



**KARNATAK UNIVERSITY, DHARWAD
ACADEMIC (S&T) SECTION**

**ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
ವಿದ್ಯಾವಿಷಯಕ (ಎಸ್&ಟಿ) ವಿಭಾಗ**



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'A' Grade 2014

website: kud.ac.in

No. KU/Aca(S&T)/JS/MGJ(Gen)/2023-24/59

Date: 04/09/2023

ಅಧಿಸೂಚನೆ

ವಿಷಯ: 2023-24ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕ ಪದವಿಗಳಿಗೆ 5 ಮತ್ತು 6ನೇ ಸೆಮೆಸ್ಟರ್

NEP-2020 ಪಠ್ಯಕ್ರಮವನ್ನು ಅಳವಡಿಸಿರುವ ಕುರಿತು.

- ಉಲ್ಲೇಖ: 1. ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿಗಳು(ವಿಶ್ವವಿದ್ಯಾಲಯ 1) ಉನ್ನತ ಶಿಕ್ಷಣ ಇಲಾಖೆ ಇವರ
ಆದೇಶ ಸಂಖ್ಯೆ: ಇಡಿ 104 ಯುಎನ್ಇ 2023, ದಿ: 20.07.2023.
2. ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ಸಂಖ್ಯೆ: 2 ರಿಂದ 7, ದಿ: 31.08.2023.
3. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶ ದಿನಾಂಕ: 04/09/2023

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಗಳನ್ವಯ ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶದ ಮೇರೆಗೆ, 2023-24ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಅನ್ವಯವಾಗುವಂತೆ, ಎಲ್ಲ B.A./ BPA (Music) /BVA / BTM / BSW/ B.Sc./B.Sc. Pulp & Paper Science/ B.Sc. (H.M)/ BCA/ B.A.S.L.P./ B.Com/ B.Com (CS) / BBA & BA ILRD ಸ್ನಾತಕ ಪದವಿಗಳ 5 ಮತ್ತು 6ನೇ ಸೆಮೆಸ್ಟರ್‌ಗಳಿಗೆ NEP-2020ರ ಮುಂದುವರೆದ ಭಾಗವಾಗಿ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಅನುಮೋದಿತ ಕೋರ್ಸಿನ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ www.kud.ac.in ದಲ್ಲಿ ಭಿತ್ತರಿಸಲಾಗಿದೆ. ಸದರ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲದಿಂದ ಡೌನ್‌ಲೋಡ್ ಮಾಡಿಕೊಳ್ಳಲು ಸೂಚಿಸುತ್ತ ವಿದ್ಯಾರ್ಥಿಗಳ ಹಾಗೂ ಸಂಬಂಧಿಸಿದ ಎಲ್ಲ ಬೋಧಕರ ಗಮನಕ್ಕೆ ತಂದು ಅದರಂತೆ ಕಾರ್ಯಪ್ರವೃತ್ತರಾಗಲು ಕ.ವಿ.ವಿ. ಅಧೀನದ/ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ ಸೂಚಿಸಲಾಗಿದೆ.

ಅಡಕ: ಮೇಲಿನಂತೆ

(Signature)
ಕುಲಸಚಿವರು.

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. / ವಿದ್ಯಾಂಡಳ (ಪಿ.ಜಿ.ಪಿ.ಎಚ್.ಡಿ) ವಿಭಾಗ, ಸಂಬಂಧಿಸಿದ ಕೋರ್ಸುಗಳ ವಿಭಾಗಗಳು ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
5. ನಿರ್ದೇಶಕರು, ಕಾಲೇಜು ಅಭಿವೃದ್ಧಿ / ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.



KARNATAK UNIVERSITY, DHARWAD

B.Sc. in ECONOMICS

SYLLABUS

With Effect from 2023-24

DISCIPLINE SPECIFIC CORE COURSE (DSCC) FOR SEM V & VI,

SKILL ENHANCEMENT COURSE (SEC) FOR SEM V SEM

AS PER NEP-2020

Karnatak University, Dharwad

B.Sc. in **ECONOMICS**

Effective from 2023-24

Sem.	Type of Course	Theory/ Practical	Course Code	Course Title	Instructor hour/ week	Total hours / sem	Duration of Exam	Marks			Credits
								Formative	Summative	Total	
V	DSCC-9	Theory	035 ECO 011	Introduction to R Software	04hrs	56	02 hrs	40	60	100	04
	DSCC-10	Theory	035 ECO 012	Public Economics	04hrs	56	02 hrs	40	60	100	04
	DSCC-11	Theory	035 ECO 013	Development Economics	04hrs	56	02 hrs	40	60	100	04
	SEC-3	Theory	035 ECO 061	Economics of Artificial Intelligence	02hrs	30	01 hr	20	30	50	02
	Total										14
VI	DSCC-12	Theory	036 ECO 011	Actuarial Economics	04hrs	56	02 hrs	40	60	100	04
	DSCC-13	Theory	036 ECO 012	Indian Public Finance	04hrs	56	02 hrs	40	60	100	04
	DSCC-14	Theory	036 ECO 013	International Economics	04hrs	56	02 hrs	40	60	100	04
	Internship-1		036 ECO 091	For Details refer Modified Curriculum Framework for UG Programme on Web: http://kshec.karnataka.gov.in Page 51 to 54.	02 hrs	30	01hr	50	0	50	02
	Total										14

