St. Joseph's College of Commerce

(Autonomous)

163, Brigade Road, Bengaluru – 560 025

Accredited with 'A++' Grade (4th Cycle) by the National
Assessment and Accreditation Council (NAAC)

Recognized by the UGC as
"COLLEGE WITH POTENTIAL FOR EXCELLENCE"

B.Sc. Economics

Semester V and VI

Syllabus as per National Education Policy Curriculum Framework

Academic year 2024-25

St. Joseph's College of Commerce (Autonomous)
Affiliated to Bengaluru City University

St. Joseph's College of Commerce (SJCC) was formerly a part of St. Joseph's College, established in the year 1882. The Commerce Department was established in the year 1949 and it became an independent college with its own building in Brigade Road in the year 1972.

The college has in its Vision a model for higher education which encourages individuals to dream of a socially just world and in its Mission a strategy to empower individuals in realizing that dream.

With an objective of imparting quality education in multidisciplinary fields of Commerce, Management, Economics, English and Psychology the college has been innovating in all aspects of higher education over a long period of time. These innovations were further bolstered with the granting of autonomous status to the college by UGC in September 2005. From then on, the college has taken a lead in reforming curriculum and syllabus, examination and evaluation pattern and teaching and learning methods through the Board of Studies, the Academic Council and the Governing Council comprising of eminent academicians, industry representatives and notable alumni.

The college has undergone four cycles of NAAC accreditation starting from the year 2000 in which it secured 'five stars', next in the year 2007 an 'A' grade, in the year 2012 again an 'A' grade and recently in February 2021 an 'A++'. It is one of the very few institutions in the country to have secured A++ grade in the fourth cycle under the Revised Accreditation Framework (RAF) and the first college in Karnataka to do so. The college was declared as a 'College with Potential for Excellence' in the year 2010. In 2011 SJCC was recognized as a Research Centre by Bangalore University. The college has been ranked 65th in the National Institutional Ranking Framework (NIRF) ratings of Ministry of Education, Government of India, in 2023 and it has been the only institution from Karnataka to make it consistently to the top 100 in the country.

The college offers diverse programmes in Commerce, Business Administration, Economics and English. Under Commerce Studies it offers
B. Com, B. Com (Professional- International Accounting and Finance), B.Com (BPS- Industry Integrated), B.Com (Travel and Tourism), B.Com (Analytics), B.Com (Professional - Strategic Finance), M.Com (Finance & Taxation/ Marketing & Analytics), M.Com (International Business) & M.Com (Financial Analysis). Under Business Administration it offers BBA, BBA (Entrepreneurship) and BBA (Professional- Finance and Accountancy). The college also offers six one-year Post Graduate Diploma programmes. The College offers a B.Sc Economics Programme and a B.A English and Psychology Programme.

THE DEPARTMENT OF ECONOMICS

 The Department of Economics offers B.Sc Economics. This Department has started to incorporate the multidisciplinary spirit of the new NEP 2020. The B.Sc Economics programme has been designed to provide a cutting edge expertise in mainstream economics with minor (psychology). The programme aims to develop analytical, creative and critical thinking skills for problem solving and decision making. It aims at better understanding of social, economic, psychological and political issues and also explores the full spectrum of finance. The transferable skills attained

through the B.Sc (Economics) are highly sought after by employers and increase the employability quotient of students in various dynamic fields. A student could be an economist, a government advisor, financial consultant, econometrician, banker and also look forward to different government positions after successful completion of the programme. Keeping in view the new NEP, the programme is multidisciplinary in nature and integrates different fields like Psychology, Finance, Mathematics, Statistics, Data Analytics, Operations Research, History, Politics, Environmental Studies, Model Building with an inbuilt local as well as global perspective.

New elements such as internship, case studies, seminars and research projects enhance deeper understanding of the practical applications of the programme. So, join in to embark on a whole new adventure with us. The bachelor's degree programme in Economics is a full-time undergraduate programme that aims at providing a programme structure which would retain the 'traditionals' in the programme and equip the students with business acumen necessary to succeed in the professional world. On completion of B.Sc. (Economics) at SJCC, students will acquire comprehensive knowledge of how the economic principles are applied in the society, family, government and private sector, business, and science.

SALIENT FEATURES OF B.Sc. ECONOMICS PROGRAMME WITH MULTIPLE ENTRY AND EXIT OPTIONS:

1. The regulations governing B.Sc. Economics Programme with Multiple Entry and Exit Options shall be applicable with effect from the Academic year 2022-2023.
2. The B.Sc. (Economics) Programme shall be structured in a semester mode with multiple exit options.

Certificate	On the completion of **First** year *(two semesters)*
Diploma	On the completion of **Second year** *(four semesters)*
Basic bachelor's degree	On the completion of **Third** year *(six semesters)*

3. The students who exit with Certification, Diploma and Basic bachelor's degree shall be eligible to re-enter the programme at the exit level to complete the programme or to complete the next level.
4. The B.Sc (Economics) Programme offers a wide range of multidisciplinary courses with exposure to other disciplines, specializations and areas. The programme aptly caters to knowledge, ability, vocational, professional and skill enhancement along with focus on humanities, arts, commerce, management, social, physical and life sciences, mathematics, sports etc.
5. The B.Sc (Economics) Programme combines conceptual understanding with practical engagement through lab courses, national and international field visits, internship, conferences, workshops, seminars, case study analysis, group discussions and research projects.

6. A wide range of Skill Enhancement Courses are offered in the first four semesters to enhance language and communication, logical reasoning, critical thinking, problem solving, data analytics and life skills.

7. In each of the first four semester students will have an option of studying a course from other disciplines. Students will be given an option to choose from a pool of Open Elective Courses that provide exposure to multiple disciplines and thereby make the programme truly multi-disciplinary.

8. The students have one *specialization/ elective* in the fifth and sixth semester.

I. ELIGIBILITY FOR ADMISSION

Candidates who have completed the Two-year Pre-university course of Karnataka State or its equivalent are eligible for admission into this Programme.

II. DURATION OF THE PROGRAMME

The duration of the undergraduate programme is *three- years* (six semesters) with multiple entry and exit options, within this period. The students can exit after the completion of *one* academic year (Two semesters) with the *Certificate* in a discipline; *Diploma* after the study of *two* academic years (Four Semesters) and *Basic bachelor's degree* after the completion of *three* academic years (Six Semesters).

III. MEDIUM OF INSTRUCTION

The medium of instruction shall be English.

IV. ATTENDANCE:

a. A student shall be considered to have satisfied the requirement of attendance for the semester, if he/she has attended not less than 75% in aggregate of the number of working periods in each of the courses compulsorily.

b. A student who fails to complete the course in the manner stated above shall not be permitted to take the end semester examination.

V. SUBJECTS OF STUDY: THE COMPONENTS OF CURRICULUM FOR MULTIDISCIPLINARY UNDERGRADUATE BSC.ECONOMICS PROGRAMME

The category of courses and their descriptions are given in the following table.

Category of courses	Objective/ Outcomes
Languages	Language courses equip students with communication skills, critical and creative thinking, familiarity with issues pertaining to society and culture and skills of expression and articulation. They also provide students with a foundation for learning other courses.
Ability Enhancement Courses	Ability enhancement courses are the generic skill courses that enable students to develop a deeper sense of commitment to oneself and to the society and nation largely.
Skill Enhancement Courses	Skill Enhancement Courses enhance skills pertaining to a particular field of study to increase their employability/ Self- employment. These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.
Vocational Enhancement courses	Vocational Enhancement courses enhance skills pertaining to a particular field of study to increase their employability/ Self-employment.
Foundation/ Discipline based Introductory Courses	These courses will supplement in a better understanding of how to apply the knowledge gained in classrooms to societal issues.
Major Discipline Core Courses	Major Discipline Core Courses aim to cover the basics that a student is expected to imbibe in that particular discipline. They provide fundamental knowledge and expertise to produce competent, creative graduates with a strong scientific, technical and academic acumen.
Major Discipline Elective Courses	These courses provide more depth within the discipline itself or within a component of the discipline and provide advanced knowledge and expertise in an area of the discipline.
Open or Generic Elective Courses	Open or Generic Elective Courses are courses chosen from an unrelated discipline/ subject, with an intention to seek exposure beyond discipline/s of choice.
Project work/ Dissertation/ Internship/ Entrepreneurship	Students shall carry out project work on his/her own with an advisory support by a faculty member to produce a dissertation/ project report. Internship/ Entrepreneurship shall be an integral part of the Curriculum.
Extension Activities	As part of the objective of Social Concern, the College has designed a well-structured Community Outreach programme of sixty hours called 'Bembala' (Support). The programme includes rural camps, workshops, lectures and seminars, teaching programmes in Government Schools or Colleges, community service in slums and villages, awareness programmes in streets, localities, slums or villages and public rallies on social issues. The College expects the students to be part of the activities

	organized by the College towards securing the goal of Social Concern. This programme is mandatory for the award of degree from the college.
Extra/Co-Curricular Activities	The College has a wide range of student associations and clubs that provide space for students to develop their creative talents. The activities conducted help in developing not just the artistic and entrepreneurial talents but also helps in character building, spiritual growth, physical growth, etc. They facilitate development of various domains of mind and personality such as intellectual, emotional, social, moral and aesthetic developments. Creativity, enthusiasm, and positive thinking are some of the facets of personality development and the outcomes of these activities.

