



**BACHELOR OF SCIENCE IN
ECONOMICS (BSc. ECONOMICS)**

(AS PER NEP 2020)

**PROGRAMME STRUCTURE &
SYLLABUS**

Effective from Admission Batch 2025

Approved by Board of Studies

16 May 2025

Birla School of Economics

Birla Global University

IDCO Plot - 2, Gotha Patna, Bhubaneswar -751029,

Odisha

www.bgu.ac.in

Telephone: 0674 -71030

TABLE OF CONTENT

SL. NO	CONTENT	PAGE NO
PART-I		
1	About the University	i
2	About Birla School of Economics	ii
3	Academic Programs Offered	ii
4	About BSc. Economics Program	ii
5	The Programme Highlights	iii
6	Three Year BSc. Economics Programme	vi
7	Four Year BSc. Economics (Hons./ Hons. with Research) Programme	vi
8	Outcome Based Approach to Education (OBE)	vi
9	Graduate Attributes	vii
10	Program Outcomes (POs)	viii
PART-II		
12	Program Structure & Credit Distribution	1
13	Detailed Syllabus	3

PART I

1. About Birla Global University

Birla Global University (BGU), recognized as one of the best private universities, is a self-financed private unitary University and has been established by the enactment of Birla Global University Odisha Act, 2015 with its main campus spread over an area of nearly 30 acres of land situated at IDCO Plot No.2, Gothapatna, and Bhubaneswar. As per the Act, the management of the university is carried out by a Board of Governors headed by Smt. Jayashree Mohta, Chairperson, and Birla Academy of Art & Culture being the main promoter of Birla Global University. Honorable Governor of Odisha is the Chancellor of the University.

The University has been established with a goal to be the best destination for aspiring new-gen professionals. It is committed to redefine 'quality' in education with state-of-the-art facilities, best of the infrastructure and finest faculty. Presently, the University operates with seven schools i.e., Birla School of Economics, Birla School of Management, Birla School of Communication, Birla School of Commerce, Birla School of Law, Birla School of Applied Sciences and Birla School of Engineering & Technology

Vision

To create and disseminate knowledge in global context while pursuing Excellence, Innovations and Inclusiveness.

Mission

- M1.** To globalize through international collaborations and exchange of students and faculty.
- M2.** To strive for excellence in teaching and research.
- M3.** To continuously innovate pedagogy and course content.
- M4.** To encourage diversity and inclusiveness.

2. About Birla School of Economics

The Birla School of Economics is dedicated to provide cutting-edge education in the area of economics. The school focuses on skill development with a blend of theory and practice to prepare students for professional career and social participation. The course curriculum encourages students for doing projects and writing their research article. It provides an opportunity to study interdisciplinary courses.

Vision of the School

To be a globally reputed institute in humanities and social science teaching, research and consultancy fostering innovation and entrepreneurship for developing socially responsible leaders. To create and disseminate knowledge pursuing excellence with ethics for inclusive social development

Mission of the School

- M1.** Imparting global standard quality teaching and developing research orientation for understanding social issues for providing effective policy solution.
- M2.** Collaborate with International institutions and institutes of repute for multidisciplinary students and faculty exchange for fostering cutting edge research in wider learning environment.
- M3.** Regularly updating course content with innovative pedagogy of teaching and learning
- M4.** Preparing and encouraging students for handling diverse problems addressing inclusiveness.

2.1. Academic Programs Offered

- Bachelor of Science in Economics (BSc. Economics)
- Master of Science in Financial Economics (MSc Financial Economics)
- Doctoral Program (Ph.D. in Economics)

3. About BSc. Economics Program

3.1. Description of the Program (As per NEP 2020)

- As per the National Education Policy (NEP) 2020, BSc. Economics program is designed as a holistic and multidisciplinary undergraduate education program. The program aims to improve intellectual, aesthetic, social, ethical and moral capacities in the students with a number of relevant skills like IT and Soft Skills in addition to having various specializations in the chosen field like Econometrics, Mathematical Economics, Energy Economics, Environmental Economics, Finance and Business Analytics etc.
- The program will be of 3 or 4 years duration with multiple exit and entry options. Students of this program can exit after 1st year with a certificate, after 2nd year with an Advanced Diploma, after 3rd year with a Bachelor's Degree. After 4th year, a student can be awarded with Bachelor's Degree (Honors). Bachelor's Degree (Honors) with Research will be awarded, in case a student secures 75% and above in all semesters.

- Students will be given opportunities for multidisciplinary and interdisciplinary education through options to choose courses of their interests from other schools within the university.
- The total credits for 3-year BSc. Economics will be minimum 120 credits and that for 4-year BSc. Economics (Hons with Research) degree, the minimum credits will be 160.
- The courses will have a balanced combination of knowledge, skills and employability components to cater to the future needs of the present generation.
- The relevant multidisciplinary courses are designed to address the learning interests of the students across the schools.
- 20% of the courses may be offered online from SWAYAM.
- Academic Bank of Credits (ABC) will be established to facilitate Transfer of Credits. The credits earned at various levels will get credited into a digitalized ABC. Students can use their earned credits to take admission in another institution to further continue their studies for the remaining year/s of their graduation.
- The Academic Calendar for this program of the university will be synchronized to allow students of a particular UG program to study a course or courses from another UG Program to meet the credit requirement of a semester. The commencement and closure of semesters and examinations for UG Program will be planned in a uniform manner for declaration of results and awarding grades after a semester/year.

3.2. The Programme Highlights

- **Immersion Course:** An immersion course is offered at the beginning of the program which covers the basics of Economic Principles, Mathematics and Quantitative Methods etc. The course includes morning yoga, meditation, various kinds of sports, and cultural activities to build up the concept of teamwork. The special attraction of this program is the theatre workshop ends with a stage performance (through drama) by different groups of students based on some important themes.
- **Type of Courses**

Discipline Specific Major Courses: There are 15 Discipline Specific Major Courses in a 3 year BSc. Economics Programme and 20 Discipline Specific Major Courses in a 4 year BSc. Economics program besides having 12 credits of research components to make a four-year program as BSc. Economics Honours with Research. In addition to that, Inter-disciplinary Minor courses, Vocational Education & Training, Ability Enhancement Courses, Skill Enhancement Courses,

Value-added Courses, and Community Engagement & Summer Internship courses make the BSc. Economics program a multidisciplinary and holistic program adhering to the NEP 2020's philosophy and the curriculum framework as directed by the UGC.

Multi-disciplinary Courses: The program offers 9 credits of the following multi-disciplinary courses from the disciplines of Management, Applied Science, Law & Communication to be offered by other schools of BGU/Domain

Vocational Education & Training Courses:

To make the students ready for the job market, the BSc. Economics program has offered Vocational Education and Training Courses such as: Entrepreneurship and others

Value-added Courses: Under Value-added courses, the program introduces courses in the first year of the programme:

- Environmental Science (EVS)
- Health and Wellness Courses
- Indian Knowledge System (IKS)

3.3. Pedagogy: The pedagogy adopted by the BSc. Economics (H) Programme is student-centric & scrupulously designed to involve academic seriousness and practical application which includes the following:

Lectures:

Faculty members use audio-visual teaching aids while delivering lectures to enhance the learning effectiveness among the students. The classroom teaching includes sessions by qualified and experienced faculty who are known for their dedication to teaching and research.

Online Classes:

Faculty at BGU are well equipped with the technology and expertise to conduct classes online using various virtual platforms like Microsoft-team, Google Meet, Zoom, etc.

Project Work:

The students are also given opportunities to learn the practical applications of management concepts and methods through projects. This forms a part of the internal evaluation in most of the courses.

Simulations:

The students are to be involved in simulation games, quizzes, role plays, etc. in order to develop analytical and decision-making capabilities. The students face in these simulation exercises, replicate the kind of situations they would face in the corporate environment.

Language Lab:

The cutting-edge language lab is very helpful for practicing and assessing the students' speech in English language. It provides facilities that allow the students to listen to model pronunciation, develop critical reading comprehension, and develop their oral and writing skills.

Case Studies:

The faculty members encourage students to go for case analysis in order to learn about different solution scenarios, and risk-taking behaviours and to develop proactive responses while facing innovative managerial issues. The decision-making process is made a part of the student's mind-set through cases.

Role Play:

Role play is a method for exploring the issues involved in complex business situations. A spirit of innovation, achievement, and commitment of a group of students for real business solutions is demonstrated in a dramatized form in the class.

Interaction with Industry Experts:

As a part of the academic activity, workshops, guest lectures, panel discussions, seminars, conferences, etc. are organized at regular intervals for the students inviting experts from the industry.

Experiential Learning:

At BGU, much emphasis is on experience and learning. Through live projects, Case study analysis, Internships and Summer Projects and Seminars, conferences and guest lecture the students are usually exposed to industry practices.

Summer Project:

Each student after completion of Semester-IV has to undergo six (6) weeks of a summer project in the local industry from 15 April-15 June. At the end of the summer project, each student is required to make a presentation and appear in viva-voce for evaluation. The students are expected to undertake field projects with utmost seriousness in order to gain practical exposure. The report developed during the period should highlight cross-sectional problems, and challenges, and suggest solutions.

Participation in Seminars:

Eminent guest speakers from different domains, both from industry and academia are invited to share their experiences with the students and encourage them to inculcate entrepreneurship. All students are required to participate in the business seminars. The student can also attend seminars, conferences, and workshops organized outside the university. They can write research papers either individually

or with any faculty and present the same in seminars and conferences. In an academic year, at least 2 National or International Seminars should be organized in which BSc. Economics (H) students can participate.

Co-curricular Activities:

The students are involved in various co-curricular activities organized by the different clubs of the university Marketing, Finance, HR, Operations, and Communication clubs.

4. Three Year BSc. Economics Programme:

The total credits for 3-year BSc. Economics will be of minimum 120 credits. Following types of courses will be offered for a 3-Year BSc. Economics Programme.