B.Sc. Semester–V

Discipline Specific Course (DSCC) -9

Program Name	B.Sc. in Economics	Semester	Fifth Semester
Course Title	Introduction to R Software		
Course Code:	035ECO011	No. of Credits	4
Contact hours	56 Hours	Duration of SEA/Exam	2 Hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Outcome: After the successful completion of the course, the student will be able to:

- CO1. Enables to do programming in R
- CO2. Students can able to gain skill in analyzing the data.
- CO3. To acquaint with the recent advances in R

Modules	Description	56 Hours
Module I	Introduction to R	10
	Installation Procedure - Help - Demo Examples - Packages and Libraries - Command Line - Data Editor - R Studio.	
Practicum	Develop an R script and execute it	
Module II	Basics in Calculations	15
	Basics and R as a Calculator - Multiplication and Division - Addition and Subtraction Built in Functions and Assignments - Matrix Operations - Creation of a Matrix - Properties - Transpose - Multiplication - Addition and Subtraction - Submatrices - Inverse.	
Practicum	Solve a problem on Submatrices - Inverse	
Module III	Missing Data and Logical Operations	15
	Missing Data - Logical Operations and Comparisons - Control Statements - Loops - Conditional Execution - Sequences - Repeats, Sorting and Ordering - Lists - Vector Indexing - Data Management with Strings - Display and Formatting.	
Practicum	Group Discussion on Missing Data and Logical Operations	
Module IV	Descriptive Statistics and Functions in R	16
	Frequencies - Absolute and Relative, Partition Values - Quartile - Decile - Percentile, Graphics - Bar Plots - Pie Chart - Histogram - Scatter Plot, Descriptive Statistics - Mean - Median - Mode - Variability - Variance - Range - Standard Deviation, Statistical Distribution - Skewness - Kurtosis, Statistical Functions - Correlation - Regression - Regression Line - Goodness of Fit.	
Practicum	Presentation on Descriptive Statistics and Functions in R	

References	
1	Alain F. Zuur, Elena N. Ieno, Erik H.W.G. Meesters (2009), A Beginner's Guide to R (Use R), Springer Cham Publications.
2	Gareth James, Daniela Witten, Trevor Hastie, and Robert Tibshirani, (2013), Introduction to Statistical Learning with Applications in R, Springer Cham Publications.
3	Christian Heumann, Michael Schomaker, Shalabh (2017), Introduction to Statistics and Data Analysis - With Exercises, Solutions and Applications in R, Springer Cham Publications.
4	McKinney, W. (2012). Python for data analysis: Data wrangling with Pandas, NumPy, and IPython, O'Reilly Media, Inc.

Formative Assessment for Theory	
Assessment Occasion /type	Marks
Internal Assessment Test 1	10
Internal Assessment Test 2	10
Quiz/Assignment/ Small Project	10
Seminar	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–V

Discipline Specific Course (DSCC) -10

Program Name	B.Sc. in Economics	Semester	Fifth Semester
Course Title	Public Economics		
Course Code:	035ECO012	No. of Credits	4
Contact hours	56 Hours	Duration of SEA/Exam	2 hours
Formative Assessment Marks	40	Summative Assessment Marks	60

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

CO1. Understand introductory Public Finance concepts.

CO2. Study the causes of market failure and corrective actions

CO3. Understand the impact, incidence and shifting of tax

CO4. Study the Economic Effects of tax on production, distribution and other effects

CO5. Enable the students to know the Principles and Effects of Public Expenditure

CO6. Understand the Economic and functional classification of the budget; Balanced and Unbalanced budget

CO7. Understand the Burden of Public debt and know the Classical/ Ricardian views, Keynesian and post-Keynesian views