VI. CREDIT REQUIREMENT

Credits represent the weightage of a course and are a function of teaching, learning and evaluation strategies such as the number of contact hours, the course content, teaching methodology, learning expectations, maximum marks etc.

VII. TEACHING AND EVALUATION

M.A/M.Sc graduates with Economics and Psychology as basic degree from a recognized university are only eligible to teach and to evaluate the courses including part – B courses of I and II semesters (except languages, compulsory additional courses and core Information Technology related courses) mentioned in this regulation. Languages and additional courses shall be taught by the graduates as recognized by the respective board of studies.

VIII. EXAMINATION & EVALUATION:

CONTINUOUS FORMATIVE EVALUATION/ INTERNAL ASSESSMENT:

Total marks for each course shall be based on continuous assessment and semester end examinations. As per the decision taken at the Karnataka State Higher Education Council, the total marks for CIA and ESE as per NEP for will be 40:60.

TOTAL MARKS FOR EACH COURSE	100%
Continuous Internal Assessment –CIA 1	20% marks
Continuous Internal Assessment –CIA 2	20% marks
End Semester Examination - (ESE)	60% marks

EVALUATION PROCESS OF INTERNAL ASSESSMENT MARKS SHALL BE AS FOLLOWS.

a. The first component (CIA 1) of assessment is for 20% marks. The second component (CIA 2) of assessment is for 20% marks.

b. During the end of the semester, end semester examination shall be conducted by the

college for each course. This forms the third and final component of assessment (C3) and the maximum marks for the final component will be 60%.

c. The students shall be informed about the modalities well in advance. The evaluated assignments during component I (CIA 1) and component II (CIA 2) are immediately provided to the students.

d. The marks of the total internal assessment shall be published on the ERP for students at the end of semester.

e. The internal assessment marks shall be submitted to the COE as per the date mentioned.

f. There shall be no minimum marks in respect of the internal assessment marks.

g. Internal assessment marks may be recorded separately. A student who has failed, shall retain the internal assessment marks as there will be no change in the CIA results scored.

MINIMUM FOR A PASS

a. A student needs to get 40% in the end semester examination and in addition the student also should get an aggregate of overall 40% inclusive of his internal assessment to be declared as passed.

b. The student who is passed in all the end semester examinations in the first attempt is eligible for rank

c. A student who passes the semester examinations in parts or attempted supplementary exams is eligible for only Class, CGPA but not for ranking.

d. The results of students who have passed the last semester examinations but not passed the lower semester examinations shall be eligible for the degree only after completion of all the lower semester examinations.

e. If a student fails in a subject, either in theory or practical's he/she shall appear for that subject only at any subsequent regular examination, as prescribed for completing the programme. He/she must obtain the minimum marks for a pass in that subject (theory and practical's separately) as stated above.

CARRY OVER

Students who fail in lower semester examinations may go to the higher semesters and take the lower semester examinations as per odd or even semester in the next consecutive chance.

CLASSIFICATION OF SUCCESSFUL CANDIDATES:

The ten-point grading system is adopted. The declaration of result is based on the Semester Grade Point Average (SGPA) earned towards the end of each semester or the Cumulative Grade Point Average (CGPA) earned towards the completion of all the eight semesters of the programmes and the corresponding overall grades. If some students exit at the completion of the first, second or third year of the four years Undergraduate Programmes, with Certificate, Diploma or the Basic Degree, respectively, then the results of successful candidates at the end of second, fourth or sixth semesters shall also be classified on the basis of the cumulative Grade Point Average (CGPA) obtained in the two, four, six, respectively. For award of,

- Certificate

- Diploma
- Basic bachelor's degree

TRANSFER FOR ADMISSION:

Transfer for admission is permissible only for odd semesters for students of other universities and within the university.

CONDITIONS FOR TRANSFER OF ADMISSION OF STUDENTS WITHIN THE UNIVERSITY.

a) His/ her transfer admission shall be within the intake permitted to the college.
b) Availability of same combination of subjects studied in the previous college.
c) He/she shall fulfill the attendance requirements as per the University Regulation.
d) He/she shall complete the programme as per the regulation
governing the maximum duration of completing the programme.

CONDITIONS FOR TRANSFER ADMISSION OF STUDENTS OF OTHER UNIVERSITIES.

a) A Student migrating from any other University may be permitted to join odd semester of the degree programme provided he/she has passed all the subjects of previous semesters/years as the case may be. Such candidates must satisfy all other conditions of eligibility stipulated in the regulations of the University.
b) His/her transfer admission shall be within the intake permitted to the college.
c) He/she shall fulfill the attendance requirements as per the University Regulation.
d) The student who is migrating from other Universities is eligible for overall SGPA/CGPA or Class and not for ranking.
e) He/she shall complete the programme as per the regulation governing the maximum duration of completing the programme as per this regulation.

Program Objectives

1. To provide a sound foundation in factual knowledge in various concepts, theories and models of mainstream economics, and its diverse subfields of macro, micro, developmental economics, public finance, monetary economics, etc. to rigor to the subject and learn to apply them in analysing economic phenomena.

2. To develop strong quantitative skills in students by introducing them to mathematical economics, statistics and econometrics in order to analyse complex economic issues.

3. To enhance 'learning to learn' skills in students through guided self- learning in order to develop their critical and creative thinking skills and

4. be able to generate new ideas and processes.

5. To enable students to integrate technology into the study of complex economic phenomenon for analysis of available data, learning to make inferences and finally, learning to produce findings in

visual form and writing.

6. To be able to critique the dynamic complex interaction of economies with society by studying firms and governments through behavioural experimental methods which will lead them to explore policy formulation.

Programme Outcomes

1. Systematic understanding of economic terminology and concepts. Ability to recall the fundamentals of both micro and macroeconomics theories.

2. Explain the relationship between various economic factors and variables.

3. Interpret different economic data through tabulation and graphical presentation of data.

4. Excellent understanding of how to tackle economic problems while being aware of the application and limitations of different approaches, showing strong judgement in the usage of these approaches in varied settings.

5. Analyse economic data with the aid of mathematical and quantitative techniques.

6. Create economic simulation model which represent real life scenario and creatively find solutions to economic issues.

7. Determine the boons and bains of economic arguments, economic policies, economic theories and economic reasoning.

8. Assessing the impact of economic developments on society and make recommendations for evolving stronger and better economic policies.