- 15 Discipline-specific Major Courses (60 credits)
- 6 Interdisciplinary Minor Courses (24 credits including 12 credit of Vocational Education & Training)
- 3 Multidisciplinary Courses (9 credits)
- 3 Ability Enhancement Courses (8 credits)
- 3 Skills Enhancement Courses (9 credits)
- 3 Value-added Courses (6 credits)
- 1 Internship (2 credits)
- 1 Community Engagement Project (2 credits)

5. Four Year BSc. Economics (Hons./ Hons. with Research) Programme

The 4-year BSc. Economics (Hons with Research) degree will be minimum 160 credits. Following types of courses will be offered for a 4-Year BSc. Economics (H)

Programme Courses:

- 20 Discipline-specific Major Courses (80 credits)
- 8 Interdisciplinary Minor Courses (32 credits)
- 3 Multidisciplinary Courses (9 credits)
- 3 Ability Enhancement Courses (8 credits)
- 3 Skill Enhancement Courses (9 credits)
- 3 Value-added courses (6 credits)
- 1 Internship (2 credits)
- 1 Community Engagement Project (2 credits)
- 1 Research Project with Dissertation (12 credits)

6. Outcome Based Approach to Education (OBE)

OBE is an educational model that forms the base of a quality education system. There is no specified style of teaching or assessment in OBE. All educational activities carried out in OBE should help the students to achieve the set goals. The faculty may adapt the role of an instructor, trainer, facilitator, and/or mentor based on the outcomes targeted. OBE enhances the traditional methods and focuses on what the institute provides to the students. It shows the success by making or demonstrating outcomes using statements 'able to do' in favor of students. It provides clear standards for observable and measurable outcomes.

7. Four Levels of Outcomes from OBE:

1. Program Educational Objectives (PEOs)
2. Program Outcomes (POs)
3. Program Specific Outcomes (PSOs)
4. Course Outcomes (COs)

8. Graduate Attributes

The graduate attributes include the learning outcomes that are specific to disciplinary areas relating to the chosen field(s) of learning within the broad multidisciplinary & interdisciplinary learning outcomes that graduates of all programs should acquire & demonstrate.

S. No.	GRADUATE ATTRIBUTES
1	Disciplinary Knowledge
2	Critical Thinking & Problem Solving
3	Creativity & Innovation
4	Effective Communication
5	Research related skills
6	Cooperation & Team Work
7	Global/Multicultural competence
8	Ethics & Human Values
9	Lifelong Learning
10	Leadership Readiness
11	Community Engagement & Social Responsibilities
12	Digital literacy

9. Program Educational Objectives (PEOs)

Program Educational Objectives (PEOs) are defined for the aspiring students about what they will achieve once they join the program. PEOs are about professional and career accomplishment after 3 or 4 years of graduation. PEOs are the written statements taken from different aspects like Knowledge, Skills & Ethics with focus on Career, Competency and Behavior. Five PEOs are recommended for BSc. Economics (H) program.

10. Program Outcomes (POs)

PROGRAM EDUCATIONAL OUTCOMES (PEOs)	
PEO1	To make economics graduates conceptualize and acquire knowledge of economic policy and business management
PEO2	To promote problem-solving & critical thinking by way of enabling economics graduates to come out with possible and innovative solutions for real-world problems
PEO3	To ignite a spirit of enquiry and entrepreneurship by orienting them in the application of modern tools of management for analysis & decision-making
PEO4	To inculcate a spirit of ethics, life-long learning and social engagement in all spheres of life
PEO5	To develop the skills for collaboration, creativity and communication

A program outcome is broad in scope and defines what the students will be able to do at the end of the programme. POs are defined line with the graduate attributes as specified in the UGC. POs are to be specific, measurable and achievable. In the syllabus book given to students, there is a clear mention of course objectives and course outcomes along with the CO-PO mapping matrix for all the courses.

PROGRAM OUTCOMES (POs)	
PO1	Acquire knowledge in economic concepts and current practices
PO2	Apply problem-solving and critical thinking skills to provide viable solutions for the society
PO3	Demonstrate effective communication skills in academic & professional contexts
PO4	Apply analytical and statistical tools for research and publication
PO5	Demonstrate the ability to collaborate with others and work in a team
PO6	Explain and illustrate the importance of ethical conduct in personal and professional life
PO7	Apply specific methods and tools of economics to solve social, economic and business problems for solution and policy recommendation
PO8	Appreciate and demonstrate creativity and life-long learning in the context of business strategies

11. Program Specific Outcomes (PSOs)

Program Specific Outcomes (PSOs) are statements that describe what the graduates of a specific program should be able to do. Lists of 3 PSOs have been defined for the BSc. Economics (H) program.

PROGRAM SPECIFIC OUTCOMES (PSOs)	
PSO1	Demonstrate knowledge of cutting edge economic concepts through experiential learning
PSO2	Apply analytical and problem-solving skills to solve socio-economic issues
PSO3	Develop new dimensions of interdisciplinary knowledge to cater the need of the industry and society

12. Mapping of PEOs with POs

MAPPING OF PEO WITH PO								
PEO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
PEO1	H	H	H	M	M	M	M	H
PEO2	H	H	L	M	M	L	M	H
PEO3	H	M	L	H	M	M	H	H
PEO4	H	M	L	L	M	H	L	H
PEO5	H	M	H	L	H	M	L	H

Level of correlation: 3-High, 2-Medium, 1-Low can be used

PART-II

12. PROGRAM STRUCTURE & CREDIT DISTRIBUTION

Draft Program Structure for BSc. Economics, BSc. Economics (Hons.)

and BSc. Economics (Hons.) with Research

(As Per NEP 2020 Guidelines)

Year	Semester	Disciplinary Major/Core	Interdisciplinary Minor	Multidisciplinary	Ability Enhancement Course(AEC)	Skill Enhancement Course(SEC)	Value Added Course (VAC)	Project/ Internship	Total	Certificate/Degree
Year-I	1	1. Microeconomics – I (4)	1. Introduction to statistics (4)	Course-1 French Language (3)	Course-1 English Language and Communication (3)	Course-1 IT and Analytics (3)	Course-1 1.Environmental Science/Education(2) 2. Health and Wellness(1)		20	Certificate (After Completing Project)
	2	1. Macroeconomics – I (4)	2. Intermediate Statistics (4)	Course-2 French Language (3)	Course-2 Cyber Security (3)	Course-2 Programming Skills (3)	Course-2 Indian Knowledge System(IKS) (3)		20	
Year- II	3	1. Microeconomics – II (4) 2. Mathematics for Economics-I (4)	1. Financial Markets & Institutions(4)	Course-3 Introduction to Artificial Intelligence (3)	Course-3 Entrepreneurship (3)	Course-3 Econometrics Lab-I- Excel and Data Visualization (2)			20	Advanced Diploma
	4	1. Macroeconomics - II (4) 2. Mathematics for Economics- II (4) 3. Money and Banking (4) 4. Economics of Growth and Development-I(4)	1. Research Methodology and Academic Report Writing (4)						20	
Year- III	5	1. Indian Economy-I (4) 2. International Economics –I (4) 3. Economics of Growth and Development-II (4) 4. Basic Econometrics (4)				Course-4 Econometrics Lab-II - Introduction to 'R' and SPSS (2)		Summer Internship and Community Engagement (2)	20	BSc. in Economics Degree
	6	1.Indian Economy-II (4) 2.International Economics-II (4) 3. Public Finance and Policy (4)	Choose 2 ((Each carry 4 Credit) 1. Business Environment 2. Operation Research 3. Digital Marketing 4. Management Information System						20	

Total Credit after 3 Years 120

	Semester	Major	Core Compulsory	Research	Total Credit	
Year- IV	7	<p><i>Choose any three (Each carry 4 Credit)</i></p> <ol style="list-style-type: none"> 1. Agricultural Economics 2. Environmental Economics 3. Gender Economics 4. Urban Economics 5. Law and Economics 6. Behavioral Economics 	<ol style="list-style-type: none"> 1. Applied Econometrics (4) 2. Data Analysis in Economics and Business Research (Lab Based) (4) 		20	BSc. in Economics (H) with Research
	8	<p><i>Choose any two (Each carry 4 Credit)</i></p> <ol style="list-style-type: none"> 1. Health Economics 2. Energy Economics 3. Political Economics 4. Game Theory and Optimization Technique 5. Industrial Economics 6. Financial Economics 		Research and Dissertation (12)	20	
Total Credit after 4 Years 120+ 40= 160						

Note: 1. The lists of electives are partial. 2. The credit of the course is mentioned in the parenthesis, 3. Students can choose the multidisciplinary course based on the list of courses offered by other schools. 4. Students who want to specialize in research at the undergraduate level must earn 75% mark or higher in the first six semesters

NOTE

AWRD OF DEGREE

1. Exit after 1st year and completing project- Certificate in Economics
2. Exit after 2nd year and completing project - Advanced Diploma in Economics
3. After completing 3rd year - BSc. Economics
4. After completing 4th year - BSc. Economics (Hons.)
5. After completing 4th year with 75% and above in all semesters – BSc. Economics with Research

13. DETAILED SYLLABUS

SEMESTER – I

Course	MICROECONOMICS -I	
Course Type	Disciplinary Major (Core)	
Code	BSCE01	
Credit	4 (3-T, 1-L)	
Semester	I	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> ● To introduce the basic principles of microeconomic concepts. ● To develop skills to understand economic issues ● To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic concepts of economics (CO1) ● Apply skills to analyze economic concepts for effective decision making (CO2) ● Analyze economic issues for strategic decision (CO3) ● Evaluate and demonstrate microeconomic conditions (CO4) ● Create analytical presentation on economic issues (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT I: Understanding the Subject Matter of Economics Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graph</p>	CO1