CO8. To acquaint with the advantages and disadvantages of Deficit Financing,

MODULES	DESCRIPTION	56 Hours
Module I	Introduction to Public Economics	14
	Public Economics: Meaning, definitions, Scope and Significance, Public Finance and Private Finance: Meaning, and Distinction; Public good and private good: Meaning, Characteristics, and Distinction, Principle of Maximum Social Advantage, Market Failures: Meaning, causes-role of externalities; Market failure and role of government; Corrective actions.	
Practicum	Group Discussions on Public Finance and private finance; public good and private good Assignment on Market failure and government intervention	
Module II	Public Revenue and Public Expenditure	16
	Meaning and sources of revenue; Taxation –Cannons of taxation, Characteristics of a sound tax system, Impact, Incidence- Division of Tax burden, Shifting of tax, Economic Effects of tax on production, distribution and other effects, Progressive and Regressive, Proportional Tax, Direct and Indirect Taxes –Merits and Demerits, Taxable Capacity: Meaning and determinants.Public Expenditure; Meaning, classification, principles, Types & Cannons, Reasons for the growth of public	

	expenditure, Wagner's law of increasing state activities, Peacock-Wiseman hypotheses, Effects of public expenditure: Production, Distribution & Other effects	
Practicum	Mini-project/study to ascertain the impact of GST on retailers/wholesalers in your vicinity A case study on the taxable capacity of the different sections of society in the vicinity Assignment on Effects of public expenditure: Production, Distribution & Other Effects	
Module III	Public Debt	12
	Public Debt: Meaning, Purpose, Types & Effects; Sources of Public Borrowing; Burden of Public Debt -Classical/ Ricardian views, Keynesian and post-Keynesian views; Intergenerational equity of public debt; Causes of the Rise in Public Debt; Methods of debt redemption; Debt management.	
Practicum	Studying the burden of public debt through a project/ case study Assignment on Debt Management	
Module IV	Public Budget, Fiscal Policy and Fiscal Deficit	14
	Budget: Meaning, process & Types of budget, Economic and functional classification of the budget; Balanced and unbalanced budget, Types of Budget Deficits; Fiscal Policy: Meaning, objectives & Tools; Fiscal deficit: Meaning, Computation, Deficit Financing: Meaning, Advantages and Disadvantages	
Practicum:	Calculation of various types of budget deficit using the budget data Group discussion on the advantages and disadvantages of deficit financing	

References

1	Lekhi R.K., Joginder Singh (2018) Public Finance, Kalyani publication, New Delhi
2	Tyagi B.P. (2014) Public Finance published by Jaya Prakash Nath and CO, Meerut
3	Hindriks J. and G. Myles (2006): Intermediate Public Economics, MIT Press.
4	Bhatia H L (2018): Public Finance. Vikas Publishing House.
5	Musgrave, R.A. (1989), The Theory of Public Finance, McGraw Hill
6	Musgrave, R.A. and P.B. Musgrave (1989), Public Finance in Theory and Practice, McGrawHill,

Formative Assessment for Theory	
Assessment Occasion /type	Marks
Internal Assessment Test 1	10
Internal Assessment Test 2	10
Quiz/Assignment/ Small Project	10
Seminar	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–V

Discipline Specific Course (DSCC) -11

Program Name	B.Sc. in Economics	Semester	Fifth Semester
Course Title	Development Economics		
Course Code:	035ECO013	No. of Credits	4
Contact hours	56 Hours	Duration of SEA/Exam	2 Hours
Formative Assessment Marks	40	Summative Assessment Marks	60

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

- CO1. Understand the basic concepts and measurements of Development.
- CO2. Learn some classical and partial theories of Development economics and identify the difference.
- CO3. Identify the difference between Developed and Developing Countries.
- CO4. Analyse and tackle the Development issues effectively.

MODULES	DESCRIPTION	56 Hrs
Module 1	Introduction to Economic Development	14
	Concept - Definitions - Distinction between Economic Growth and Development - Indicators of Growth and Development, Measures of Economic Development: Gross National Product (GNP) - Physical Quality of Life Index (PQLI), Human Development Index (HDI), Happiness Index, Inequality and Poverty: Meaning, causes, indicators – Gini Coefficient Index, Human Poverty Index (HPI).	
Practicum:	Assignment on various indicators of growth and development Group discussions about the characteristic features of different countries and their development levels	
Module 2	General Theories of Economic Growth and Development	14
	Adam Smith's Theory, David Ricardo's Theory, T.R. Malthus' Theory, Karl Marx's Theory, Schumpeter's Theory and Rostow's Growth Theory - Harrod-Domar Model.	
Practicum:	Assignment on different theories and their relevance to developing Countries, Debate on present stage of India's growth and estimated stage it may reach by 2047	
Module 3	Partial Theories of Economic Development	14
	Lewis Labour Surplus Model - Rodan's Big Push Theory - Lieberstein's Critical Minimum Effort Approach - Balanced Vs. Unbalanced Growth, Factors in the Development Process Capital Accumulation - Capital-Output Ratio - Technology and Economic Development.	