9. Developing new economic models relevant to a dynamic environment by incorporating latest technologies and software.

10. Solve the complex Macro economic problems with an understanding of the societal, legal and cultural impacts of the solution.(Example: Economics Goods & Services Tax (GST)-Fiscal Monetary Policy, Union Budget, Crony Capitalism, Bankruptcy Code, Re-capitalism and so on)

11. Carrying out innovative and original research.

B.Sc Economics Programme Matrix

Category /Semesters	I	II	III	IV	V	VI	Not applicable		Total Credits
PART A: LANGUAGES & COMPULSORY COURSES									
Language 1 4 Hrs/3 Cr	Language 1 (3 Cr)	Language 1 (3 Cr)	Language 1 (3 Cr)	Language 1 (3 Cr)	-	-	-	-	24
Language 2 4 Hrs/3 Cr	Language 2 (3 Cr)	Language 2 (3 Cr)	Language 2 (3 Cr)	Language 2 (3 Cr)	-	-	-	-	
Compulsory Courses (2Hrs/2Cr)		Environment al Studies (3Cr)		Indian Constitutio n (3Cr)					6
PART B: CORE & ELECTIVE COURSES, SEC-SB, VOCATIONAL COURSES, RESEARCH & INTERNSHIP									
Discipline Specific Core Courses: Economics (4Hrs/ 4Cr or 3 Cr)	Microeco nomi cs (3 Cr)	Macroecon omics (3 Cr)	Factor Pricing & Welfare Economics (3 Cr)	Monetary Economics (3 Cr)	Economics of growth and Developme nt (4 Cr)	Environm ental Economic s (4 cr)			72
	Mathema tics for Economic s (3 Cr)	Statistics for Economics (3 Cr)	Basic Econometri cs (3 Cr)	Time Series Economics (3 Cr)	Data Analytics using R Programmi ng (4 Cr)	Behaviour al Economic s (4 cr)			
					Operation Research (4 cr)	Contempo rary Indian Economy (4 cr)			
					Research Methodolog y (4cr)	History of Economic s Thought (4 cr)			
Psychology (Minor)	PSY – 1 (4+2)	PSY– 2 (4+2)	PSY – 3 (4+2)	PSY – 4 (4+2)					24
Open Elective Courses (3Hrs/3Cr)	Choice of Course (3 Cr)	Choice of Course (3 Cr)	Choice of Course (3 Cr)		-	-	-	-	9
Discipline Specific Elective (4 rs/3Cr)	-	-	-	-	International Economics (3 Cr)	Labour Economics (3 Cr)	Elective 3 (3 Cr)	Elective 4 (3 Cr)	12
Skill Enhancem ent Courses- Skill Based (1Hr./2 Cr)	Digital Fluency (2 Cr)		Artificial Intelligenc e (2 Cr)	Financial Education and Investment Awareness (2cr)	Internship (2 Cr)	Internshi p (2 Cr)	-	-	10
Vocational Enhancement Courses (3	-	-	-	-	Stock Trading (3 Cr)	Introducti on to Python	Choice of Course	Choice of Course	12

Hrs/3Cr)						Programming and Machine Learning (3 Cr)	(3 Cr)	(3 Cr)	
Research Methodology (4hrs/4 Cr)								-	4
Research Project/ Internship (6 Cr)/Additional Electives (4Hrs/3Cr)	-	-	-	-	-		Research Proposal Formulation (2 cr)	Research Project (10+2 cr)	10+2*
PART C: SKILL ENHANCEMENT COURSES- VALUE BASED									
Foundation Courses (2Cr)	Psychological Well-being (2Cr)	Outreach (1 cr)	Yoga (1 cr)-	Outreach (1 cr)			-	-	8
Extension and Extra-Curricular Activities	-	Extension & Extra-Curricular Activities (1Cr)	Extension & Extra-Curricular Activities (1Cr)	Extension & Extra-Curricular Activities (1Cr)			-	-	
Total Crs.	25	26	25	25	24	24	22*	22	193*

Course Matrix for B.Sc. Economics Programme

Semester V

SL. No.	Course Code	Title of the Course	Category of Course	Teaching Hour per Week (L+T+P)	ESE	CIA	Total Marks	Credits
1.	S1 22 DC 501	Economics of Growth and Development	DSC-1	4+0+0	60	40	100	4
2.	S1 22 DC 502	Research Methodology	DSC-2	4+0+0	60	40	100	4
3.	S1 22 DC 503	Operation Research	DCS-3	4+0+0	60	40	100	4
4.	S1 22 DC 504	Data Analytics Using R Programming	DSC-4	4+ 0+0	60	40	100	4
5.	S1 22 DE 501	International Economics	DSE-1	3+0+0	60	40	100	3
6.		Stock Trading	SEC-VB	3+ 0+ 0	60	40	100	3
7		Internship		2 +0 +0				2
TOTAL								24

Course Matrix for B.Sc. Economics Programme

Semester VI

SL. No.	Course Code	Title of the Course	Category of Course	Teaching Hour per Week (L+T+P)	ESE	CIA	Total Marks	Credits
1.	S1 22 DC 601	Environmental Economics	DSC-1	4+0+0	60	40	100	4
2.	S1 22 DC 602	Behavioural Economics	DSC-2	4+0+0	60	40	100	4
3.	S1 22 DC 603	Contemporary Indian Economy	DCS-3	4+0+0	60	40	100	4
4.	S1 22 DC 604	History of Economic Thought	DSC-4	4+ 0+0	60	40	100	4
5.	S1 22 DE 601	Labour Economics	DSE-1	3+0+0	60	40	100	3
6.	S1 22 SE 601	Introduction to Python Programming and Machine Learning	SEC-VB	3+ 0+ 0	60	40	100	3
7		Internship		2 +0 +0				2
TOTAL								24

S1 22 DC 501: ECONOMICS OF GROWTH AND DEVELOPMENT

COURSE LEARNING OUTCOMES:

On successful completion of the module students will be able to:

- Understand the concepts of Economic Development and Economic Growth, and their distinctions and evaluate different measurement methods for economic development including HDI, Green GDP, GHI, and Gender Empowerment Index.
- Evaluate and recognize economic inequality in the context of development and its implications along with unemployment.
- Understand various models of development, it's relevance for the current economy.
- Analyse the various growth models which will enable conceptual clarity, reinforcing theoretical groundwork, and fosters critical thinking abilities.

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Module–1: Economic Growth And Development: Overview   6 Hrs

Meaning of Economic Development and Economic Growth - Values in Economic Development, Measurement – HDI, Green GDP, GHI, Gender Empowerment Index –Characteristics of Development – Characteristic Features of Developing countries – Factors facilitating development – Market imperfections

Module 2: Development Models   10 Hrs

Classical theory of development – Karl Marx – Rosenstein Rodan theory – Leibenstein critical minimum theory - Rostow – Luiz model of unlimited supply of labor – Schumpeter's theory

Module 3: Growth Models   15 Hrs

Harrod Domar model – Solow model – Balanced and Unbalanced strategy (Ragnar and Hershman)

Module 4: Poverty And Inequality   10 hours

Economic inequality and development, Vicious circle of poverty - Kuznets curve - Lorenz curve – Sen's capacity building – Case studies of various countries' experiences on poverty – Social Dualism-Gini coefficient

Module 5: Resources For Development   10 Hrs

Population and Human Capital Formation – Schultz model of human capital formation – Rural - urban migration - Formal and informal sector – Migration and development – Todaro model – Dual economy – Economic and social dualism

Skill Development:
- Analyzing and develop their ability to conduct research and analyze various economic development indicators such as HDI, Green GDP, GHI, and Gender Empowerment Index.
- Enhance their critical thinking skills by analyzing and evaluating different development models proposed by classical theorists such as Karl Marx, Rostow, and Schumpeter.
- Improve their mathematical and statistical analysis skills by studying growth models such as the Harrod Domar model and the Solow model.
- Cultivate empathy and deepen their understanding of poverty and inequality by analyzing case studies of various countries' experiences.

- Hone their problem-solving skills and engage in policy analysis by studying the relationship between population dynamics, human capital formation, and economic development.

Reference Books:
1. Meier, G. Economics of Development.
2. Todaro, M. P., & Smith, S. C. Economic Development (11th ed.). Pearson.
3. Ray, D. Development Economics. Princeton University Press.
4. Srivastava, O. P. Economics of Development and Planning.
5. Perkins, D. H., Radelet, S., & Lindauer, D. L. Economics of Development.
6. Haider, N. S. N. Economics of Development: Towards Inclusive Growth.
7. Singh, L., Joseph, K. J., & Johnson, D. K. N. Technology, Innovations & Economic Development: Essays in Honour of Robert E. Evenson. Sage.
8. Narula, U. Development Shock: Dynamics of India and Current developments. Atlantic.
9. Jhingan, M. L. The Economics & Development of Planning (40th ed.). Vrinda Publication.
10. Mishra, S. K., & Puri, V. K. Economics of Development & Planning: Theory & Practice. Himalaya Publication.
11. Lal, S., Rao, N., & Satyanarayane, T. Rural Development in the Era of Globalization

S1 22 DC 502: RESEARCH METHODOLOGY

Course Objective:
- To introduce the basic principles and procedure of research in social science
- To provide knowledge about qualitative and quantitative methods used in social science
- To develop the ability to formulate a clear and focused research question or problem.
- To critically evaluate different research designs and select the most appropriate for a specific research question.
- To master various data collection and analysis methods for quantitative and qualitative research.
- To effectively communicate research findings through written reports and presentations

Module 1: Introduction to Social Science Research   10 hrs
Meaning of Research, Objective and relevance of social science research - objectives and value in social science research scientific investigation, approaches to social science, theoretical empirical, applied and action research. Uni disciplinary and multidisciplinary methodologies

Module 2: Research Design   15 hrs
Meaning of Research Design, Guiding principles in the choice of research topic, formulation of research topic, formulation of research problem, role of review of literature, identification of research gap, need for the study, dependent and independent variable, formulating hypothesis, types of research design, exploratory, descriptive, diagnostic and experimental and hypothesis testing.