	<p>UNIT II: Supply and Demand Analysis Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity – price elasticity, Income and cross</p>	CO1
	<p>elasticity – meaning, determinants, computation and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets</p>	
	<p>UNIT III: Theory of Consumer Choice The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; derivation of demand curve; labour supply and savings decision - choice between leisure and consumption</p>	CO2
	<p>UNIT IV: The Firm and Market Structure Cost concepts; production and costs; various types of cost – fixed and variable cost, average and marginal cost; cost curves and their shapes; costs in the short and long run, economies and diseconomies of scale Firms in competitive markets – meaning of competitive market; profit maximization and the competitive firm's supply curve; the marginal cost curve and the firm's supply decisions; firm's short run decision to shut down; firm's long run decision to exit or enter a market; supply curve in a competitive market – short run and long run</p>	CO2,CO3
	<p>UNIT V: Input Markets Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets, Equilibrium in the labour market; other factors of production – land and capital; linkages among factors of production</p>	CO4,CO5

Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation: 60 marks
Suggested Readings:	Text books: 1. N. Gregory Mankiw, Economics: Principles and Applications, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 12th edition, 2022 Reference Books: 1. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 14th Edition, 2022. 2. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc. (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks****End Semester Examination (ESE)- 60 Marks**

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

SEMESTER – II

Course	MACROECONOMICS -I	
Course Type	Disciplinary Major (Core)	
Code	BSCE02	
Credit	4 (3-T, 1-L)	
Semester	II	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> ● To introduce the basic principles of macroeconomic concepts. ● To develop skills to understand economic issues ● To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic concepts of macroeconomics (CO 1) ● Apply skills to analyze macroeconomic concepts for effective decision making (CO 2) ● Analyze macroeconomic issues for strategic decision (CO 3) ● Evaluate and demonstrate macroeconomic conditions (CO 4) ● Create analytical presentation on macroeconomic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT –I Principles of Macroeconomics Market forces of Demand and Supply (Elasticity Application), Markets and Economic Welfare, Overview of Macroeconomics and Circular Flow of Income Model</p>	CO1
	<p>UNIT- II National Income Accounting and Macroeconomic Aggregates Economy ‘s Income and Expenditure, Measuring National Output (MacroeconomicData), Methodsof GDP Accounting and GVA Approach, Inflation and Unemployment Control, Measures (CPI, WPI, Philips Curve, Okun ‘s Law)</p>	CO1
	<p>UNIT–III Measuring Economic Activity and Welfare Measuring Economic Activity and Welfare Green GDP, HDI, EoDB, Make in India impact (MII) and Index of Industrial Production (IIPs)</p>	CO2

	<p>UNIT-IV: Consumption and Investment and Business Fluctuations Theory of Aggregate Demand and Aggregate Supply, Keynesian Theory and Modern Macroeconomists, The Multiplier Model, IS-LM Theory and Application (Open Economy through Mundell- Fleming).</p>	CO2, CO3
	<p>UNIT -V: Money, Banking, and Financial Markets. Central Banking and Monetary Policy, RBI Mid Term Review Analysis, Financial Crisis in Global Economy, Fundamentals of Finance and Financial Instruments (Secondary Market Trading).</p>	CO4, CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 1. Mankiw, N. Gregory (2022). Principles of Macroeconomics (15th Ed.). Cengage <p>Reference Books:</p> <ol style="list-style-type: none"> 2. Samuelson, Paul A., & Nordhaus W. (2009). Economics (19th ed.). McGraw-Hill. 3. Hubbard, R.G. & O'Brien A.P. (2015). Economics (5th Ed.). Pearson. 4. UNDP reports and RBI policy reports (To be circulated time to time) 5. Edward Shapiro (2013): <i>Macroeconomic Analysis</i>, Galgotia Publications. 	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PS O3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/ GD etc. (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

SEMESTER – III

Course	MICROECONOMICS-II	
Course Type	Disciplinary Major (Core)	
Code	BSCE03	
Credit	4 (3-T, 1-L)	
Semester	III	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> ● To introduce the advance principles of microeconomic concepts. ● To develop skills to understand economic issues ● To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the advance concepts of advance micro economics (CO1) ● Apply skills to analyze economic concepts for effective decision making (CO2) ● Analyze economic issues for strategic decision (CO3) ● Evaluate and demonstrate advance microeconomic conditions (CO 4) ● Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	Microeconomics-I	
Course Outline	Description	CO Mapping
	<p>UNIT I: Monopoly and Imperfect Competition Barriers to Entry, Profit Maximization and Output Choice, Monopoly and resource Allocation, Monopoly, Product Quality and Durability, Price Discrimination, Second Degree Price Discrimination through Price Schedules, Regulation of Monopoly, Dynamic Views of Monopoly; Short-Run Decisions: Pricing and Output, Longer-Run Decisions: Investment, Entry and Exit,</p>	CO1
	<p>UNIT II: Monopolistic Competition and Oligopoly Equilibrium in monopolistic competition – short run and long run, Product Differentiation, oligopoly – choosing a strategy; quantity and price leadership; simultaneous quantity setting, example of Cournot equilibrium, simultaneous price setting, collusion</p>	CO1, CO2

	<p>UNIT III: The Partial Equilibrium Competitive Model Market Demand, Timing of the Supply Response, Pricing in the Very Short-Run, Short- Run Price Determination, Shifts in Supply and Demand Curves – a Graphical Analysis, Mathematical Model of Market Equilibrium, Long-Run Analysis: Long-Run Equilibrium- Constant Cost Case, Shape of the Long-Run Supply Curve, Long-Run Elasticity of Supply, Comparative Statics An analysis of Long-Run Equilibrium, Producer Surplus in the Long- Run, Economic Efficiency and Welfare Analysis, Price Controls and Shortages, Tax Incidence Analysis</p>	CO2
	<p>UNIT IV: General Equilibrium and Welfare Perfectly Competitive Price System, A Graphical Model of General Equilibrium with Two Goods, Comparative Statics Analysis, General Equilibrium Modelling and Factor Prices, A Mathematical Model of Exchange, A Mathematical Model of Production and Exchange, Computable General Equilibrium Models</p>	CO2, CO3
	<p>UNIT V: Game Theory The payoff matrix of a game, Nash equilibrium, mixed strategies, the prisoner ‘s dilemma, repeated games, enforcing a cartel, sequential games, a game of entry deterrence</p>	CO4, CO5
Pedagogy	Communicative Language Teaching includes techniques like role play, simulation, presentation, peer/group work, writing workshop	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation: 60 marks</p>	

Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 1. C. Snyder and W. Nicholson (2022): Microeconomic Theory: Basic Principles and Extensions, 15th Edition, Cengage Learning, Delhi, India. <p>Reference Books:</p> <ol style="list-style-type: none"> 1. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi. 2. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India). The workbook by Varian and Bergstrom may be used for problems.
----------------------------	--

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks****End Semester Examination (ESE)- 60 Marks**

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	MATHEMATICS FOR ECONOMICS I	
Course Type	Disciplinary Major (Core)	
Course Code	BSCE04	
Course Credit	4 (3-T, 1-L)	
Semester	III	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> • To familiarize the students on use of mathematical techniques and operations in economics • To initiate students into various economic and financial concepts which are amenable to mathematical treatment? • To develop a comprehensive set of tools and techniques for analyzing various forms of economic and financial problems with mathematical model • To focus on applications of mathematical techniques in the field of applied economics and financial. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • To exhibit a sound understanding of mathematical techniques applicable in financial and economic perspective. (CO1) • To apply the relevant mathematical tools and techniques for analyzing economics and financial problems. (CO2) • To analyze economic and financial problems in • Evaluate the outcome of various economic and financial decisions empirically. (CO4) • Design mathematical model for interpreting economic and financial issues (CO5) 	
Pre-Requisite	Basic Knowledge of Economics and Mathematics.	
Course Outline	Description	CO Mapping
	<p>UNIT I: Preliminaries Logic and proof techniques; sets and set operations; relations; functions and their properties; number systems</p>	CO1, CO2
	<p>UNIT II: Functions of One Real Variable Types of functions: quadratic, polynomial, power, exponential, logarithmic; Graphs and graphs of functions; limit and continuity of functions; limit theorems</p>	CO2, CO3
	<p>UNIT III: Derivative of a Function Rate of change and derivative; Derivative and slope of a curve; Continuity and differentiability of a function; Rules of differentiation for a function of one variable; Application-Relationship between total, average and marginal functions.</p>	CO2, CO3

	<p>UNIT IV: Derivative of a Multivariate function Higher-order Derivatives, Partial Derivatives; application of partial derivative in economics, constrain optimization, Application in Economics: Elasticity, Alternative measures of growth, Optimal Timing, Derivation of Cobb Douglas Production Function.</p>	CO2, CO3
	<p>UNIT V: Exponential and Logarithmic Functions in Economics Exponential and Logarithmic Functions; Solving Natural Exponential and Logarithmic Functions; Logarithmic transformation of Nonlinear Functions; Rules of Differentiation; Higher-order Derivatives, Partial Derivatives; Optimisation of Exponential and Logarithmic Functions; Logarithmic differentiation; Application of exponential and logarithmic function in economics.</p>	CO5, CO4
Pedagogy	Classroom Teaching includes techniques presentation, peer/group work, lecture, problem solving, group discussion.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation: 60 marks</p>	
Suggested Readings:	<p>Text Books:</p> <ol style="list-style-type: none"> 1. Bradley, T. (2013). <i>Essential Mathematics for Economics and Business</i>. London: John Wiley & Sons. 2. Dowling, E. T. (2012). <i>Schaum's Outlines-Introduction to Mathematical Economics</i>. (3rd ed.). New York: McGraw Hill. <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Chiang, A.C. & Wainwright, K. (2013). <i>Fundamental Methods of Mathematical Economics</i>. (4th ed.). McGraw Hill Education (India) Private Limited. 2. Roser, M. (2003). <i>Basic Mathematics for Economists</i>. (2nd ed.). New York: Routledge. 3. Sydsaeter, K. & Hammond, P. (2016). <i>Mathematics for Economic Analysis</i>. New Delhi: Pearson Education Inc. 	

