large scale industries in India Industrial finance: sources	8hrs
	Chapter 6	Service sector: Classification in national income of India Trends in composition of service sector	2hrs
Practicum: • Assignment : Problems and measures of MSMEs • Seminar: trends and composition of service sector			
Unit 3	**Indian banking and Public finance**		**14 hours**

	Chapter 7	Indian Banking:
		   a) Structure of Indian Banking System
		   b) Functions of Commercial banks
		   c) RBI: organization and functions
		   d) Monetary Policy of RBI : objectives and instruments
		   e) Major reforms in Banking sector
			6hrs

	Chapter 8	Indian Public Finance:
		   a) Sources and trends of Central government revenue
		   b) Items of public expenditure of central government and trends therein
		   c) Public debt in India: Trends and debt servicing
		   d) Concept of deficits and trends
		   e) Recent Union Budget : Structure and highlights
			8hrs

Practicum: • Group Discussion: Recent Union Budget • Seminar on instruments of monetary policy			

Pedagogy: Lecture, Problem solving, seminar, presentation, activities, group discussion, field visit, project work, etc.

	References : (Recent editions)
1	Dutt Ruddar and K.P.M Sundaram: Indian Economy
2	Mishra S.K & V.K Puri (2001) "Indian Economy and –Its development experience"
3	Kapila Uma: Indian Economy: Policies and Performances
4	Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
5	Jalan, B. (1996), India's Economic Policy- Preparing for the Twenty First Century, Viking, New Delhi
6	Ramesh Singh : (2021) Indian Economy , McGraw Hill, New Delhi
7	Krishnamurthy H R (2022): Bharatada Arthika Vyvasthe (Kannada medium), Sapna publications, Bengaluru
8	• Recent Economic survey and Budget documents visit: https://www.indiabudget.gov.in/ • For recent schemes in agriculture visit : https://agricoop.nic.in/en/ministry-major-schemes?page=1 • For cropping pattern and agricultural production visit: https://www.agricensus.com/ • For monetary policy of RBI visit : https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=54148

B.Sc. Semester – IV

Subject: Economics (Minor)
Discipline Specific Core Course (DSCC)

The course B Sc Economics (Minor) in IV semester has two papers (Paper I & II) for 06 credits: Each paper has 03 credits. Both the papers are compulsory. Details of the courses are as under.

Course No.-7 (Paper No. I)

Course No.	Course Code	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
C.7	034ECO011	DSCC	Theory	03	03	42 hrs	2hrs	40	60	100

Course No.7 (Paper-I):
Title of the Course (Paper-I): Monetary Economics (Code: 034ECO011)

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1: Understand the operation of the overall monetary economy and money

CO2: What constitutes supply and demand for money as well as theories and approaches.

CO3: Monetary policy and inflation and its impact on welfare

Syllabus- Course 7: Title- Monetary Economics			**42 Hrs**
Unit 1	**Introduction to money and monetary economics**		14 hrs
	Chapter 1	**Introduction:** ➢ Theoretical and empirical definition of money ➢ Role and Functions of Money ➢ Paper currency – system of Note issue ➢ weighted monetary aggregates	4
	Chapter 2	**Money demand and supply** ➢ Concepts of supply and demand for money ➢ Microeconomic determinants of the demand for money and macroeconomic moneydemand functions ➢ Financial intermediaries, banks, and money creation ➢ Money supply and price level ➢ Determinants of money supply ➢ High powered money ➢ Money multiplier ➢ The reserve ratio and deposit multiplier	10
Unit 2	**Theories and approaches of demand for and supply of money**		14 hrs
	Chapter 3	**Theories of demand for money and supply**: ➢ Tobin's portfolio selection and Baumol's transaction demand for money ➢ Friedman's restatement of quantity theory of money ➢ Endogenous money supply, Kaldor's theory	8