Module 3: Sampling   10 hrs
Concept of sampling population, sampling frame, sampling error, sample survey vs Census survey-characteristics of a good sample, probability and non- probability sampling techniques

Module 4: Data Collection and Data Preparation   15 hrs
Sources   of data-primary   and secondary,   observation, structured   and unstructured interview process, schedules and questionnaires. Editing, coding, Classification and Tabulation of Data, Data cleaning and Data Adjusting.

Module 5: Essentials of Research Papers   10 hrs
Layout of a Research Paper- Structure of Abstract and Keywords- Referencing styles and bibliography -Impact Factor of Journals- Ethical issues related to publishing- Plagiarism -Use of tools / techniques for Research: methods to search required information effectively, Reference Management Software like Zotero/Mendeley, Software for paper formatting like MS Office,

Software for detection of Plagiarism, SPSS- GenAI for Research

Skill Development

The students are expected to submit a research paper as part of the completion of the course.
1. Identify a research problem in your field of interest and formulate a clear research question.
2. Conduct a literature review on your chosen research topic.
3. Develop a research design for your research question, including data collection methods and sampling techniques.
4. Design a research instrument (questionnaire or interview guide) for your research.
5. Analyze a sample dataset using appropriate statistical methods (quantitative) or thematic analysis (qualitative).
6. Write a research report summarizing the research process, findings, and conclusions.
7. Prepare a presentation to communicate your research findings to a broader audience.

References

1. Kothari, C. R. Research Methodology: Methods and Techniques. New Age International Publishers.
2. Sinha, S. C., & Dhiman, A. K. Research Methodology. New Delhi Publishers.
3. Singh, Y. K. Fundamentals of Research Methodology. Sage Publications.
4. Kumar, R. Research Methodology: A Step-by-Step Guide for Beginners. APH Publishing.
5. Patnaik, U. C. A Text Book of Research Methodology. PHI Learning Private Limited.
6. Creswell, J. W. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications.
7. Cooper, D. R., & Schindler, P. S. Business Research Methods. McGraw-Hill Education.
8. Yin, R. Case Study Research: Design and Methods. Sage Publications.
9. Flick, U. An Introduction to Qualitative Research. Sage Publications.
10. Sekaran, U. Research Methods for Business. Wiley.

S1 22 DC 503: OPERATION RESEARCH

Course Objective:
This course delves into the world of Operations Research (OR)
- To equip the students with a powerful toolkit to tackling complex decision- making problems.
- To master the methodology of formulating and solving linear programming models
- To gain insights into transportation and assignment models which are critical for resource allocation.
- To be introduced to techniques like Simulation, PERT and CPM for multi-stage decision-making and analyzing complex systems.

Module 1: Introduction to Operations Research   6 hrs

Introduction, History of OR, Definition, Features, Methodology/ Approaches to OR, Types of Operation Research Models, Tools of Operation research, Application of OR Techniques, Limitations**.**

Module 2: Linear Programming   14 hrs

Definition, Terminology and requirements, General Form of LP model, Applications of LP models, Formulation and Graphical presentation of LP models LPP-Simplex Method-Maximization and Minimization models, Description of special cases under LPP

Module 3: Transportation And Assignment Models   14 hrs
Formulation of Transportation problem, Basic Feasible solution- Northwest Corner Rule (NWCR), Least Cost and Vogel's Approximation Method, Optimal solution through MODI Method
Formulation of Assignment model, Hungarian Model for solving Assignment problem

Module 4: Queuing Theory   6 hrs
Introduction, Features of Queuing Theory, Assumptions, Service systems, Single server queuing models, Multi-server queuing models

Module 5: Simulation   10 hrs
Meaning of simulation, Steps in simulation, Advantages and Disadvantages, Monte Carlo Simulation Technique, Business Simulation, Simulation and Inventory Control, Simulation and Financial Decision Making

Module 6: Network Analysis: Pert and CPM   10 hrs

Programme Evaluation and Review Technique (PERT): objectives, Assumptions, terminology, errors in network, rules to frame Networks, Creating Networks, Activity times and Critical Path, Slack and Float, Project Variance, merits and demerits, Project Cost Analysis Critical Path Method (CPM): Time estimations in CPM, limitations

Course Outcomes
1. Apply OR principles to real-world scenarios.
2. Formulate linear programming models for maximising or minimising objectives.
3. Design transportation models for logistic planning and resource allocation.
4. Employ optimisation techniques to minimise transportation costs.
5. Solve assignment problems for optimal resource allocation with multiple constraints.
6. Analyse queuing systems to optimise service levels and resource allocation in different settings such as banking, call centres , etc.
7. Apply PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method) for project planning, scheduling, and risk management.
8. Construct project networks and calculate critical path and project duration to determine the most time-sensitive activities.

Skill Development
1. Practice identifying decision variables and constraints in real- world scenarios. Solving LPP using solver on EXCEL.
2. Develop the ability to formulate transportation models from given data on supply, demand, and transportation costs. Apply techniques like Vogel's Approximation Method to find feasible solutions.
3. Apply assignment models to solve problems in areas like job scheduling or task allocation.
4. Develop models to match volunteers with projects based on skills and interests, ensuring optimal project outcomes.
5. Design experiments to analyze the behavior of systems under different conditions (arrival rates, service times, resource levels).
6. Analyze queuing models to optimize the number of tellers and minimize waiting times for customers in a bank.
7. Apply PERT/CPM to schedule construction activities, track progress, and identify potential delays.

References
- Sharma, S. D., Ram, K., & Nath, N. Operations Research. Kedarnath Ram, Nath & Co.
- Sharma, J. K. Operations Research: Theory and Applications. Macmillan Publications India Ltd.

- Taha, H. A. Operations Research: An Introduction. Prentice Hall.
- Hillier, F. S., & Lieberman, G. J. Introduction to Operations Research. McGraw-Hill Education.
- Sharma, J. K. Operations Research: Theory and Applications. Macmillan Publishers India.
- Mohan, M. Operations Research: An Introduction. Sultan Chand & Sons.
- Kalavathy, S. Operations Research: Theory, Methods and Application. New Age International Publishers Ltd.
- Gupta, M. N., & Gupta, P. K. Operations Research: Concepts and Cases. Tata McGraw-Hill Education.
- Vohra, N. D. Operations Research: A Practical Approach. Everest Publishing House.

S1 22 DC 504: DATA ANALYTICS USING R PROGRAMMING

Course Objective

Develop proficiency in conducting exploratory data analysis (EDA) and utilizing data visualization techniques in R to extract insights and patterns from diverse datasets, ultimately aiding in informed decision-making processes in data analytics.

Course Outcomes:
- Understand the foundational aspects of data analytics.
- Identify basic R data structures relevant to modern data analysis.
- Use several tools for data preprocessing and interpretation.
- Apply statistical inference concepts, formulate hypotheses, and conduct various types of hypothesis tests using R programming.
- Perform regression and classification models using R, including fitting multiple linear regression and logistic regression models.

Module 1: Introduction to Data Analytics   8hrs
Foundational aspects of data analytics - definition and scope of data analytics, importance, and applications of data analytics, data types and data sources, data collection, cleaning and preprocessing techniques, exploratory data analysis (EDA) and data visualization techniques.