Practicum:	Group Discussion on Balanced and unbalanced growth strategies in Developed and developing countries Assignment on the Factors in the Development Process Capital Accumulation	
Module 4	Sustainable Development	14
	Inclusive Development - Millennium Development Goals - Sustainable Development Goals, Targets and Achievements with reference to India.	
Practicum	Seminar on MDGs and SDGs and the challenges	

References	
1	Higgins Benjamin & W.W. Norton Economic Development New York & Company. Inc.
2	Mishra S.K and Puri V.K, Economic Development and Planning, Himalaya Pub., House, Mumbai.
3	Taneja M.L. and Meier G. M, Economics of Development and Planning, S. Chand and Co, Delhi.
4	Thirlwall A.P. Growth and Development: With Special Reference to Developing Economies, Palgrave Macmillan, New York.
5	Todoaro. M.P & Orient Longman Economic Development in the Third World, United Kingdom
6	Sustainable Development Reports

Formative Assessment for Theory	
Assessment Occasion /type	Marks
Internal Assessment Test 1	10
Internal Assessment Test 2	10
Quiz/Assignment/ Small Project	10
Seminar	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–V

Skill Enhancement Course: SEC-3

Program Name	B. Sc in Economics	Semester	Fifth Semester
Course Title	Economics of Artificial Intelligence		
Course Code:	035ECO061	No. of Credits	2
Contact hours	30 Hours	Duration of SEA/Exam	1 Hours
Formative Assessment Marks	20	Summative Assessment Marks	30

Course Outcome: After the successful completion of the course, the student will be able to:

- CO1 Acquaint with Artificial Intelligence?
- CO2. Understand the importance of Artificial Intelligence in the growth and development of the economy.
- CO3. Understand the impact and implications of Artificial Intelligence on the various aspects of the economy
- CO4. The Implications of Artificial Intelligence for Public Policy

MODULES	DESCRIPTION	30 Hours
Module I	Introduction to Artificial Intelligence	10
	What is Intelligence? - agents and their goals, substrates; Evolution of biological intelligence – history, benefits and costs, emotions, empathy and cooperation, language and human culture; Evolution of artificial intelligence: history of AI - second machine age, the third digital revolution, the fourth industrial revolution; Machine Learning – Its impact on Economics, Ubiquitous computing, Clouds, Big data, Block chains, Software agents, robots and Digital Innovations; Artificial Intelligence - Theory of Decision Making, General Purpose Technology; Economic Potential of Artificial Intelligence – Innovations; AI and Privacy	
Practicum	Presentation on Machine Learning – Its impact on Economics	
Module II	Artificial Intelligence and the Economy	10
	Intelligent Economy – Platform economy, Gig economy, Sharing economy, Block chain economy, Crypto currency economy; Artificial Intelligence and Economic Growth – Productivity Gains, Knowledge Production Function; Implications of automation and AI on the demand for labor, wages, and employment; Artificial Intelligence – Research and Development, Structural Transformation, Income redistribution and Employment, Role of Demand; AI and Industrial Organization – Need for firm level data; Impact of AI and Machine Learning on Market Design; Macroeconomic Impact of AI.	
Practicum	Identify the role of Crypto currency in economic development and write a report	
Module III	Policy Implications of Artificial Intelligence	10
	Public Policy in an AI Economy - redistribution vs predistribution, concerns about inequality, steering technological progress; What shall be taxed? - labour vs capital; robots vs scarce factors? AI and International Trade -	

	policy implications with respect to investments in research, and behind-the-border regulations such as privacy, data localization, standards, and competition; Economics of Tort Liability – Punishing Robots; AI and Behavioural Economics; Ethical Challenges in the Intelligent economy – Challenges for Society, Challenges for ethics; Social attitudes: deriving meaning & dignity from work	
Practicum	Debate on Policy implications of Artificial Intelligence	

References

- 1 Agrawal Ajay, Gans Joshua & Goldfarb Avi (2019). *The Economics of Artificial Intelligence – An Agenda*, NBER and University of Chicago Press
- 2 Brynjolfsson, Erik and Andrew McAfee (2015), *The Second Machine Age: Work, Progress and Prosperity in a Time of Brilliant Technologies*, W.W. Norton.
- 3 Kahin. B & Brynjolfsson. E (2000), *Understanding the Digital Economy: Data, Tools and Research*, Cambridge, Mass: The MIT Press