	Chapter 4	**Approaches - demand for money and supply:** ➢ Laidler's buffer stock approach ➢ Gurley-Shaw's approach ➢ Behavioural approach of money supply		6
Unit 3	**Inflation and Monetary Policy**			14 hrs
	Chapter 5	**Inflation:** ➢ Inflation – Types – causes – effects and Remedies ➢ Monetarist view on Inflation-Concept of core inflation ➢ measures of inflation (CPI, WPI, Core, Headline, GDP deflator) ➢ Monetary Targeting-Inflation targeting ➢ Interest rate targeting-p-star model ➢ Rule vs. discretion in the conduct of monetary policy		6
	Chapter 6	**The welfare effects of inflation and monetary policy:** ➢ Neutrality and super neutrality of money, welfare costs, and the inflation tax ➢ The Classical model, flexible price economies and monetary policy ➢ Rational expectations, representative agents and real business cycle theory. MIU, CIA,Lucas supply functions and the effects of monetary policy. ➢ The new Keynesian approach to monetary policy — nominal rigidities: ➢ New Keynesian Phillips curve, IS Curve, Taylor rules, financial accelerator models.		8

Pedagogy: Lecture, Problem solving, seminar, presentation, activities, group discussion, field visit, project work, etc.

References	
1	Chandler, L. V. and S. M. Goldfeld, The Economics of Money and Banking, Harper &
2	Row, New York, 1977.
3	M.L.Seth - Money Banking and International Trade ,Tata McGraw Hill Company Ltd.,
4	New Delhi, 1999.
5	Gupta, S B, Monetary Economics Institutions and policy, S.Chand& Co., New Dehi,
6	1995.
7	Mithani.D - Money Banking and International Trade.
8	Patinkin, Money, Interest and Prices, Harper and Row, New York.
9	Khan M. Y., Indian Financial System, Tata McGraw Hill, New Delhi, 1996.
10	Somashekar Ne. Thi., Principles of Macroeconomics, Scientific International Pvt. Ltd., PublicationsNew Delhi
11	Somashekar Ne. Thi., ಸ್ಥಮಗಿತ ಅರ್ಥಶಂಸ್ತ್ರ, Siddalingeshwara prakashana, Kalburgi.
12	H. R. Krishnaiah Gowda ಸ್ಥಮಗಿತ ಅರ್ಥಶಂಸ್ತ್ರ, Mysore book house prakashna, Mysore.

B.Sc. Semester – IV

Subject: Economics (Minor)
Discipline Specific Core Course (DSCC)

Course No.-8 (Paper No. II)

Course No.	Course Code	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
C.8	034ECO012	DSCC	Theory	03	03	42 hrs	2hrs	40	60	100

Course No.8 (Paper-II):
Title of the Course (Paper-II): Time Series Econometrics (Code: 034ECO012)

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1: Deal with comprehensive set of tools and techniques for analysing various forms of univariate andmultivariate time series

CO2: Understand the current literature in applied time series.

CO3: Use statistical packages like STATA, E-views, SPSS and the like

Syllabus- Course 8: Title- Time Series Econometrics			42 Hrs
Unit 1	**Dynamic Econometric Models - Autoregressive and Distributed Lag Models**		14 hrs
	Chapter 1	**Role of lag in economics** – Reasons for lag –distributed lag model – autoregressive model- Estimation of distributed lag models – Ad Hoc estimation – Koyck approach –mean lag-median lag	4
	Chapter 2	**Rationalization of Koyck model** – Adaptive expectation model- stock adjustment or partial adjustment model –Combination of Adaptive expectation and partial adjustmentmodels.	5
	Chapter 3	**Estimation of Autoregressive models**: Method of instrumental variables (IV)- detection of autocorrelation in autoregressive models – Durbin h test- The Almon Approach to Distributed-Lag Models: The Almon or Polynomial Distributed Lag (PDL)	5
Unit 2	**Time Series Econometrics**		**14 hrs**
	Chapter 4	**Basic Concepts of Time Series:** Stylised characteristics of time series data- Basic concepts of time series model- stochastic process-, Stationary Process, Non-stationary process- random walk model – random walk without drift- random walk with drift –random walk around stochastic trend	4