Module 2: Introduction to R   12 hrs
Introduction to R Programming Language, R Studio Environment, Basic Data Types: Numeric, Character, Logical, Basic Operations: Arithmetic, Logical, Relational, Introduction to Functions and Control Structures (if-else, loops), User defined function, Hands-on Exercises and Assignments

Module 3: Data Manipulations Using R   15 hrs
Data Structures: Vectors, Matrices, Lists, Data Frames: Creation, Manipulation, and Sub setting, Data Import and Export: CSV, Excel, Text files, Introduction to R Packages and Libraries, Data Visualization: Bar plot, pie chart, histogram, box-plot, and ggplot library, missing values and outliers a analysis, Hands-on Exercises and Assignments.

Module 4: Statistical Testing of Hypothesis Using R   15 hrs
Introduction to Statistical Inference, Hypothesis Formulation and Types of Hypothesis Tests, One-Sample and Two-Sample t-tests and Z-tests in R, Chi- Square Test of Independence, ANOVA (Analysis of Variance)

Module 5: Regression Analysis in R   10 hrs
Introduction to Regression Analysis, Fitting Simple Linear Regression and Multiple Linear Regression using R, Model Validation and Assumptions Checking using R, Fitting Logistic Regression for Binary Classification using R and testing the accuracy of the model.

Skill Component:
- Exploratory Data Analysis (EDA) and utilizing data visualization techniques to extract insights and patterns from data sets using R.
- Classification and Regression Analysis on R.
- Diagrammatic and Graphical representation of data using R.
- Conduct hypothesis tests using R, interpret results, and make informed decisions based on statistical inference.

References:
1. Provost, F., & Fawcett, T. Data Science for Business.
2. Wickham, H., & Grolemund, G. R for Data Science.
3. Wickham, H. Advanced R.
4. Bruce, P., & Bruce, A. Practical Statistics for Data Scientists.
5. Cameron, A. C., & Trivedi, P. K. Regression Analysis of Count Data.
6. Zuur, A. F., et al. A Beginner's Guide to R. Springer.
7. Spector, P. Data Manipulation with R. Springer.

S1 22 DE 501: INTERNATIONAL ECONOMICS

Course Objectives
To provide knowledge of fundamentals in international economic theory
To provide an understanding of the working of the internation economic Institution

Module -1 Theory of International Trade   10 hrs
Introduction- Difference between Inter-regional and International Trade- Adams Smiths' theory of Absolute Advantage-Ricardian theory of trade- Haberler's Theory- H.O theory of International trade- Leontief paradox- Factor price equalisation theorem

Module -2 Terms of Trade   8 hrs
Terms of trade, derivation of international trade-indifference curves-Offer curves and terms of trade, static and dynamic gains from trade.

Module -3 Trade Restrictions and Commercial Policies   8 hrs
Free Trade vs Protection, methods of restriction-tariff quotas and non-tariff barriers-partial equilibrium analysis -general equilibrium of a small country - effect of tariff-Dumping- anti-dumping measures-Exchange Control.

Module 4 Economics of Integration   10 hrs
Forms of economic operation-trade creation diverting of customs union, regional cooperation. World Bank, IMF and WTO-functions, International negotiations: GATT, Trips and Trims - Doha round

Module 5 Balance of Payment and Foreign Exchange Markets   9 hrs
Balance of payment -meaning and components-Disequilibrium in the balance of payments methods of correcting the BOP-foreign exchange rate of supply and demand of foreign exchange purchase power parity theory and DOP theory of foreign exchange rate

Course Outcome
- Understand the nature and scope of international economics, explain the Ricardo's theory of International trade
- Explain the different concepts of terms of trade
- Explain the structure of BOP, disequilibrium in BOP, causes of disequilibrium
- Describe the foreign exchange rate and determine its equilibrium exchange rate
- Explain the objectives of IMF and IBRD

Skill Development

1. List the variables that influence International Business decisions
2. Design the role of various international theories and their impact on international trade policy
3. Examine the forms of International Trade and its implication
4. Evaluate the Role of International Bodies in promoting the trade and Development of a country (s) in the context of Free Trade and Protection Regime

References

1. Petropoulou, D., & Vanags, A. International Economics. University of London, Subject Guide.
2. Sodersten, B. International Economics. Palgrave Macmillan.
3. Carbaugh, R. J. International Economics. South-Western College Publishing.
4. Krugman, P. R., & Obstfeld, M. International Economics: Theory and Policy. Pearson.
5. Cherunilam. International Economics. McGraw Hill Education.
6. Salvatore, D. International Economics. Wiley.

UG 21 VEC 021: STOCK TRADING

COURSE OBJECTIVE

This course enables students with the basic understanding of the stock markets and its functioning along with equipping them with the knowledge of trading and also to choose stocks using fundamental and technical analyses.

Module 1: Introduction to Financial System   4 Hrs

Overview of Financial System: Institutions, Markets, Instruments & Services - SEBI & RBI - Capital Markets – Primary Market: IPO: Types, Procedure & Participants – Types of Financial Instruments – Credit Rating

Module 2: Stock Market Participants   6 Hrs Regulatory Bodies:

SEBI & RBI – Depositories – Depository Participants – Brokers – Investors: Institutional & Retail Investors Stock Exchanges – Stock Market Indices

Module 3: Stock Trading   5 Hrs

Demat Account – Trading Account - Procedure for Trading – Types of Orders – Clearing & Settlement – Factors considered for choosing a Broker

Module 4: Fundamental Analysis   8 Hrs

Introduction – Factors considered for Fundamental Analysis: Economy, Industry & Company – Case-study Analysis using Screener (or any other platform)

Module 5: Technical Analysis   12 Hrs

Introduction – Dow Theory – Chart Types – Candle Stick Patterns – Support & Resistance – Technical Indicators: MACD, EMA, ROC, RSI & Stochastic Oscillators –Choosing Stocks using Technical Tools

Module 6: Derivatives Trading   10 Hrs

Introduction – Features of a Financial Derivative – Types of Financial Derivatives –Uses of Derivatives – Critiques of Derivatives - Forward Contract: Features, and Trading Mechanism – Futures Contracts: Features - Classification of Futures Contracts & Forward Trading Mechanism – Forward Prices vs Future Prices - Options – Moneyness of the Options – Intrinsic Value and Time Value - Pay-off for Options - Option Trading Strategies: Bullish strategies/Bearish strategies/Neutral strategy-any two strategies from each category

Skill Development

1. Investigate and present various aspects of capital markets, primary markets, IPO types, procedures, and participants.
2. Engage in a virtual stock trading simulation, applying knowledge about stock exchanges, stock market indices, and types of financial instruments.

3. Study SEBI, RBI, and their roles; analyze the functions of stock exchanges, depositories, and depository participants.
4. Participate in mock trading sessions to simulate real-life trading experiences, practicing different types of orders and their execution.
5. Engage in hands-on exercises related to clearing and settlement processes, ensuring understanding of trade finalization.
6. Analyze real-world charts applying Dow Theory, understanding various chart types and identifying patterns.
7. Practice identifying candlestick patterns like doji, hammer, etc., and learn their implications.
8. Work with technical indicators like MACD, EMA, ROC, RSI, and Stochastic Oscillators, applying them to historical data for trend analysis.

COURSE OUTCOMES
After completion of the course the students will be able to:

1. Understand capital markets, IPO procedures, stock exchanges, and financial instruments comprehensively.
2. Gain insights into regulatory bodies, stock market functions, depositories, brokers, and investor types.
3. Develop proficiency in trading procedures, order types, and clearing and settlement processes.
4. Master the fundamental analysis using Screener or any other platform
5. Master technical analysis basics, including Dow Theory, chart patterns, candlesticks, and key technical indicators' application
6. Master derivative trading and various strategies

BOOK FOR REFERENCE

- *Avadhani, Security Analysis & Portfolio Management, 12th Revised Edition, Himalaya Publishing House, 2020*
- *Bhalla, Security Analysis & Portfolio Management, 11th Revised Edition, S Chand Publication, India, 2020*
- *Murphy, J. J. (2023). Technical Analysis of the Financial Markets: A Comprehensive Guide to Trading Methods and Applications. New York Institute of Finance.*
- *Prasanna Chandra, Managing Investments, 6th Edition, McGraw Hill Education, 2021*
- *Punithavathy Pandian, Security Analysis & Portfolio Management, 5th Edition, Vikas Publishing House, 2013*

Semester		Course Code S1 22 DC 601	Course Title: Environmental Economics	Course Duration: 60 hrs	Course Type: DSC	Teaching Hours Per week: 4 hrs	Credits: 4
VI							

Course Objectives:	In this course on environmental economics, students will understand fundamental economic concepts relevant to the field. They will develop the ability to interpret the economic degradation of ecological resources, identifying both its causes and effects. Through critical examination of contemporary environmental issues, they will explore the tension between development and sustainable development. Using a neoclassical economic framework, students will enhance their skills in reading, writing, and analysing present-day environmental challenges. They will come to appreciate the necessity of valuing environmental resources and be able to evaluate the policy aspects of these issues. Furthermore, students will cultivate creativity by formulating solutions to complex environmental problems in the current context.		
Course Outcome	T 2	CO1	Describe economic concepts used in environmental economics.
	T 4	CO2	Interpret the economic degradation of environmental resources and identify its causes and effects.
	T4	CO3	Examine the conflict between development and sustainable development by reviewing current and contemporary environmental issues.
	T4	CO4	Analyse present environmental issues using the neoclassical framework.
	T5	CO5	Evaluate policy aspects of environmental issues.
	T6	CO6	Creatively providing solutions for complex environmental problems that are identified in the current context.