Academic Articles

- 1 Berg, Andrew, Edward F. Buffie, and Luis-Felipe Zanna (2017), “Robots, Growth, and Inequality: Should We Fear the Robot Revolution? (The Correct Answer is Yes),” forthcoming, *IMF Working Paper*.
- 2 European Political Strategy Centre, *The age of artificial intelligence*, EPSC Strategic Notes, March 2018.
- 3 Frey, Carl Benedikt, and Michael A. Osborne (2013), “The Future of Employment: How Susceptible Are Jobs to Computerisation?” Oxford University paper.
- 4 Gries T. and Naudé W., *Artificial Intelligence, Jobs, Inequality and Productivity: Does Aggregate Demand Matter?*, Institute of Labor Economics, Discussion paper No 12005, November 2018.
- 5 Korinek, Anton and Joseph Stiglitz (2019), “Artificial Intelligence and Its Implications for Income Distribution and Unemployment,” in Agrawal et al.: *The Economics of Artificial Intelligence*, NBER and University of Chicago Press, May 2019.
- 6 McKinsey Global Institute, *Notes from the AI frontier – Modeling the impact of AI on the world economy*, discussion paper, September 2018.
- 7 OECD, *Digital economy outlook 2017*, October 2017.
- 8 PricewaterhouseCoopers, *The macroeconomic impacts of artificial intelligence*, February 2018.

Formative Assessment for Theory

Assessment Occasion/type	Marks
Internal Assessment Test 1	5
Internal Assessment Test 2	5
Quiz/Assignment/Small Project	5
Seminar	5
Total	20 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–VI

Discipline Specific Course (DSC)-12

Program Name	B.Sc. in Economics	Semester	Sixth Semester
Course Title	Actuarial Economics		
Course Code:	036ECO011	No. of Credits	4
Contact hours	56 Hours	Duration of SEA/Exam	2 Hours
Formative Assessment Marks	40	Summative Assessment Marks	60

Course Objective:

- To understand the basic actuarial techniques
- To understand the concepts of finance and its application in actuarial economics

Course Outcome: After the successful completion of the course, the student will be able to:

- CO1. Enables understanding on Actuarial Economics and Insurance sector.
- CO 2. To acquaint with advances in financial models

Modules	Description	56 Hours
Module I	Introduction to Actuarial Economics	10
	Principles of Actuarial Economics - Importance of Finance and Mathematics in Actuarial Economics - The concept of Insurance - Classification of Insurance - Types of Life Insurance - History of Insurance in India - Insurance regulatory and development Act.	
Practicum	Assignment on Principles and Importance of Finance and Mathematics in Actuarial Economics.	
Module II	Theory of Interest	16
Chapter 4	Time value of money - Simple interest, compound interest, depreciation, investing over a period. Cash flow models - Zero coupon bonds, fixed interest securities, index linked securities, equity, annuity, an interest on loan, repayment loan. Interest rates - Nominal rate, effective rate and force of interest.	
Practicum	Calculate Simple interest, compound interest, depreciation	
Module III	Theory of Uncertainty and Risk Models	16
	Axioms of choice under uncertainty; utility functions; expected utility theorem; measures of risk-absolute and relative risk aversions; measures of investment risk-variance of return, semi-variance of return Decision Theory: Zero-sum two-player games – Domination - The Minimax criterion - Saddle points.	
Practicum	Presentation on Theory of Uncertainty and Risk Models	

Module IV	Portfolio Theory	14
	Portfolio Theory - Benefits of Diversification, Models of Asset Returns: - Multifactor Models - The Single Index Model, Asset Pricing Models: - The Capital Asset Pricing Models (CAPM) – Limitations of CAPM.	
Practicum	Group discussion on Portfolio Theory and Benefits of Diversification	

References

1	Stephen G. Kellison, The theory of interest. Irwin Mc Graw Hill, 2008.
2	John Hull, Futures, Options and financial derivatives, Prentice hall publication
3	Panjer, Harry, H. (1998), Financial economics with applications to investments, Insurance and pensions. The Actuarial foundation.

Formative Assessment for Theory	
Assessment Occasion /type	Marks
Internal Assessment Test 1	10
Internal Assessment Test 2	10
Quiz/Assignment/ Small Project	10
Seminar	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–VI

Discipline Specific Course (DSCC)-13

Program Name	B.Sc. in Economics	Semester	Sixth Semester
Course Title	Indian Public Finance		
Course Code:	036ECO012	No. of Credits	4
Contact hours	56 Hours	Duration of SEA/Exam	2 Hours
Formative Assessment Marks	40	Summative Assessment Marks	60

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

- CO1. Understand the structure of Indian Public Finance
- CO2. Enable the students to know the Source and nature of public revenue and expenditure
- CO3. Understand the Budget and different concept of deficits
- CO4. Know the Public debt and its management
- CO5. Understand the fiscal and monetary policy and their tools and importance
- CO7. To enable the students to know the Indian federal financing system and Financial Commissions