	Chapter 5	**Unit Root Tests:** spurious regression – non-stationarity or unit root tests – Graphs – Autocorrelation function (ACF)-partial autocorrelation function (PACF) The Augmented Dickey–Fuller (ADF) Test - The Phillips–Perron (PP) Unit Root Tests - A Critique of the UnitRoot Tests- Transforming Non stationary Time Series –difference stationary –Trend stationary	4
	Chapter 6	**Cointegration: Meaning** – Regression of unit root time series – Testing forCointegration – Engle-Granger two step test – Johansen test: maximum eigenvalue test Trace test-Phillips – Ouliaris three step test-Error correction mechanism	6
Unit 3	**Time Series Econometrics: Forecasting**		**14 hrs**
	Chapter 7	**Approaches to Economic Forecasting**: exponential smoothing – Single equationregression models – Simultaneous equation regression models – ARIMA models	2
	Chapter 8	**AR, MA, and ARMA and ARIMA Models:** Autoregressive models (AR)- Movingaverage models(MA)-Autoregressive moving average models(ARMA)- Autoregressive integrated moving average models (ARIMA)	5
	Chapter 9	**Box-Jenkins (BJ) Methodology**: Steps involved in BJ method – Identification: Autocorrelation function (ACF)-partial autocorrelation function (PACF) –Estimation-Diagnostic checking- Forecasting	7

Pedagogy: Lecture, Problem solving, seminar, presentation, activities, group discussion, field visit, project work, etc.

References	
1	Gujarati, D. N., Porter D.C., Gunasekar S., "Basic Econometrics", Mc Graw Hill, 5th Ed, 2012
2	Marno Verbeek, 2017,"A Guide to Modern Econometrics", John Wiley & Sons, Ltd, 5th Edition.
3	Enders, W., "Applied Econometric Time Series", Wiley 4th Edition, 2018
4	Baltagi, B.H. "Econometric analysis of panel data", John Wiley and Sons, 5th Edition,2013
5	Koutsoyiannis, A, Theory of Econometrics
6	Brooks, C., "Introductory Econometrics for Finance", Cambridge Universitypress, 4th
7	Edition, 2019
8	Baltagi, B.H. "Econometric analysis of panel data", John Wiley and Sons, 5thEdition,2013
9	Pindyck, R.S. and Rubinfeld, D.L., "Econometric Models and EconomicForecasts" 4th Ed
10	Jeffrey M. Wooldridge Econometric Analysis of Cross Section and PanelData, MIT Press
11	Wooldridge, J. M., "Introductory Econometrics: An Introductory Approach",SouthWestern, CengageLearning, 5th Edition, 2013

B.Sc. Semester – IV

Subject: Economics (Minor)
Open Elective Course (OEC4) : OEC for other students
Course: Elementary Financial Economics (Code:004ECO052)

Course No.	Course Code	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-4	004ECO052	OEC	Theory	03	03	42 hrs	2hrs	40	60	100

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Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO1: Comprehend the financial market structure in general and specifically in India

CO2: Understand the development of financial system in India

CO3: Differentiate money and capital market and appreciate the instruments and intermediaries traded in both markets

CO4: Identify the players in both markets and relate to real world markets

CO5: Comprehend the determination of interest rate by banks in India and its evolution

CO6: Appreciate the regulatory mechanism of both markets and role of RBI and SEBI