Module 1	Introduction To Environmental Economics	No of Hours: 10

Definition, nature and scope- need for a separate branch of study, transdisciplinary. Interaction between environment and economics, circular flow diagram with the environment as a resource provider. Decisions making relating to the environment-philosophical perspectives.

Module 2	Economic Efficiency and Markets	No of Hours: 10

Characteristics of goods- rivalry and excludability, nature of environmental goods. Market failure-causes- property rights -types- the tragedy of the commons; production and consumption externality Marginal Private Cost (MPC), Marginal Social Cost (MSC) and Marginal Private Benefit (MPB). MSB. Solutions to market failure- Coase theorem, taxes and subsidies. Government regulation and control measures-instruments (overview).

Module 3	Natural Resource Economics	No of Hours:

		10

Characteristics of natural resources. Economics of non-renewable resources- intertemporal dimension, discount rate; proven, potential, speculative. Resource exploitation and technological progress. Energy - sources, types, substitution crisis. Renewable resources - rate of reproduction, rate of harvest, sustainable yield. Economics of forestry and fisheries (concepts) blue economy.

Module 4	**Degradation Of Environment**	No of Hours: 12

Economic perspective on degradation, carrying capacity and assimilative capacity. Types, causes and consequences of environmental degradation- atmospheric, water, marine, noise, visual, and light. Degradation of land, deforestation, climate change- a global 'bad'. Environmental policies and legislations (overview).

Module 5	**Economic Valuation of Environment**	No of Hours: 8

Need to value the environment- total value framework components. Market-based method)

Module 6	**Sustainable Development**	No of Hours: 10

Development versus sustainable development. Human Development Index (HDI) versus Global Hunger Index (GHI). Links between environment and economic growth environmental Kuznets curve. Population and environmental distribution-poverty and affluence and environmental degradation, women, vulnerable groups, tourism, trade and migration. Economic growth and pollution: Brundtland Commission and concept of sustainability

Skill Development:		
1	Select a case study (e.g., deforestation, water pollution) and assess the economic impacts.
2	Debates on various environmental policies (e.g., carbon tax vs. cap-and-trade).
3	Conduct simulations where students represent different stakeholders (e.g., businesses, government, NGOs) in an ecosystem and try to address different ecological problems.
4	Field research on a local environmental issue, collecting data on economic impacts, community perspectives, and potential solutions.
5	Field research on a local environmental issue, collecting data on economic impacts, community perspectives, and potential solutions.
6	Invite economists, policymakers, or environmental activists to speak about their work.
7.	Conduct a mock environmental impact assessment for a proposed project (e.g., a new factory) and analyze potential economic benefits against environmental costs and recommend mitigation strategies.

Book for Reference:		
1	Muthukrishnan Subhashini (2015) Economics of Environment. Prentice Hall India Ltd.
2	Kolstad Charles D. (2006) Environmental Economics 1Ed, Oxford Publication.
3	Kadekodi G K (Ed) (2004). Environmental Economics in Practice. Oxford University Press
4	Bhattacharya N, Rabindra (2001) Environmental Economics- An Indian Perspective. Oxford University Press, Delhi.

5	Ram Prasad Sengupta (2001) Ecology and Economics, Oxford University Press.
6	Nick Hanley, Jason F. Shogren, Ben White (1997) Environmental Economics: In Theory and Practice, Macmillan.
7	Field Barry .C (1994) Environmental Economics an Introduction. McGraw Hill International Editions.

Mapping of CO and PO

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	L	L	M	M	H						H	
CO2	L		L		M	H			H			M
CO3	L	L		M	M		H					H
CO4	L		M	L	H			H				H
CO5	L			M	H		M		H			L
CO6	L	M		L		H		H				M

	Department of Economics Programme: BSC Economics					
Semester VI	Course Code S1 22 DC 602	Course Title: Behavioural Economics	Course Duration: 60 hrs	Course Type: DSC	Teachi ng Hours Per week: 4 hrs	Cre dits: 4
Course Objectives :	The course will enable students to critically examine the evolution of Behavioral Economics and its implications for neuroeconomics, cognitive and emotional biases, and mental accounting. It will also help the students understand the applicability of different theories in real-life scenarios.					
Course Outcomes	T2	CO1	Describe the evolution of Behavioural Economics and the basic concepts related to behavioural economics.			
	T4	CO2	Analyse the implications for neuroeconomics, Cognitive and emotional biases, and Mental Accounting.			
	T4	CO3	Examine the implications of Bounded rationality, Certainty/possibility effects, Dunning-Kruger effect, and Dual-system theory to mental accounting in the context of behavioural Economics.			
	T5	CO4	Evaluate the role of Heuristics, emotion, beliefs and institutions in investment decision-making.			
	T4	CO5	Compare and contrast the game theory strategies and their applicability to decision-making in the future.			
	T2	CO6	Discuss the Role of Nudge vs. Boost in shaping Consumer Decision-making in the Context of Strategic Interaction.			
Module 1	**Origin, Nature and Scope of Behavioural Economics**					No of Hours: 5
	Introduction to Behavioural Economics - Origins of Behavioural Economics – Homo-sapien vs Homo sapiens-relation with other disciplines - Methods, Objective and Scope - 4c's of Rationality- Neuro economics – Theory of Decision points- Money Illusion- Behavioural Science in Practice – Principles, agents and Rational Choice					
Module 2	**Basic Concepts of Behavioural Economics**					No of Hours: 10
	Bounded rationality -Introduction to Intertemporal Choice - Certainty/possibility effects – Dunning Kruger Effect- Choice architecture - Choice overload -effect of choice complexity- Strategies for navigating complex choices- making choice under risk- prospect theory and loss aversion- Self-control strategies					
Module 3	**Heuristics and Biases**					No of Hours: 12
	Heuristics - Simple heuristics for complex choices - Biases heuristics -- Biases in Behavioural Economics- Cognitive and emotional biases - IKEA effect - Licensing effect Judgement under risk and uncertainty - Role of emotion, beliefs and institution in decision-making					

Module 4	**Behavioural Game Theory**	No of Hours: 13
	Behavioural game theory- introduction-nature- equilibrium- dictator Game- -prisoner's dilemma-modelling of social preferences- nature and factors affecting social preferences- reciprocity models- policy implications.	
Module 5	**Strategic Intervention and Nudges**	No of Hours: 10
	Libertarian Paternalism- Nudge, Nudge vs. boost - Understanding Consumer decision-making using behavioural insights- Nudge and happiness, nudge and behaviour change, ethical considerations, behavioural insights for public policy- Cases to give insights into applied areas like Behavioural Marketing, Health Economics and Behavioural Finance.	
Module 6	**Experimentation in Behavioural Economics**	No of Hours: 10
	Basics of experimentation, building blocks of experiments, elements of experiments, types of experimental designs- before design, simple two-condition design, fully crossed design, analysis of experimental data, Decision Analysis and Intuition, Models of Intuitive Judgement-current trends and future directions in behavioural economics	
	Skill Development:	
1	Extrapolate any three pivotal concepts of Behavioural economics and formulate any four applications of them, keeping the present scenario in mind.	
2	Identify the behavioural patterns that enable individuals to attain outcomes when making decisions. Formulate a road and present it in the form of a report.	
3	Scrutinise the theory of Nudge and identify the concepts discussed in it	
4	Analyse the concept of strategic interactions and evaluate – (i) Mixed strategies (2) Bargaining (iii) Iterated games	
5	Create a custom economic model encompassing the factors affecting social preferences	
	Book for Reference:	
1	Bernheim, B. D., DellaVigna, S., & Laibson, D. (Eds.). (2019). Handbook of behavioral economics: Foundations and applications 2. Elsevier.	
2	Cartwright, E. (2018). *Behavioral economics* (3rd ed.). Routledge.	
3	Dhami, S. (2016). *The foundations of behavioral economic analysis*. Oxford University Press.	
4	Angner, E. (2016). *A course in behavioral economics* (2nd ed.). Palgrave Macmillan.	
5	Wilkinson, N., & Klaes, M. (2012). *An introduction to behavioral economics* (2nd ed.). Palgrave Macmillan.	
6	Kahneman, D. (2011). *Thinking, fast and slow*. Allen Lane, Penguin Books.	