MODULES	DESCRIPTION	56 Hours
Module I	Public Revenue	15
	Direct Tax Revenue - Sources of Revenue-Tax and Non-Tax Revenue; Trends and Patterns of Tax Revenue in India; Direct and Indirect Taxes in India; Personal Income Tax Rates and Slabs; Corporate Tax- Tax Rate and Slabs; Indirect Tax Revenue - Indirect Taxes – Earlier Taxes-VAT and MODVAT; Goods and Services Tax (GST)- Objectives and Classification of GST, Tax Rates of GST; Trends and Patterns of GST; Impact of GST on Indian Economy; Tax Reform Commissions.	
Practicum	Collection and analysis of data on Direct tax Collection and analysis of GST from businesses.	
Module II	Public Expenditure	14
	Revenue Expenditure - Classification of Public Expenditure in India; Revenue Account Expenditure- Trends and Patterns; Capital Account Expenditure-Trends and Patterns; Fiscal Responsibility and Budget Management (FRBM) Act; Impact of Public Expenditure on Indian Economy; Expenditure Reforms Commission (ERC) in India; Union Budget and Its Analysis - Meaning and Classification of Budgets; Zero-Based Budget; Composition of Union Budget; Union Budget Analysis (current one); Different Concept of Deficits- Revenue, Fiscal, Primary Deficits.	
Practicum	Analysis of Union Budget (Current one) Group Discussion on Budget Deficits	

Module III	Public Debt and Its Management	14
	Public Borrowings and Debt - Meaning and Nature of Public Debt; Sources of Public Borrowings; Classification of Public Debt; Trends and Patterns of Central Government Debt; Main Characteristics of Indian Public Debt; Crowding out of Private Investment; Causes of Public Debt in India; Burden of Public Debt and Management in India - Meaning of Burden of Public Debt; Importance of Public Management; Principles of Public Debt Management; Repayment of Public Debt in India; Impact of Public Debt on Indian Economy; Finance Commissions in India	
Practicum	Assignment to write on Indian Public Debt and sources of repayment Group Discussion on Burden of Public Debt	
Module IV	Fiscal and Monetary Policies and Federal Finance in India	13
	Fiscal and Monetary Policy India - Meaning and Objectives of Fiscal Policy; Importance of Fiscal Policy; Tools of Fiscal Policy; Meaning and Objectives of Monetary Policy; Importance of Monetary Policy; Tools of Monetary Policy; Indian Federal Finance - Meaning and Importance- Stages of Growth; Allocation of Resources- Division of Functions and Resources; Principles of Federal Finance; Shortcomings of Federal Financing; Finance Commission and Their Recommendations.	
Practicum	Group Discussion about the Role of Fiscal and Monetary Policies in controlling inflation Assignment to write the State List, Union List and Concurrent list	

References	
1	Bhatia H L (2021): Public Finance, S. Chand and Co., New Delhi.
2	Lekhi R.K (2020): <i>Public Finance</i> , Kalyani Publishers, New Delhi.
3	Musgrave R.A and Musgrave P.A (2017): <i>Public Finance in Theory and Practice</i> , McGraw- Hill Kogakusha, Tokyo.
4	Om Prakash (2021): <i>Public Economics: Theory and Practice</i> , Vishal Publishing Co. Ludhiana.
5	S.K. Singh (2019): <i>Public Economics: Theory and Practice</i> S. Chand and Co., New Delhi.
6	Tyagi, B.P (2018): <i>Public Finance</i> , Jai Prakash Nath and Company, Meerut, India.

Formative Assessment for Theory	
Assessment Occasion /type	Marks
Internal Assessment Test 1	10
Internal Assessment Test 2	10
Quiz/Assignment/ Small Project	10
Seminar	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–VI

Discipline Specific Course (DSCC)-14

Program Name	B.Sc. in Economics	Semester	Sixth Semester
Course Title	International Economics		
Course Code:	036ECO013	No. of Credits	4
Contact hours	56 Hours	Duration of SEA/Exam	2 Hours
Formative Assessment Marks	40	Summative Assessment Marks	60

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

- CO1. Understand the international trade theories and their application in international trade
- CO2. Explain the concept of terms of trade and demonstrate the effect of trade barriers; and display the ability to analyse the stages of economic integration
- CO3. Understand the concept of BoP and assess the BoP position and examine the changes in forex rate
- CO4. Analyse the role of International trade and financial institutions
- CO5. Demonstrate good inter-personal and communication skills through class participation and contributing to critical discussion on trade issues