Facilitating the Achievement of Course Outcomes (COs)

Sl. No	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Correlation level 1, 2 and 3 as defined below: “1” – Slight (Low)

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Assessment Pattern & Marks Distribution Continuous Internal Evaluation (CIE)- 40 Marks

Bloom’s Category	Presentation/Quiz/GD etc.(10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom’s Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

SEMESTER – IV

Course	MACROECONOMICS - II	
Course Type	Disciplinary Major (Core)	
Code	BSCE05	
Credit	4 (3-T, 1-L)	
Semester	IV	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> ● To introduce the advance principles of macroeconomic concepts. ● To develop skills to understand economic issues ● To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the advance concepts of macroeconomics (CO1) ● Apply skills to analyze economic concepts for effective decision making (CO 2) ● Analyze economic issues for strategic decision (CO 3) ● Evaluate and demonstrate microeconomic conditions (CO 4) ● Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	Macroeconomics-I	
Course Outline	Description	CO Mapping
	<p>UNIT I: Classical and Keynesian Macroeconomic Thoughts and the Fundamentals Classics Verses Keynes–classical macroeconomics, employment and output determination, Say ‘s law, the quantity theory of money, Keynes general theory – Main propositions, analysis of the labor market, Keynes criticism of the Say ‘s law and quantity theory of money, the orthodox Keynesian school, Underemployment Equilibrium and Wage Price Flexibility, The Phillips Curve</p>	CO1
	<p>UNIT II: Monetarist and New Classical Macroeconomic Thoughts The Orthodox Monetarist School, Reformulation of Quantity Theory, the expectations augmented Phillips curve analysis, New Classical Economics – The influence of Robert E Lucas Jr, the structure of new classical models – the rational expectation hypothesis and policy implications. Dynamic investment theory, investment subsidy, dynamic IS-LM model;</p>	CO1

	openeconomy and international financial markets, Dornbusch overshooting model	
	<p>UNIT III: Fiscal Policy The Goals of Macroeconomic Policy and of Policy Makers, The Budget and Automatic Fiscal Stabilizers, The Doctrine of Balanced Budget and Keynesian Objections; Concepts of Budget, Revenue and Fiscal Deficits, Fiscal Policy: Objectives and Limits to Discretionary Policy, The Crowding –Out Hypothesis and the Crowding – in Controversy Meaning</p>	CO2
	<p>UNIT IV: Monetary Policy Scope and Objectives of Monetary Policy, Instruments of Monetary Policy, the Transmission Mechanism of Monetary Policy, Rules vs. Discretion in Monetary Policy, Implications of Targeting the Interest Rate, Limits to Monetary Policy</p>	CO2,CO3
	<p>UNIT V: Open Economy Macroeconomics Balance of payments- Concept, Equilibrium and Disequilibrium, Measures to Correct Disequilibrium, Determination of Foreign Exchange Rate- the PPP Theory and its Implications, Fixed vs. Flexible Exchange Rates, The Short-run open economy Model,the basic Mundell-Fleming Model</p>	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 1. N. Gregory Mankiw (2019): Principles of Macroeconomics, 9th Edition, CengageLearning India Pvt. Ltd. <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Errol D’Souza (2020): <i>Macroeconomics</i>, 2nd Edition Pearson Education Asia, New Delhi. 2. N. Gregory Mankiw (2019): Principles of Macroeconomics, 9th Edition, CengageLearning India Pvt. Ltd. 3. Richard T. Froyen (2012): <i>Macroeconomics</i>, 10th Edition, Pearson Education Asia, New Delhi. 4. Rudiger Dornbusch, Stanley Fischer, Richard Startz (2013): <i>Macroeconomics</i>, 12th Edition, McGraw-Hill Education. 5. William H. Branson (1989): <i>Macroeconomics: Theory and</i> 	

	Policy, 3 rd Edition, Harper and Row.
--	--

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the advance concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing
 Level 5: Evaluating
 Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	MATHEMATICS FOR ECONOMICS II	
Course Type	Disciplinary Major (Core)	
Course Code	BSCE06	
Course Credit	4 (3-T, 1-L)	
Semester	IV	
Sessions	60 Hours(L-45-+T-15)	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> ● To familiarize the students on use of mathematical techniques and operations in economics ● To initiate students into various economic and financial concepts which are acquiescent to mathematical treatment? ● To develop a comprehensive set of tools and techniques for analyzing various forms of economic and financial problems with mathematical model ● To focus on applications of mathematical techniques in the field of applied economics and financial. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able</p> <ul style="list-style-type: none"> ● To Exhibit a sound understanding of mathematical techniques applicable in financial and economic perspective (CO1) ● To Apply the relevant mathematical tools and techniques for analyzing economics and financial problems (CO2) ● To Analyze economic and financial problems in mathematical form (CO3) ● Evaluate the outcome of various economic and financial decisions empirically (CO4) ● Design mathematical model for interpreting economic and financial issues (CO5) 	
Pre-Requisite	Basic Knowledge of Economics and Mathematics.	
Course Outline	Description	CO Mapping

	<p>UNIT I : Matrices and Determinants Matrices: concept, types, matrix algebra, transpose, inverse, rank; Determinants: concept, properties, solving problems using properties of determinants, solution to a system of equations - Cramer's rule and matrix inversion method. Input-Output Analysis using Matrices.</p>	CO1, CO2
	<p>UNIT II: Indefinite Integration Integration; Indefinite and Definite Integral; Riemann integral; Numerical methods of evaluating the integral; Rules of Integration; Integration by substitution; Integration by Parts; Economic Implication</p>	CO2,CO3

	<p>UNIT III: Definite Integration Area between Curves; Improper Integrals; L'Hôpital's Rule. Areas under curve-Definite and indefinite Integration, Application- Consumer Surplus and Producer Surplus, The Definite Integral and Probability.</p>	
	<p>UNIT IV: First-Order Differential Equations Definitions and Concepts, General Formula for First-Order Linear Differential Equations, Exact Differential Equations and Partial Integration, Integrating Factors, Rules for the Integrating Factor, Separation of Variables, Economic Applications, Phase Diagrams for Differential Equations.</p>	CO2,CO3
	<p>UNIT V: First-Order Difference Equations Definitions and Concepts, General Formula for First-Order Linear Difference Equations, Stability Conditions, Lagged Income Determination Model, The Cobweb Model, The Harrod Model, Phase Diagrams for Difference Equations.</p>	CO2,CO3
Pedagogy	Classroom Teaching includes techniques presentation, peer/group work, lecture, problem solving, group discussion.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Books:</p> <ol style="list-style-type: none"> Bradley, T. (2013). <i>Essential Mathematics for Economics and Business</i>. London: John Wiley & Sons. Dowling, E. T. (2012). <i>Schaum's Outlines-Introduction to Mathematical Economics</i>. (3rd ed.). New York: McGraw Hill. <p>Reference Books:</p> <ol style="list-style-type: none"> Chiang, A.C. & Wainwright, K. (2013). <i>Fundamental Methods of Mathematical Economics</i>. (4th ed.). McGraw Hill Education (India) Private Limited. Roser, M. (2003). <i>Basic Mathematics for Economists</i>. (2nd ed.). New York: Routledge. Sydsaeter, K. & Hammond, P. (2016). <i>Mathematics for Economic Analysis</i>. New Delhi: Pearson Education Inc. 	

Facilitating the Achievement of Course Outcomes (COs)

Sl. No	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the advance concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, Case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Correlation level 1, 2 and 3 as defined below: "1" – Slight (Low)
 "2" – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course	MONEY AND BANKING	
Course Type	Disciplinary Major (Core)	
Code	BSCE07	
Credit	4 (3-T, 1-L)	
Semester	IV	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the basic principles of money and banking. • To develop skills to understand money and banking issues • To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic concepts of money and banking (CO 1) • Apply skills to analyze money and banking concepts for effective decision making (CO 2) • Analyze economic issues for strategic decision (CO 3) • Evaluate and demonstrate issues in money and banking (CO 4) • Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT I: Money: Theory and Approaches Money: Meaning, functions and classification, Role of money in capitalist, socialist and mixed economies, Monetary standards – Metallic and paper standards, system of note issues in India.</p>	CO1
	<p>UNIT II: Commercial Banking: Banking: Meaning and types of Banks. Functions of Commercial banks. Process of credit creation. Purpose and limitations. Liabilities and assets of banks. Commercial banking in India. Nationalization of commercial banks in India. Recent reforms in banking sector in India</p>	CO1

	<p>UNIT III: Central Banking: Functions of Central Bank. Quantitative and qualitative methods of credit control: Bank rate policy, Open market operations, Cash reserve ratio and selective methods. Role and functions of the Reserve Bank of India</p>	CO2
	<p>UNIT IV: Money And Capital Markets Structure and importance of Money Market. Indian Money market, Indian Capital Market,</p>	CO2,CO3
	<p>UNIT V: Monetary Policy: The Recent Issues Monetary Policy: objectives, Limitations of Monetary Policy with reference to India</p>	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> Hajela, T.N., (2009) Money and Banking, Ane Books Pvt Ltd., New Delhi <p>Reference Books:</p> <ol style="list-style-type: none"> Sundharam KPM, Banking: Theory, Law and Practice, Sultan Chand and Sons, New Delhi (recent edition) M.R. Baye, D.W. Jansen (1996), Money, Banking and Financial Markets, AITBS (Indian ed.) K.C. Sekhar: Banking – Theory and Practice, Vikas Publishing House, New Delhi (recent edition). 	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the advance concepts of economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3

CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate microeconomic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, Case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	ECONOMICS OF GROWTH AND DEVELOPMENT - I	
Course Type	Disciplinary Major (Core)	
Course Code	BSCE08	
Course Credit	4 (3-L, 1-T)	
Semester	IV	
Sessions	60 Hours(45 – L, 15-T)	
Course Objective	<p>The course will enable the students</p> <ul style="list-style-type: none"> • To develop students’; understand the alternative conceptions of development and their justification. • To improve the better understanding of aggregate growth models. • To strengthen the idea of different approach for measurement of development and the role of institutions. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Apply the skills of measurement of growth with purpose to be able to analyze economic theory (CO 1) • Apply the principles of economic development to understand human values (CO 2) • Determine the factors of lower economic growth and development in underdeveloped economies (CO 3) • Demonstrate the principles of human development for the well-being of citizens (CO 4) • Apply latest growth models to solve current economic crisis (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>Module I: Concept of Development Economic development, Economic growth and development, Factors affecting economic development, Obstacles to economic development, Indicators of economic development -National income, Per capita income; Basic needs approach, PQLI, HDI, GDI, Capital formation and economic development, Vicious circle of poverty, circular causation.</p>	CO1
	<p>Module II: Theories of Economic Development & Growth Classical theory Marxian theory of capitalist development, Schumpeterian theory of capitalist development, Harrod-Domar model of steady growth, Neo-Classical growth Model– Solow, Rostow’s stages of economic growth; The endogenous growth models, (Romar& Lucas), Human Capital & Growth. Evidence on the determinants of growth, Patterns of Economic Growth.</p>	CO2

	<p>Module III: Demography and Development Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; connections between income, mortality, fertility choices and human capital accumulation; migration.</p>	CO3
	<p>Module IV: Environment, Sustainable Development and Globalization Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change; Globalization in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalized world, Political Economy of Foreign Aid & Development</p>	CO4
	<p>Module V: Political Institutions and the Functioning of the State Public Goods and Economic Development, State ownership and regulation, government failures, Corruption and Development, The determinants of democracy; alternative institutional trajectories and their relationship with economic performance; within- country differences in the functioning of state institutions.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 1. Debraj Ray (2019): <i>Development Economics</i>, Oxford University Press. 2. Thirlwall, A. P. (1989). <i>Growth and development: with special reference to developing economies</i>. Springer. <p>Reference Books:</p> <ol style="list-style-type: none"> 1. ParthaDasgupta (2007): <i>Economics, A Very Short Introduction</i>, Oxford University Press. 2. Abhijit Banerjee, Roland Benabou and DilipMookerjee (2006): <i>UnderstandingPoverty</i> Oxford University Press. 	

Facilitating the achievement of Course Outcomes (COs)

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO 1	PSO 2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks**

Bloom's Category	Presentation/Quiz/ GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

SEMESTER – V

Course	INDIAN ECONOMY-I	
Course Type	Disciplinary Major (Core)	
Code	BSCE09	
Credit	4 (3-T, 1-L)	
Semester	V	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> ● To orient students about the Indian economy ● To develop skills to understand Indian economic issues and challenges ● To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the problems and prospects of Indian economy (CO 1) ● Apply skills to analyze economic policies for effective decision making (CO 2) ● Analyze economic issues for strategic decision (CO 3) ● Evaluate and demonstrate Indian economic condition (CO 4) ● Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT I: Introduction to Indian Economy Indian economy in the Pre- British period - exploitation and under development in India; industries and handicrafts in Pre-British India, the land system and commercialization of agriculture, industrial transition, state policies and economic underdevelopment, the current state of Indian economy – natural resources, infrastructure, population</p>	CO1
	<p>UNIT II: Population and Human Development Population growth and economic development – size, growth and future of population, population and economic development, population policy, Demographic trends and issues- education; health and malnutrition; demographic dividend, human resource development – indicators and importance</p>	CO1

	<p>UNIT III: National Income in India – Past Growth and Current Challenges National Income in India trends, sectoral composition – trend and growth, regional disparities, savings, investment and growth linkage</p>	CO2
	<p>UNIT IV: Economic Planning in India Economic planning: Planning Commission and its functions, Planning exercises in India, Objectives, Strategies and achievements</p>	CO2,CO3
	<p>UNIT V: Current Challenges-Pandemic and Economic Scenario Poverty: definition and estimate, poverty line, poverty alleviation programs; Inequality: income and regional inequality – causes and corrective measures; Unemployment: concepts, measurement, types, causes and remedies; Environmental challenges: Land, water and air Pandemic-Covid-19-Socio economic impact, Migration and Reserves Migration, Sectorial Impact,</p>	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <p>1.S. K. Misra and V. K. Puri (2020): <i>Indian Economy – Its Development Experience</i>, Himalaya Publishing House, Mumbai</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. U. Kapila (2010): <i>Indian economy since Independence</i>. 2. Academic Foundation, New Delhi 3. S. Chakraborty (1998): <i>Development Planning: The Indian Experience</i>. Clarendon Press. 4. R. Dutt and K. P. M, Sundharam (Latest Year): <i>Indian Economy</i>, S. Chand & Company Ltd., New Delhi. 5. A. Panagariya (2008): <i>India: the Emerging Giant</i>, Oxford University Press, New York 6. S. Acharya and R. Mohan (Eds.) (2010): <i>India's Economy: Performance and Challenges</i>, Oxford University Press, New Delhi. 7. J. Ahluwalia and I. M. D. Little (Eds.) (1998): <i>India's Economic Reforms and Development: Essays for Manmohan Singh</i>, Oxford University Press, New Delhi. 	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the problems and prospects of Indian economy	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate Indian economic condition	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 & 5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creatin

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course	INTERNATIONAL ECONOMICS-I	
Course Type	Disciplinary Major (Core)	
Code	BSCE10	
Credit	4 (3-T, 1-L)	
Semester	V	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To orient student's concepts in international economics. • To develop skills to understand global economic issues • To inculcate ability to critically analyze market strategies for effective decision making and policy recommendation 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic concepts of international economics (CO 1) • Apply skills to analyze economic concepts for effective decision making (CO 2) • Analyze economic issues for strategic decision (CO 3) • Evaluate and demonstrate international economics conditions (CO4) • Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	UNIT I. Introduction and Classical theories of International Trade Importance of the study of International Economics; Theories of absolute advantage, comparative advantage; Haberler's modification of comparative advantage using opportunity cost; Theory of reciprocal demand and offer curve analysis.	CO1
	UNIT II: Modern theory of International Trade Factor Endowments and Heckscher-Ohlin theory of trade; Leontief Paradox, Factor price equalization Theorem, Gains from trade	CO1
	UNIT III: International Trade Policy Tariff: Partial Equilibrium analysis of Tariff, General equilibrium analysis of tariff, optimum tariff; Free trade versus Protection; WTO and India	CO2
	UNIT IV: Exchange Rate Concept; Demand for and Supply of foreign exchange, Exchange Rate Determination; Fixed versus Flexible exchange rate; Exchange rate under gold standard; Purchasing- Power Parity Theory	CO2,CO3

	<p>UNIT V: Balance of Payments Concepts and components of balance of trade and balance of payments; Equilibrium and disequilibrium in balance of payments; Various measures to correct deficit in the balance of payments; Depreciation vs Devaluation; Elasticity Approach Devaluation.</p>	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books: 1. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 13th edition, 2019</p> <p>Reference Books: 1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012. 2. Bo Sodersten and Geoffery Reed, International Economics, Mcmillan Press Ltd, 2011.</p>	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic concepts of international economics	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4

CO 4	Evaluate and demonstrate international economics conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc. (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5		5
Analyze			5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15

Course Name	ECONOMICS OF GROWTH AND DEVELOPMENT - II	
Course Type	Disciplinary Major (Core)	
Course Code	BSCE11	
Course Credit	4 (3-L, 1-T)	
Semester	IV	
Sessions	60 Hours(45 – L, 15-T)	
Course Objective	<p>The course will enable the students</p> <ul style="list-style-type: none"> ● To develop students', understand the alternative conceptions of development and their justification. ● To improve the better understanding of aggregate growth models. ● To strengthen the ideaof different approach for measurement of development and the role of institutions. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Apply the skills of measurement of growth with purpose to be able to analyse economic theory (CO 1) ● Apply the principles of economic development to understand human values (CO 2) ● Determine the factors of lower economic growth and development in underdeveloped economies (CO 3) ● Demonstrate the principles of human development for the well-being of citizens (CO 4) ● Apply latest growth models to solve current economic crisis (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	C O Mapping
	<p>Module I: Demography and Development Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; connections between income, mortality, fertility choices and human capital accumulation; migration</p>	CO1
	<p>Module II: Dualism and Economic Development Dualism – geographic, social and technological; the theory of cumulative causation (Myrdal); the regional inequalities in the context of economic development, the inverted U relationship, international inequality and the center periphery thesis; dependency, exploitation and unequal exchange, the dualistic development thesis and its implications</p>	CO2

	<p>Module III: Land, Labour and Credit Markets The Role of Agriculture in Development, The distribution of land ownership; land reform and its effects on productivity; contractual relationships between tenants and landlords; land acquisition; nutrition and labour productivity; informational problems and credit contracts; microfinance; interlinkages between rural factor markets. Credit Intermediation, and Poverty Reduction, Risk faced by poor</p>	CO3
	<p>Module IV: Individuals, Communities and Collective Outcomes Individual behavior in social environments, multiple social equilibria; governance in organizations and in communities; individual responses to organizational inefficiency</p>	CO4
	<p>Module V: Environment, Sustainable Development and Globalization Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change; Globalization in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalized world, Political Economy of Foreign Aid & Development</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 3. Debraj Ray (2019): <i>Development Economics</i>, Oxford University Press. 4. Thirlwall, A. P. (1989). <i>Growth and development: with special reference to developing economies</i>. Springer. <p>Reference Books:</p> <ul style="list-style-type: none"> ● ParthaDasgupta (2007): <i>Economics, A Very Short Introduction</i>, Oxford University Press. ● Abhijit Banerjee, Roland Benabou and DilipMookerjee (2006): <i>UnderstandingPoverty</i> Oxford University Press. 	