Syllabus- Course OEC 4: Title- **Elementary Financial Economics**			**42 Hrs**
Unit 1	Financial System and Money Market		**14 hours**
	Chapter 1	Financial System: • Meaning, Components and Role • Evolution of Indian Financial System • Reforms in financial sector: Objectives and major reforms: Narasimham committee recommendations.	7hrs
	Chapter 2	Money Market: Objectives; Institutions; Composition/structure; Features/Defects; Reforms	7hrs
Practicum:			
• Write an assignment on evolution of Indian Financial System			
• Seminar: Economic growth and Financial sector			
Unit 2	Banking		**14 hours**
	Chapter 4	Commercial Banks: • Growth, Role, types and Functions • Balance Sheet of Commercial Bank • credit creation, credit multiplier and limitations • Portfolio Management	7hrs
	Chapter 5	Interest Rate structure and trends in India; Interest Rate policy in India (administered and deregulated regimes)	4hrs

	Chapter 6	RBI: Organization and Management; Control of Credit	3hrs

Practicum:

• Visit a commercial bank and collect information on how an instrument of money market works

• Group Discussion: Role of RBI in controlling credit/inflation

Unit 3	**Capital Market**		**14 hours**
	Chapter 7	Capital Market: Meaning and functions; Institutions Instruments	5hrs
	Chapter 8	Primary and Secondary market: Meaning, features, functions and differences	3hrs
	Chapter 9	Stock Exchange: Meaning and functions Dealers in stock exchange SEBI: Meaning, Organisation, objectives and functions	5hrs

Practicum:

• Visit a stock trading company in your vicinity and prepare a report on its functioning

• OR

• Make a list of companies that are traded in BSE

• Also visit a bank or financial company and collect information on investing in mutual funds; prepare a report.

Pedagogy: Lecture, Problem solving, seminar, presentation, activities, group discussion, field visit, project work, etc.

References : (Recent editions)	
1	L M Bhole: Financial Institutions and Markets, Tata Mc Graw Hill
2	Vasantha Desai: The Indian Financial System, HPH
3	Meir Kohn: Financial Institutions and Markets, Tata McGraw Hill
4	M Y Khan: Indian Financial System, TMH
5	P N Varshney & D K Mittal: Indian Financial System, Sulthan Chand & Sons
6	K. Venkatramana, Indian Financial System, SHBP.
7	G B Baligar: Bharatiya Hanakasina Vyavasthe (Kannada)
8	H. R. Krishnaiah Gowda :Proudha Hanakasina Arthashastra (Kannada)
9	Khan M. Y., Indian Financial System, Tata McGraw Hill, New Delhi, 1996.
10	Datt and Mahajan, Indian Economy, S Chand, New Delhi, 2021
11	M.L.Seth - Money Banking and International Trade ,Tata McGraw Hill Company Ltd., New Delhi, 1999.
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13	Paul R R, Monetary Economics, Kalyani, New Delhi, 2013

Scheme of Formative assessment for DSCC/OEC (IA):40% weightage for total marks

Type of Assessment	Weight age	Duration	Commencement
Written Test -1	10%	1 hour	8th week
Written Test -2	10%	1 hour	12^{h} week
Seminar	10%	10 minutes	------
Case study / Assignment / Field work / Project work/ Activity	10%	------	------
Total	40% of the maximum marks allotted for the paper		

Faculty of Science
03 – Years B.Sc.(Basic Degree) programme

GENERAL PATTERN OF THEORY QUESTION PAPER FOR DSCC/ OEC
(60 marks for semester end Examination with 2 hrs duration)

Part-A

1. Question number 1-06 carries 2 marks each. Answer any 05 questions   :10marks

Part-B

2. Question number 07- 11 carries 05Marks each. Answer any 04 questions   : 20 marks

Part-C

3.Question number 12-15 carries 10 Marks each. Answer any 03 questions   : 30 marks

(Minimum 1 question from each unit and 10 marks question may have sub questions for 7+3 or 6+4 or 5+5 if necessary)

Total: 60 Marks

Note: Proportionate weightage shall be given to each unit based on number of hours prescribed.

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