7	Diamond, P. A., & Vartiainen, H. (Eds.). (2007). *Behavioral economics and its applications*. Princeton University Press.
8	Loewenstein, G. (2007). *Exotic preferences: Behavioral economics and human motivation*. Oxford University Press.
9	Altman, M. (Ed.). (2006). *Handbook of contemporary behavioral economics: Foundations and developments*. Prentice Hall India.

Mapping of CO and PO

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	L		M	L			M		H		H	
CO2		L	L	M				H		H	M	
CO3	L			L	M	H	H				M	
CO4	L	M	M		L			H				H
CO5	L	L		M	H		H				M	
CO6	L	M			M	H		H				L

	Department of Economics Programme: BSC Economics					
Semester **VI**	**Course Code** **S1 22 DC 603**	**Course Title:** Contemporary Indian Economy	**Course Durati on:** **60 hrs**	**Course Type:**	**Teachin g Hours Per week:** **4 hrs**	**Credit s:** **4**
Course Objectives :	The course on the Indian contemporary economy aims to provide students with a comprehensive understanding of the economic frameworks and concepts essential for analyzing India's economic structure. It will enable them to critically examine the country's growth and development trends and evaluate key sectors. Students will develop the analytical skills needed to assess contemporary economic challenges such as inflation, digital transformation, and the post-COVID recovery, ultimately fostering the ability to propose solutions and informed policy recommendations for India's future economic growth.					
Course Outcomes	T2	CO1	Explain the current problems of Indian Economy.			
	T4	CO2	Analyse the sector-specific policies adopted to achieve the aspirational goals.			
	T2	CO3	Discuss various economic policies adopted.			
	T4	CO4	Examine the history of Economic planning in India.			
	T2	CO5	Review the sectoral reforms through LPG policy.			
	T4	CO6	Analyse the foreign trade components and trends of Indian Economy.			
Module 1	**LPG Policies and Economic Reforms**				**No of Hours: 5**	
	Pre-liberalisation Era-LPG-Economic reforms under the New economic policy – globalisation, privatisation, and liberalisation -Niti Aayog – functions and its role in India's economic development					
Module 2	**Economic Reforms in Agriculture and Food management**				**No of Hours: 10**	
	Green Revolution- Agricultural Finance- Agriculture price policy, minimum support price, procurement prices, issue price, zero hunger, public distribution system. MGNREGA-Agriculture and WTO- Food Security and Nutrition-Recent trends in Agriculture (overview)					
Module 3	**Industry, innovation, infrastructure**				**No of Hours: 10**	
	New Industrial Policy 1991- public sector reforms, privatisation and disinvestment, entrepreneurship– competition policy. Role of MNCs in industrial development-function of MSME- economic and social infrastructure-roads, railways, airports-Jan Dhan Yojana					
Module 4	**Banking and Finance**				**No of Hours: 10**	
	Banking privatisation, role of SEBI, tax expenditure- budgetary deficits-pension and fiscal reforms- Banking reforms - Finance Commission and its role - fiscal federalism- -public debt Management- insurance-Modern trends in the field of insurance-Financial inclusion and digital inclusion					
Module 5	**Monetary, Fiscal Policy and Foreign Trade**				**No of Hours: 15**	

	Monetary Policy – objectives, instruments Fiscal Policy- objectives, instruments Foreign Trade- India's foreign trade- volume, direction and composition (latest trends)- Foreign Direct Investment (FDI)- Meaning, trends and patterns- India's Balance of Payments since 1991- Free Trade Zones	
Module 6	**Sustainable Development Goals and Economic Development**	**No of Hours: 10**
	NITI Aayog and goals of SDG, programs of the govt- priorities of economic growth and employment, education, health and gender, energy security, poverty alleviation and income inequality (overview of different programs). Population and demographic dividend. Human Development Index, Hunger Index, and Gross Happiness Index.	
	Skill Development:	
1	Using case study analyse the U N sustainable development goals.	
2	Draft a diagrammatic representation of inflation rates for specific products using secondary data from websites.	
3	Using a chart to show the impact of MNREGA works.	
4	Using secondary data analyse India's direction of trade in the last 5 years.	
5	Using secondary data analyse India's trade volume in the last 5 years.	
	Book for Reference:	
1	Ramesh Singh. 2022 The Indian Economy, Tata McGraw Hill	
2	Byres Terence J. (ed.), (1998), The State, Development Planning and Liberalisation 'in India, Delhi	
3	Dutt Ruddar and K.P.M Sundaram (2011): Indian Economy, S Chand& Co. Ltd. New Delhi	
4	Frankel Francine R., (2004), India's Political Economy, Delhi. Jenkins Rob, 2000, Economic Reform in India, Cambridge.	
5	Jalan, B. (1996), India's Economic Policy- Preparing for the Twenty-First Century, Viking, New Delhi.	
6	Joshi Vijaya and L.M.D. Little, (1998), India's Economic Reform 1991-2001, Delhi.	
7	Kapila Uma: Indian Economy: Policies and Performances, Academic Foundation.	
8	Mishra S.K & V.K Puri (2001) "Indian Economy and –Its development experience", Himalaya Publishing House.	
9	Mukharji Rahul (ed.) (2007), India's Economic Transition: The Politics of Reforms, edited by Rahul Mukherji, Oxford University Contemporary Indian Economics	
	Mapping of CO and PO	

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

	CO1	L	L	M		H				H		M	
	CO2	L			M	M			H				L
	CO3	L			M	L		H	H				M
	CO4	L	L	M		H		M				H	
	CO5		L	L	M	H			H			M	
	CO6		M	L	H		M	H					L

Department of Economics						
	Programme: BSC Economics					
Semester VI	**Course Code** S1 22 DC 604	**Course Title:** History of Economic Thought	**Course Duration:** 60 hrs	**Course Type:** DSC	**Teaching Hours Per week:** 4 hrs	**Credits:** 4
Course Objectives:		The course is designed to be intellectually stimulating and charts economic thought from mercantilism to the contemporary period. It is meant to create an understanding of the economic theory, ideas, doctrines, and postulates of the various schools of thought proposed and developed by various economists. Economic thought forms the basis of the ideology and policies adopted in different countries.				
Course Outcomes	T2	CO1	Identify the historical beginnings of economic theories, doctrines and postulates of the different schools of thought and chart out the developments over time.			
	T3	CO2	Relate the different economists with the various schools of thought.			
	T4	CO3	Examine the relationship between economic thought and other social science disciplines.			
	T5	CO4	Evaluate economic theories proposed by classical, Marxian and modern economists			
	T4	CO5	Analyse the role and contribution of Indian economic thinkers.			
	T5	CO6	Evaluate the contributions of Nobel Laureates who have shaped modern economics.			
Module 1	**Introduction and Early Economic Thought**					**No of Hours:** 10
	Meaning of Economic Thought, Nature and Methodological Approaches to History of Economics Thought- Importance of the History of Economic Thought - Mercantilism and Physiocrats. Early Indian Thought- Kautilya, Dadabhai Naraoji, Gopal Krishan Gokhale					
Module 2	**Classical Economic Thought**					**No of Hours:** 15
	Origin and growth of Classical Economy, Adam Smith: philosophy of naturalism- economic growth- Adam Smith and Underdeveloped countries Malthus: Principle of Population David Ricardo: Theory of Distribution, International Trade J.S Mill:					