Facilitating the achievement of Course Outcomes (COs)

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role played activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO 1	PSO 2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks**

Bloom's Category	Presentation/Quiz/ GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	BASIC ECONOMETRICS	
Course Type	Disciplinary Major (Core)	
Course Code	BSCE12	
Course Credit	4 (3-T, 1-L)	
Semester	V	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> • To discuss the measurement of economic relationships and forecast the economic variables. • To improve the students' abilities on formulation and specifications of econometric models, estimating and testing of the models. • To use of such models in economics and other related fields. The practical data set will be used for their hands on exercise. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able</p> <ul style="list-style-type: none"> • Understand Basic econometric techniques (CO1) • Apply various basic econometrics models in economics and financial issue (CO2) • Analyze simple economic issue with empirical investigation (CO3) • Evaluate the outcome of various economic and financial decision empirically (CO4) • Develop econometric concepts and interpretation (CO5) 	
Pre-Requisite	Basic Knowledge of economics and mathematics.	
Course Outline	Description	CO Mapping
	<p>UNIT I: Random Variables Meaning and Scope; Difference between Mathematical and Econometric Model; Regression Vs Causation; Endogenous and Exogenous Variables; Nature and Sources of Data; Significance of Stochastic Term; Applications of Econometrics in Economics</p>	CO1, CO2
	<p>UNIT II: Linear Regression Model Two variable linear regression model its Assumptions, Estimation of Parameter; Properties of Estimators- Gauss Markov Theorem; Inference about the Parameters; Analysis of Variance, Prediction Module</p>	CO1, CO2

	<p>UNIT III: Multi Variables Regression Analysis The K- Variable LRM- Matrix Approach to LRM – its Assumptions, Estimation of Parameter; Properties of Estimators- Gauss Markov Theorem; Inference about the Parameters; Analysis of Variance, Prediction; Coefficient of Determination; Adjusted coefficient of Determination; Polynomial Regression Model</p>	CO1, CO2
	<p>UNIT IV: Relaxing the Assumptions of The Classical Linear Regression Model Multicollinearity - Nature, detection, consequences and remedy, Specification Bias, Heteroscedasticity- Consequences, detection and remedy; Generalized Least square and weighted least square estimation; Autocorrelation: Detection, Consequences and remedy</p>	CO2,CO3
	<p>UNIT V: Dummy Variable Models Estimation; testing the structural stability of regression models; Interaction effects; Seasonal analysis; Piecewise Linear regression</p>	CO2,CO3
Pedagogy	Classroom Teaching includes techniques presentation, peer/group work, lecture, problem solving, and group discussion.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Books: 1. D. N. Gujarati, D. C. Porter, S. Gunasekar (2017); Basic Econometrics, Mcgraw; 5th edition.</p> <p>Reference Books: 1. Statistics for Business and Economics - Anderson, Sweeney John E. Freund (1992); Mathematical Statistics, Prentice Hall. 2. Johnstone, J. (1994); Econometrics Methods, 3rd Edition, McGraw Hill, New York. 3. Koutsoyiannis, A. The Theory of Econometrics, 2nd Edition, ESLB. 4. Greene, W.H. (2000); Econometric Analysis, 4th edition, Prantice Hall. 6. J. M. Wooldridge (2019); Introductory</p>	

		<p>Econometrics: A Modern Approach, Cengage Learning; 7 editions.</p> <ul style="list-style-type: none"> • Jay L. Devore (2010); Probability and Statistics for Engineers, Cengage Learning. • Jeffrey Wooldridge (2019). Introductory Econometrics: A Modern Approach. South-Western College Publishing; 7th edition (4 January 2019)
--	--	--

Facilitating the Achievement of Course Outcomes (COs)

Sl. No	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	To Exhibit a sound understanding of mathematical techniques applicable in Financial and economic perspective	Lecture, role play and discussion through Case-lets and Cases	Small group exercises, case analysis	2
CO 2	To Apply the relevant mathematical tools and techniques for analyzing economics and financial problems.	Classroom discussion and group activity based on the areas to solve issues.	Case analysis and Presentation	2, 3
CO 3	To Analyze economic and financial problems in mathematical form.	Lecture, Case analysis	Case analysis and situational games	3,4
CO 4	Evaluate the outcome of various economic and financial decisions empirically.	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Design mathematical model for interpreting economic and financial issues	Case studies and	Project Presentation	4 &5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Correlation level 1, 2 and 3 as defined below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"–" – No correlation

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks**

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course	SUMMER INTERNSHIP AND COMMUNITY ENGAGEMENT	
Type of Course	Project / Internship	
Code	BSCESI	
Credit	2	
Semester	V	
Sessions	30 Hours (L-0,T-0,P-30)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To provide practical exposure to students to the banking and financial service sector. • To sensitize students about practical problems to find solutions. • To equip students with the ability to critically examine practical issues and gain experience to deal with • To develop skill and idea for developing leadership skill and adopt organizational culture 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand and experience real market problems (CO 1) • Analyze the data and find solutions (CO 2) • Apply the concepts for policy evaluation and take financial decision. (CO 3) • Evaluate organizational culture and work in a team (CO 4) • Create and developing report for policy recommendation (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>Students will do summer project and engage in community development activities in the socio-economic sector. The students need to appear for a final presentation and viva voce. Student will be considered as an intern and complete the project under a designated company guide. However, the faculty internship coordinator will allocate a faculty guide in consultation to the head of the department. The student will be in regular touch with the faculty guide and inform about the progress. An interim presentation about the progress will be conducted by the department where the student has to present his progress. At the end of the project the student has to submit a summer project report as per the prescribed format along with a certificate of completion duly signed by the company guide (summer project guide).</p>	<p>CO1 CO2 CO3 CO4 CO5</p>
Pedagogy	Field Live project	

Evaluation	Continuous Evaluation Report (60 Marks); Presentation/Viva voce (40 Marks).
Suggested Readings:	Reference Books: As suggested by the company guide and faculty guide.

Facilitating the Achievement of Course Outcomes (COs)

Sl.No.	CO	Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand and experience real market problems	Field Project	Report, Viva voce and Presentation	2
CO 2	Analyze the data and find solutions	Field Project	Report, Viva voce and Presentation	2, 3
CO 3	Apply the Concepts for policy evaluation and take financial decision.	Field Project	Report, Viva voce and Presentation	3,4
CO 4	Evaluate organizational culture and work in a team	Field Project	Report, Viva voce and Presentation	3, 4
CO 5	Create and developing report for policy recommendation	Field Project	Report, Viva voce and Presentation	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation (10)	Field Project (30)
Remember		
Understand	5	
Apply	5	10
Analyze		10
Evaluate		5
Create		5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

SEMESTER VI

Course	INDIAN ECONOMY-II	
Course Type	Disciplinary Major (Core)	
Code	BSCE13	
Credit	4 (3-T, 1-L)	
Semester	V	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> ● To orient students about the Indian economy ● To develop skills to understand Indian economic issues and challenges ● To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the problems and prospects of Indian economy (CO 1) ● Apply skills to analyze economic policies for effective decision making (CO 2) ● Analyze economic issues for strategic decision (CO 3) ● Evaluate and demonstrate Indian economic condition (CO 4) ● Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT I: Agricultural Development in India Indian Agriculture: nature, importance, trends in agricultural production and productivity, factors determining production, land reforms, new agricultural strategies and green revolution, rural credit; Agricultural marketing and warehousing</p>	CO1
	<p>UNIT II: Industrial Development in India Trends in industrial output and productivities; Industrial Policies of 1948, 1956, 1977 and 1991; Industrial Licensing Policies – MRTP Act, FERA and FEMA; Growth and problems of SSIs, Industrial sickness; Industrial finance; Industrial labour</p>	CO1
	<p>UNIT III: Tertiary Sector and HRD Tertiary Sector: growth and contribution of service sector to GDP of India, share of services in employment; Human development – concept, evolution, measurement; HRD: indication, importance,</p>	CO2

	education in India, Indian educational policy; Health and Nutrition.	
	<p>UNIT IV: External Sector</p> <p>Foreign Trade: role, composition and direction of India's foreign trade, trends of export and import in India, export promotion versus import substitution; Balance of Payments of India; India's Trade Policies; Foreign Capital – FDI, Aid and MNCs.</p>	CO2,CO3
	<p>UNIT V: Indian Economy and Environment</p> <p>Environmental policies in India: the Environmental Protection Rules 1986, the National Forest Policy 1988, National Environment Policy 2006, Impact of climate change in India, Global response on climate change</p>	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 1. S. K. Misra and V. K. Puri (2020): <i>Indian Economy — Its Development Experience</i>, Himalaya Publishing House, Mumbai <p>Reference Books:</p> <ol style="list-style-type: none"> 2. U. Kapila (2010): <i>Indian economy since Independence</i>. Academic Foundation, NewDelhi 3. S. Chakraborty (1998): <i>Development Planning: The Indian Experience</i>. ClarendonPress. 4. R. Dutt and K. P. M, Sundharam (Latest Year): <i>Indian Economy</i>, S. Chand &Company Ltd., New Delhi. 5. A. Panagariya (2008): <i>India: the Emerging Giant</i>, Oxford University Press, New York 6. S. Acharya and R. Mohan (Eds.) (2010): <i>India's Economy: Performance andChallenges</i>, Oxford University Press, New Delhi. 7. I. J. Ahluwalia and I. M. D. Little (Eds.) (1998): <i>India's Economic Reforms andDevelopment: Essays for Manmohan Singh</i>, Oxford University Press, New Delhi. 	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the problems and prospects of Indian economy	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate Indian economic condition	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creatin