MODULES	DESCRIPTION	56 Hours
Module I	International Trade Theories	14
	Meaning and Importance of International trade; Differences between Internal and International Trade; Trade Theories: Mercantilist view; Absolute cost and comparative cost advantage theories; Haberler's Opportunity cost theory; Heckscher-Ohlin theory; Leontief's paradox	
Practicum	Assignment on Ricardo's Comparative cost advantage and Leontief's paradox	
Module II	Terms of Trade and Commercial Policy	16
	Terms of trade- Concept and Types, Factors determining Terms of Trade; Commercial Policy: Free trade v/s Protection; Tariffs: Types and effects; Quotas; Anti-dumping; Economic Integration: Meaning and stages.	
Practicum	Debate: Free trade v/s Protection Mini project: Trace the evolution of India towards Economic Integration	
Module III	Balance of Payment and Capital Flow	12
	Balance of Payment: Concept, Components; Disequilibrium in Balance of Payment: Causes and Measures to correct disequilibrium; Foreign Exchange rate: Meaning and types; determination of Foreign exchange rate: Demand for and Supply of Forex; Purchasing Power Parity (PPP) theory; Capital Flow: Meaning and concept of Foreign Investment; Forms of FDI; Advantages and disadvantages of FDI.	
Practicum	Prepare India's Balance of Payment statement using recent Economic Survey Assignment on Forms of FDI	

Module IV	International Finance and Trade Institutions	14
	Bretton Woods Institutions: IMF and IBRD -IDA and IFC: Organization, Objectives, Functions and their role in developing countries; Evolution of WTO: GATT – principles and objectives; WTO: Organization, Objectives, Functions, Agreements and current issues; WTO and developing countries;	
Practicum:	Group Discussion: Effectiveness of IMF and IBRD in developing countries Seminar: Agreements of WTO or current issues of WTO	
References		
1	Sodersten. B. (1993): International Economics, MacMillan, 3 Edition, London,	
2	Salvatore, D. (2016): International Economics, 12 Edition, Wiley Publication	
3	Vaish, M. C. and Sudama Singh (1980): International Economics, 3 Edition, Oxford and IBH Publication, New Delhi.	
4	Carbaugh, R. J. (1999): International Economics, International Thompson Publishing, New York	
5	Dana, M. S. (2000): International Economics: Study Guide and work Book, 5. Edition, Routledge Publishers, London.	
6	Kenen, P. B. (1994). The International Economy, Cambridge University Press, London.	
7	Krugman, P.R. and M. Obstfeld (1994): International Economics: Theory and Policy Addison-Wesley Publications.	
8	Jackson, JD. (1998) The World Trading System, Cambridge University Press, Mass. Cherunilam, International Economics, TMH, New Delhi.	
9	D M Mithani, International Economics, Himalaya, Mumbai.	
10	Jhingan M.L.(2016): International Economics, Vrinda Publications Pvt Ltd-Delhi	
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13	Krishnamurthy H.R (2013) : Antararashtreeya Arthashastra ; (Kannada version), Sapna, Bengaluru	

Formative Assessment for Theory	
Assessment Occasion /type	Marks
Internal Assessment Test 1	10
Internal Assessment Test 2	10
Quiz/Assignment/ Small Project	10
Seminar	10
Total	40 Marks
<i>Formative Assessment as per guidelines.</i>	

B.Sc. Semester–VI

Internship/Sec-4

Course Title: INTERNSHIP/SEC-4

Course Code: 036EC0091

Type of Course	Theory /Practical	Credits	Instruction hour/week	Total No. of Lectures/Hours /Semester	Duration of Exam	Formative Assessment Marks	Summative assessment Marks	Total Marks
Internship	Theory	02	02	30	--	50	0	50

Course Outcomes (COs):

- CO1. To handle field survey and gain the knowledge.
- CO2. Able to learn the behavioral approach and develop the communication skills.
- CO3. Expose to the local areas and involved in the Public participation.
- CO4. Able to apply technique/ and methodology technology.
- CO5. Able to learn to prepare the report of field visit.

INTERNSHIP:

A course requiring students to participate in a professional activity or work experience, or cooperative education activity with an entity external to the education institution, normally under the supervision of an expert of the given external entity. A key aspect of the internship is induction into actual work situations for 2 credits. Internships involve working with local industry, local governments (such as panchayats, municipalities) or private organizations, business organizations, artists, crafts persons, and similar entities to provide opportunities for students to actively engage in on-site experiential learning.

Note;

1. 1 credit internship is equal to 30hrs on field experience.
2. Internship shall be Discipline Specific of 45-60 hours (2 credits) with duration 1-2 weeks.
3. Internship may be full-time/part-time (full-time during last 1-2 weeks before closure of the semester or weekly 4 hrs in the academic session for 13-14 weeks). College shall decide the suitable method for programme wise but not subject wise.
4. Internship mentor/supervisor shall avail work allotment during 6th semester for a maximum of 20 hours.
5. The student should submit the final internship report (45-60 hours of Internship) to the mentor for completion of the internship.
6. Method of evaluation: Presentations/Report submission/Activity etc.