	Political Philosophy and Economic Philosophy, Theory of Growth Reaction against Classical Economists	
Module 3	**Marxian Economics**	**No of Hours: 9**
	Marxian philosophy, Labour Theory of Value, Theory of Surplus value, and Theory of development, Marx and Orthodox economists, Marx and Underdeveloped Countries- Neo-Marxism	
Module 4	**Neo-Classical School**	**No of Hours: 11**
	Classical VS neo-classical Economics Jevons: Utility Theory of Value- Theory of Labour Supply- Theory of Capital Marshall: Economic Science and Economic Policy, On Value and Distribution- Tools of Analysis.	
Module 5	**Keynesian Philosophy**	**No of Hours: 5**
	J.M Keynes: General Theory of Employment, Interest and Money, Post Keynesian Development, Keynes and the Underdeveloped Countries. Economic thoughts of Kalecki and Joan Robinson	
Module 6	**Nobel Laureates in Economics**	**No of Hours: 10**
	Nobel Laureates and their contributions. Contributions of some Nobel laureates: Paul A. Samuelson, Simon Kuznets, Gunner Myrdal, Milton Friedman. Amartya Sen- Social Welfare and Economic Justice, Abhijit Banerjee- Poor Economics.	
	Skill Development:	
1	Debate on Mercantilism and Physiocrats focussing on different aspects.	
2	Case Study on Indian Economic Thought.	
3	Present critiques of modern capitalist economies using Marx's theories on surplus labour and value.	
4	Research other Nobel laureates and their contributions.	

5	Create a comparative analysis of different Economic Thinkers
	Book for Reference:
1	Deodhar, S. Y. (2023). *Economic Sutra: Ancient Indian antecedents to economic thoughts*. Penguin Business.
2	Skousen, M. (2016). *The making of modern economics* (3rd ed.). M.E. Sharpe.
3	Beaud, M., & Dostaler, G. (2005). *Economic thought since Keynes: A history and dictionary of major economists*. Routledge.
4	Backhouse, R. (1985). *A history of modern economic analysis*. Blackwell.
5	Schumpeter, J. A. (1954). *History of economic analysis*. Oxford University Press.
6	Schumpeter, J. A. (1951). *Ten great economists from Marx to Keynes*. Oxford University Press.
7	Seligman, B. (1962). *Main currents in modern economics*. The Free Press.
8	Bell, D. (1953). *History of economic thought*. Ronald Press.
9	Jhingan, M. L. (1997). *History of economic thought*. Vrinda Publications.
	Web Reference
10	Alex M. Thomas, Recent Histories of Indian Economic Thought, The History of Economic Thought, 2022, Volume 64, Issue 2, Pages 19-44, https://doi.org/10.5362/jshet.64.2_19, https://www.jstage.jst.go.jp/article/jshet/64/2/64_19/_article/-char/en
11.	https://www.researchgate.net/publication/229050509_Is_history_of_economic_thought_a_serious_subject
12.	Alessandro Roncaglia, The Wealth of Ideas, Cambridge University Press

Mapping of CO and PO

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	L		H		L	M	H				M	

	CO2	L	L			M		H	H				M
	CO3		M		H	M		L		H			L
	CO4	L	M		L		M		H			H	
	CO5		L		M	H		M		H			L
	CO6	L	L	M	M		H						H

		Department of Economics					
		Programme: BSC Economics					
Semester **VI**		**Course Code** **S1 22 DSE 601**	**Course Title:** Labour Economics	**Course Duration:** **45 hrs**	**Course Type:** **DSE**	**Teaching Hours Per week:** **3 hrs**	**Credits:** **3**
Course Objectives:	This course provides an in-depth exploration of labour market dynamics in developing countries, focusing on classical, neoclassical, and dualistic models to understand demand and supply forces. It examines labour as a production factor, covering absenteeism, unemployment, and migration theories. Students will also study wage determination theories, including classical and bargaining models, and address issues like fair wages and wage policies. The course explores industrial relations, trade unions, and dispute resolution methods, and investigates labour welfare and state policies, including social security measures and government policies on labour issues, with a focus on aligning with International Labour Organization standards.						
Course Outcomes	T4	CO1	Analyze Labour Market Dynamics: Evaluate the characteristics and functioning of labour markets in developing countries, using classical, neoclassical, and dualistic models to understand demand and supply factors				
	T4	CO2	Assess the functioning of demand and supply forces in the market: Interpret the role of labour in production, addressing issues like absenteeism, unemployment, and migration theories, and their implications for economic policy				
	T4	CO3	Assess the impact of migration on rural and urban areas: applying theoretical frameworks such as the Harris-Todaro Model and Lee's theory to assess the impact of migration on rural and urban areas, as well as evaluate the push and pull factors influencing migration decisions in various socio-economic contexts				
	T3	CO4	Apply Wage Determination Theories: Utilize various wage determination theories to analyze wage structures, fair wages, and the impact of wage policies across different sectors and demographic groups				
	T5	CO5	Evaluate Labour Welfare and State Policies: Analyze labour welfare programs, social security measures, and government policies affecting labour, including issues related to agricultural and child labour, and align with International Labour Organization standards				

Module 1	**Introduction to Labour Market**	No of Hours: 5
	Meaning and characteristics of labour-labour as a factor in production. Nature and characteristics of labour markets in Developing countries like India -. Absenteeism-Concept-Causes. Paradigms of Labour Market: Classical, Neo-classical and dualistic model.	
Module 2	**Demand for and Supply of Labour**	No of Hours: 10
	Analysis of demand-supply forces- Demand for Labour market relating to size and pattern of investment, choice of technology, and Government Labour policies and Their orientation. Supply of labour in relation to growth of Labour force - Labour Market process	
Module 3	**Unemployment and Migration**	No of Hours: 12
	Unemployment- concept-Types-Sources of Unemployment- Theory of Job search Migration and unemployment. Migration-Types- Lee's theory of Migration-Effects on Rural and Urban Areas. Migration Transition-The Aspirations-Capabilities Model. .	
Module 4	**Wage Determination: Theory and Practice**	No of Hours: 12
	Concepts of wages - fair, living- minimum problems of implementation of minimum wages. Wage determination by sectors - Urban and Rural Organised and Unorganised sectors. Wage and non-wage components of Labour recommendation. Wage and productivity and wage and inflation relationship - productivity and profit sharing schemes - case studies - wage policy in India.	
Module 5	**Labour Welfare and State**	No of Hours: 6
	Meaning, Definition, and Scope of Labour welfare-Types of Welfare services-Principles of labour welfare. Labour Code, Labour Policy in India-India and ILO. Social Security-Concepts (Social Insurance and Social Assistance) and Objectives-measures of Social Security in India. Government policy towards Labour and trade unions Agricultural Labour – Child Labour – Labour in Unorganised sectors - VRS Policy.	
	Skill Development:	
1	Labour Market Analysis Report	

2	Case Study on Labour as a Production Factor
3	Wage Determination Simulation
4	Industrial Relations and Trade Unions Project
5	Labour Welfare Policy Analysis and Critique.
6	Field Study on Migration Patterns

Book for Reference: (Strictly APA Format)

1. Bell, D.N.F., & Blanchflower, D.G. (2021). The Economics of Youth Unemployment: Theory and Evidence. Routledge.

2. Borjas, G.J. (2019). Labor Economics (8th Edition). McGraw-Hill Education.

3. Katz, L.F., & Autor, D.H. (Eds.). (2020). The Economics of Labor Markets (8th Edition). Routledge.

4. Jhabvala, R. & Subrahmanya, R.K. (Eds.) (2000). The Unorganised Sector: Work Security and Social Protection. Sage Publications, New Delhi.

5. Papola, T.S. & Rodgers, G. (Eds.). (1992). Labour Institutions and Economic Development in India. International Institute for Labour Studies, Geneva.

6. Solow, R.M. (1990). Labour Market as an Institution. Blackwell, London.

7. McConnell, C.R. & Brue, S.L. (1986). Contemporary Labour Economics. McGraw-Hill, New York.

8. Rosenberg, M.R. (1988). Labour Markets in Low Income Countries, In Chenery, H.B. and T.N. Srinivasan, (Eds.), The Handbook of Development Economics. North-Holland, New York.

Mapping of CO and PO

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	L	M	M	L			H					H
CO2	L	L		M				H	H		M	
CO3	L	M					H	H			M	L
CO4	L	M			L	M	H				H	M
CO5	H	M	L	L		M			H			L
CO6	L	L		L		M		H		H		