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PS O3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/ GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course	INTERNATIONAL ECONOMICS-II	
Course Type	Disciplinary Major (Core)	
Code	BSCE14	
Credit	4 (3-T, 1-L)	
Semester	VI	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To orient student's concepts in international economics. • To develop skills to understand global economic issues • To include ability to critically analyze market strategies for effective decision making and policy recommendation 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic concepts of international economics (CO 1) • Apply skills to analyze economic concepts for effective decision making (CO 2) • Analyze economic issues for strategic decision (CO 3) • Evaluate and demonstrate international economics conditions (CO 4) • Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT I. Unilateral and Non-Cooperative Trade Policies Revisiting protectionist trade policies in competitive framework; Strategic trade policies; Trade and industrial policy under information externality</p>	CO1
	<p>UNIT II: Political Economy of Trade Policy Lobbying and endogenously determined trade policies: The different approaches; level and mode of protection under political-support function approach; lobbying and contribution approaches; cross-country evidences Lobbying or rent-seeking activities under trade protection and welfare implications: Monopoly-seeking lobby; rent-seeking under import quota; rent seeking versus tariff-seeking</p>	CO1
	<p>UNIT III: Reciprocated and Coordinated Trade Policies Vinerian theory: trade creation and trade diversion effects of Free Trade Agreements; delegations of trade policy setting in Customs Union; coalition games and</p>	CO2

	equilibrium structure of trade blocs; Evolution of European Union as a case study;	
	UNIT IV: Geopolitics and Contemporary Regionalism Contemporary Regionalism and the East Asian experience; regional versus global free trade (Spaghetti bowl effect; political economy approach towards resolutions of conflict)	CO2,CO3
	UNIT V: Product Standards, Regulations and Trade Labour standards, child labour and trade sanctions; Technical barriers to trade and quality regulations; TRIPS, innovation and parallel imports; Environmental standards and trade; evidences on migration of dirty industries.	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	Text books: <ol style="list-style-type: none"> 1. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 13th edition, 2024 Reference Books: <ol style="list-style-type: none"> 3. Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012. 4. Bo Sodersten and Geoffrey Reed, International Economics, McMillan Press Ltd, 2011. 	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic concepts of international economics	Lecture and discussion Through small cases	Active learning and application with the help of small group exercises, quiz	2

CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate international economics conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO1	PSO2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc. (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5

Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course	PUBLIC FINANCE AND POLICY	
Course Type	Disciplinary Major (Core)	
Code	BSCE15	
Credit	4 (3-T, 1-L)	
Semester	I	
Sessions	60 Hours (L-45+T-15)	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the basic principles of public economics concepts. • To develop skills to understand economic issues • To inculcate ability to critically analyze market strategies for effective decision making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic public economic concepts (CO 1) • Apply skills to analyze economic concepts for effective decision making (CO 2) • Analyze economic issues for strategic decision (CO 3) • Evaluate and demonstrate public economic conditions (CO 4) • Create analytical presentation on economic issues (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>UNIT I: Introduction to public finance Public Finance: meaning and scope, distinction between public and private finance; public good verses private good; Principle of maximum social advantage; Market failure and role of government;</p>	CO1
	<p>UNIT II: Public Expenditure Meaning, classification, principles, cannons and effects, causes of growth of public expenditure, Wagner’s law of increasing state activities, Peacock-Wiseman hypotheses</p>	CO1
	<p>UNIT III: Public Revenue Sources of Public Revenue; Taxation - meaning, cannons and classification of taxes, impact and incidence of taxes, division of tax burden, the benefit and ability to pay approaches, taxable capacity, effects of taxation, characteristics of a good tax system, major</p>	CO2

	trends in tax revenue of central and state governments in India	
	UNIT IV: Public Budget Public Budget: kinds of budget, economic and functional classification of the budget; Balanced and unbalanced budget; Balanced budget multiplier; Budget as an instrument of economic policy.	CO2,CO3
	UNIT V: Public Debt Sources, effects, debt burden – Classical, Ricardian and other views, shifting - intergenerational equity, methods of debt redemption, debt management, and tax versus debt. Fiscal Federalism, Ecological Fiscal Transfer, Role of Government-Fiscal Stimulus packages during pandemic and its impact on government finance,	CO4,CO5
Pedagogy	Lecture, Live project, Role play, Simulation, Presentation, peer/group work, Group Discussion, Case Study Analysis, Guest talk and interaction, Workshop etc.	
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	Text books: 1. R. A. Musgrave and P. B. Musgrave (2019): <i>Public Finance in Theory and Practices</i> McGraw Hill Reference Books: 2. J. Hindriks and G. Myles (2006): <i>Intermediate Public Economics</i> , MIT Press. 3. B. P. Herber (1975): <i>Modern Public Finance</i> . 4. B. Mishra (1978): <i>Public Finance</i> , Macmillan India limited.	

Facilitating the Achievement of Course Outcomes (COs)

	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand the basic public economic concepts	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
CO 2	Apply skills to analyze economic concepts for effective decision making	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	2, 3
CO 3	Analyze economic issues for strategic decision	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3,4
CO 4	Evaluate and demonstrate public economic conditions	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Create analytical presentation on economic issues	Lecture, discussion, case studies, presentation	Assignment and activity	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation (5)	Writing Assignments (10)	Lab (20)	Attendance & Class Participation (5)
Remember				
Understand			5	
Apply	5	5	5	
Analyze		5	5	
Evaluate			5	
Create				

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	15
Apply	20
Analyze	15
Evaluate	10
Create	

SEMESTER – VII
MAJOR- ELECTIVES

Course Name	AGRICULTURAL ECONOMICS	
Type of Course	Major-Elective	
Course Code	BSCE16	
Course Credit	4 (3-L, 1-T)	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> ● To provide a strong knowledge base regarding economic analysis of agricultural sector. ● To understand the about contribution and importance of agriculture for economic development. ● To strengthen the knowledge on different aspects of Indian agriculture like agricultural marketing and prices, institutional mechanism for agricultural development, problems and prospects in the international market. 	
Course Outcome(CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic framework economic analysis of agricultural sector (CO1) ● Apply statistical tools & techniques for agriculture economics for the development (CO2) ● Analyze Indian agriculture like agricultural marketing and prices policies (CO3) ● Evaluate problems and prospects in agricultural marketing (CO4) ● Develop institutional mechanism for agricultural development (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Agriculture, Economic Development And Production Nature and scope of agricultural economics; Role of agriculture in economic development; Interdependence between agriculture and industry; Approaches of Schultz, Mellor and Boserup Agricultural production — Resource use and efficiency; Cost and supply curves; Size of farm and productivity debate; Supply response in agriculture.</p>	CO1

	<p>MODULE II: Ricultural Marketing And Prices Agricultural markets and marketing efficiency — Marketing functions and costs; Market efficiency; Market structure and imperfections; Marketed and marketable Surplus; policy with respect to agricultural marketing; Regulated markets; Contract farming. Objectives of agricultural price policy — Instruments and evaluation; Terms of trade between agricultural and non- agricultural prices; Risk and uncertainty in agriculture; Agricultural insurance scheme-National Agricultural Insurance Scheme and Weather Based Crop Insurance schemes.</p>	CO2
	<p>MODULE III: Institutional Aspect And Investment In Agriculture Land tenures and farming systems — Peasant, capitalist, collective and state farming; Tenancy and crop sharing — Forms, incidence and effects; Land reform measures and performance; Women and land reforms. Sustainable agriculture and indigenous practice. Role of Public investment and capital formation in Indian agriculture; Public and private investment complementarily debate in Indian agriculture.</p>	CO3
	<p>MODULE IV: Agriculture Growth In India And External Sector Recent trends in agricultural growth and productivity in India; Regional disparities in Indian agriculture, cropping pattern shifts; pricing of inputs and role of subsidies; Bio- technological practices and growth potential.</p>	CO4
	<p>MODULE V: International Trade In Agricultural Commodities International trade in agricultural commodities; Nature and features of agri-business; Role of MNCs; Globalization of Indian economy and problems and prospects of Indian agriculture; Impact of World Trade Organization on Indian agriculture.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	

Suggested Reading	<p>Text Book</p> <ol style="list-style-type: none"> 1. Barkley, Andrew and Paul W. Barkley (2020) Principles of Agricultural Economics 3rd Edition, 2. Lekhi, R.K. and Singh, J (latest edition), Agricultural Economics: An Indian Perspective, Kalyani <p>Reference Books</p> <ol style="list-style-type: none"> 1. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi. 2. Drummond, H. E and Goodwin, J W (2004), Agricultural Economics, Pearson Delhi 3. Soni, R.N (latest edition), Leading Issues in Agricultural Economics, Vishal Publishing
--------------------------	---

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term Projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc. (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Mark

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	ENVIORNMENTAL ECONOMICS	
Type of Course	Major-Elective	
Course Code	BSCE17	
Course Credit	4 (3-L, 1-T)	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> • To develop a strong knowledge base regarding economic implication in the context of environment. • To discuss about inter relationship between economy and environment., • To understand the concept of sustainable development, economic valuation of environment and economic analysis of environmental pollution 	
Course Outcome(CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic framework economic analysis of environment (CO1) • Apply statistical tools & techniques for environmental economics for the development (CO2) • A n a l y z e environmental policies and its implication (CO3) 	
	<ul style="list-style-type: none"> • Evaluate problems and prospects in environmental issues (CO4) • Develop institutional mechanism for environmental resilience technology (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Economy And Environment The historical development of environmental economics–Early economic paradigms and the Environment, Post war economics and the rise of environmentalism, Interaction between Ecological and Economic Systems; Environment-Development-Poverty Nexus, Institutional economics Paradigm, The market model of environmental values. The difference between environmental economics, resource economics and ecological economics.</p>	CO1
	<p>MODULE II: Environment And Sustainable Development The concept of sustainable development, Measuring of sustainable development, Strong Sustainability vs weak-sustainability. sustainable macroeconomics accounting of national income and wealth, Green accounting; The environment Kuznets curve, theory of Krutilla- Fisher Equation for preservation or development; Environmental cost-benefit Analysis for sustainable development, Rationale of discounting future in the context of sustainability; Endogenous growth theory and sustainable development; Technological change and environment.</p>	CO2