MODEL CURRICULUM

Program Name	B.Sc. in Economics Internship	Semester	Sixth Semester
Course Title	Internship		
Course Code:	Skill Enhancement Course	No. of Credits	2
Contact hours		Duration of SEA/Exam	Practical
Formative Assessment Marks	50	Summative Assessment Marks	NA

INTRODUCTION:

Internship [Organizational work] is an integral part of the curriculum. Its objective is to equip students with job skills and communication abilities, enabling them to bridge the gap between theoretical knowledge and practical application. The internship program incorporates various interventions that offer students exposure to real-life job experiences and expectations, empowering them with insights into the workings of different industries.

The internship is strategically positioned during the 6th semester of the Bachelors of Arts in Economics program. This timing provides students with a strong foundation in economics, enabling them to apply their knowledge in real-world settings. Additionally, the program caters to the critical need for teaching skills in economics and administration, enhancing the academic qualifications of students. Overall, the internship program aims to prepare students for the job market, thereby bridging the gap between academia and the professional world.

OBJECTIVES:

The objectives of conducting program are:

1. To boost students' employability by imparting soft skills that are essential in everyday life.
2. To enable students discover their professional strengths and weaknesses and align them with the changing economic environment.
3. To provide an opportunity for students to apply theoretical concepts and knowledge in real life situations at the work place.
4. To prepare students to understand organization culture and familiarize them with the organization needs.
5. To enable students to manage resources, meet deadlines, identify and undertake specific goal-oriented tasks.
6. To sharpen domain knowledge and provide core competency skills.

Internship Requirements & General Guidelines:

A. Nature of internship project work:

1. Every Student is required to work in an organization (a firm, self- help groups/cooperatives/farms or any rural economy components) for at least two months as part of Internship.
2. The student shall identify an internship work place.
3. Maximum five students of the same department from a College/University shall work for Internship in the same organization.
4. Internship work may be to carry out Professional work.
5. The internship shall be paid or unpaid.
6. While, working from the organizational premises is encouraged, in certain cases, virtual internship shall be considered.

B. Duration of Internship:

1. The Internship works shall be for a period of TWO months [Sixty Days].
2. The internship commence from the first day of the sixth semester.
3. Student is expected to carry out his/her Internship works during the first FIVE days of the week, and shall report to the department on a weekly basis.
4. The duration of the work shall be specified by the organization at the beginning of the program and the number of hours spent shall be in line with the prevailing rules.

C. Guide and Mentor:

1. An internal mentor shall be assigned by the University/College for the smooth conduct and supervision of the internship program.
2. The internal mentor shall provide guidance students in securing internship and to monitor the progress.

D. Protocol of the Internship work:

1. The head of the institution shall issue an internship work authorization letter during the 5th semester to the College or Organization where student is expected to join the internship work.
2. Student is expected to take up the preliminary work such as identifying the organization and engaging in securing in an offer from an organization
3. During the 5th semester, students who secured an offer must get consent offer signed by the principal/head to carry out internship.
4. Student must submit the joining report with the date of joining for internship to the department head through internal mentor.
5. In case of professional work, the student is expected to be regular in performing his/her duties/tasks assigned to him/her by the Organization.

E. Evaluation:

1. All the students should obtain a certificate of internship from the workplace. This certificate shall mention the name of the candidate, the organizations name and duration of work. A letter describing the work of the candidate is desirable. The certificate shall be submitted to the department head.
2. The performance of a candidate shall be assessed for maximum of 100 marks.
3. The assessment methods shall be decided by the Universities based on the existing conventions.
4. The assessment method shall consist of an internship report submitted by the students based on the work experience and a viva-voce/presentation.
5. **Viva-voce/Presentation:** There shall be a viva-voce examination will be conducted for by the department where each student is expected to give a presentation and submit necessary documents.

Formative Assessment for Theory	
Assessment Occasion/type	Marks
Project Report	20
Presentation Skill	20
Viva	10
Total	50 Marks
<i>Formative Assessment as per guidelines.</i>	

Question Paper Pattern for UG Semester

DSC, DSEC & OEC

Paper Code:		Paper Title:	
Duration of Exam	2 Hours	Max Marks	60 Marks
Instruction:	Answer all the sections		

Section-A

1. Answer ALL the following sub-questions, each sub-question carries ONE mark	(10X1=10)
A. B. C. D. . J.	
<i>Note for Section-A: Three sub-questions from each unit and remaining one sub-question (J) from unit I to III.</i>	

Section-B

Answer any FOUR of the following questions, each question carries FIVE marks	(4X5=20)
2. 3. 4. 5. 6. 7.	
<i>Note for Section-B: Minimum Two question from each unit (Q No 2 to 6)</i>	

Section-C

Answer any THREE of the following questions, each question carries TEN marks	(3X10=30)
8. 9. 10. 11. 12.	
<i>Note for Section-C: Minimum Two question from each unit (Q No 8 to 12) Sub-questions such as 'a' and 'b' may be given for a question in section-C only.</i>	