	<p>MODULE III: Environmental Valuation. Meaning of environmental valuation, the uses of economic value, costs, benefits, willingness to pay and willingness to accept, Total economic value, Option value, Existence value, Empirical measures of option and existence value, Total economic value and decision making. Revealed preference versus stated preference, hedonic price approach, Household production function, Travel cost approach, Defensive and Contingent valuation method.</p>	CO3
	<p>MODULE IV: Approaches To Valuation Methodologies Theory of optimal use of renewable and non-renewable resources. Limits to growth theory. Economics of climate change – The Stern Review, The Economics of Biodiversity – The Dasgupta Review</p>	CO4
	<p>MODULE V: The Economics Of Pollution The optimal level of pollution, Pollution as externality, alternative definitions of pollution, The market achievement and optimal pollution, Property rights and market bargain theorems, Coase theorem. The optimal pigovian tax, Pollution charges and abatement costs, Pollution reduction subsidies, Marketable pollution permits, The theory of marketable permits, The advantages of marketable permits, Types of permit system, Permit trading in practice. Informal regulations.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings	<p>Text Book</p> <ol style="list-style-type: none"> 1. Bhattacharya. N(2002), Environmental Economics: An Indian Perspective (E), Oxford University Press, New Delhi,2011 2. Kolstad, C.D. (2012) Environmental Economics, Oxford University Press, New Delhi <p>Reference Books</p> <ol style="list-style-type: none"> 3. Singh K and Shishodia A. Environmental Economics: Theory and Application, Sage Publication, New Delhi, 2007-2012 4. Tietenberg, T. And Lynne L (2019) Environmental Economics Policy, Pearson. 	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2

2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc.(10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	GENDER ECONOMICS	
Type of Course	Major-Elective	
Course Code	BSCE18	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> To develop an analytical approach in the minds of the students in the context of gender economics. To applies different economic approach to analyze cost gender economics sustainability 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> Understand the basic framework economic analysis of gender (CO1) Apply statistical tools & techniques for gender economics for the development (CO2) Analyze gender economic policies and its implication (CO3) Evaluate problems and prospects in renewable and non-renewable energy issues (CO4) Develop institutional mechanism for sustainable gender economic policy (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction to Gender Economics Introduction to Gender Economics: Exploitation vs. oppression – Issue of private property – Access and control over economic resources, Gender and Microeconomics: Gender Bias in the Theories of Value and Distribution – issues and alternative theories of rationality, consumption, production and exchange – Gender critic of rational choice, externalities, social welfare function and welfare economics – Human capital and discrimination theories.</p>	CO1
	<p>MODULE II: Women And Development Engendering developmental theories – Gender Development Index and Gender Empowerment Measures – Visibility of women and biases inherent in data system – Limitation of National Income Statistics - Mainstreaming gender into development policies – Gender planning techniques - Gender sensitive governance - Paradigm shifts from women’s well- being to women’s empowerment - Democratic decentralization (panchayats) and women’s empowerment in India.</p>	CO2
	<p>MODULE III: Women And Work Valuation of women’s work - Factors affecting female entry in labour market - Supply and demand for female</p>	CO3

	labour - Wage differentials in female activities - Determinants of wage differentials - Impact of technology on women's work participation. Demography and Female Population: Women and their access to nutrition - Health, education, and social and community resources.	
	MODULE IV: Factors Affecting Decision Making By Women Property rights, access to and control over economic resources and assets - Power of decision making at household, class, community level - Economic status of women and its effect on work-participation rate, income level, health, and education in developing countries and India - Female contribution to national income.	CO4
	MODULE V: Social Security Of Women: Concepts and scope of livelihood, livelihood framework Entitlements - ensuring economic independence and risk coverage - Access to credit and insurance markets - Labour market biases and gender discrimination - Affirmative action for women and improvement in their economic and social status.	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	Reading List <ol style="list-style-type: none"> 1. Government of India: Towards Equality □ Report of the Committee on the Status of Women in India, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi. 1. ILO: Women's Participation in the Economic Activity of Asian Countries. 2. Kabeer, N. and R. Subrahmanyam (Ed.): Institutions, Relations and Outcomes: A Framework and Case Studies for Gender-aware Planning. 3. Kalpagam, U.: Labour and Gender: Survival in Urban India. 4. Krishnaraj, M., R.M. Sudarshan and A. Shariff: Gender, Population and Development. 5. Papola, T.S. and A.N. Sharma (Eds.): Gender and Employment in India 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks**

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	URBAN ECONOMICS	
Type of Course	Major-Elective	
Course Code	BSCE19	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> • To develop an analytical approach in the minds of the students in the context of energy resources. • To applies different economic approach to analyze cost and benefit aspects to different types of natural resources like mineral, forest, water and livelihood and natural resource management. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic framework urban economic analysis (CO1) • Apply statistical tools & techniques for urban economics for the development (CO2) • A n a l y z e urban policies and its implication (CO3) • Evaluate problems and prospects in urban economic issues (CO4) • Develop institutional mechanism for urban economics policy (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Nature And Scope Nature and scope of urban Economics, structure and growth of Urban economy, urban Public Services; Growth of Urban Economy</p>	CO1
	<p>MODULE II: Theory Of Urban Economics Urban Growth; Central Place Theory and its application to the study of Urban Growth-the Urban economic base and urban growth; the communication theory of Urban growth; City size and urban growth; urban spatial structure; Concentric Zone Hypothesis-The Radial Sector theory. The Multiple Nuclei Hypothesis</p>	CO2
	<p>MODULE III: Urban Issues Urban Housing, Labour Market and Poverty; Housing market Imperfection-trends in slum Housing-tearing down the slums. Urban Labour Market: Determination of Labour incomes-wagedifferentials-the culture of urban poverty –Measures of Urban poverty-The nature of urban poverty-The causes of</p>	CO3

	urban poverty; Public Policies for reducing urban poverty-macro Economic policies income-Maintenance Policies-negative income taxes	
	MODULE IV: Urban Development Problems Urban Development Problems in India, Land Prices and land Speculation-Urban Land celling; Congestion and Urban transport pricing Policy; Cost and supply of alternative urban transport system	CO4
	MODULE V: Urban Growth Strategies Urban Growth Strategies-An approach to Metropolitan Planning in Developing Countries; national urbanization policy with reference of India	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	Text Book 1. Hartwick,J.M. (2015). Urban Economics. Routledge Reference Books 1. Kourtit,K.(2020). The New Urban World: Economic-Geographical Studies on the Performance of Urban Systems, Shaker Publishing B.V. 2. Mohanty, P.K (2018). Planning and Economics of Cities: Shaping India's Form and Future. SAGE Publications India Pvt Ltd 3. Sullivan, A,O (2012). Urban Economics (Intl. Ed.) Paperback , McGraw-Hill Education / Asia	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2

2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5

Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	LAW AND ECONOMICS	
Type of Course	Major-Elective	
Course Code	BSCE20	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<ul style="list-style-type: none"> • To introduce the students various concepts of law and economics. • To sensitize students about different laws and its application for economic benefit. • To equip students with the ability to critically evaluate development policy interventions and implications for economic stability To develop skill and idea for modeling suitable policy. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ol style="list-style-type: none"> 1. Understand and interpret different concepts of concepts of law and economics (CO1) 2. Apply the concepts for growth models and its application (CO2) 3. Analyze the linkages development policy interventions and outcome (CO3) 4. Evaluate casual linkages in short run and long run impact of law on economic growth (CO4) 5. Developing skills for fact analysis and providing policy recommendation (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Law Relating To Consumer Activities Bargaining Theory; Economic Theory of contract, Remedies as incentives, Duress; Tort Law, Tort Liability and economic models; economics of accidents; fault, victim and strict liability; consumer protection and consumer Courts.</p>	CO1
	<p>MODULE II: Law Of Business Organizations Structure of firm-Kinds, Corporation, Corporate vest, Capital, shares, debentures, insiders' trading; Anti-Trust; RBI, IRDA, MRTP, SEBI, Economics of mergers, Amalgamations and takeovers</p>	CO2

	<p>MODULE III: Economic Theory Of Crime And Punishment The traditional theory of Criminal law: Economic Theory of Crime and punishment; Reforms of Criminal Procedure and Futility Theses; Law relating to economic offences- Corruption and Human rights.</p>	CO3
	<p>MODULE IV: Macro Economics, International Aspects And Law Property rights, Distribution of income and Law; Economic and Social costs of poverty: Economics of Social Sector; Wealth Distribution by liability Rules, Progressive Taxation and Efficiency;</p>	CO4
	<p>MODULE V: International law and Economic Intervention National and Global Environmental problems. W.T.O- TRIPS and TRIMS, export-import Policy, MNCS and Foreign Direct investment; FEMA.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks</p>	
Suggested Readings :	<p>Text books:</p> <ol style="list-style-type: none"> 1. Bouckaert, B and G.DeGeest (Ed). (1999) Encyclopaedia of Law and Economics (Volume I to V) Edward Elagr Publishing Ltd., UK. 2. Cooter, R.D. and T.S. Ulen (Ed) (2000). Law and Economics (3rd Edition), Addisiion Wesley, New York. 3. Dan Schmidt, K.G. And T.S. Ulen (2000), Law and Economics, (3rd Edition) AddisioWesley, New York. 4. Newman, P. (Ed) (1998), The New palgrave dictionary of Economic and Law, Stockton PreYork. 5. Oliver J.M. (1979), Law and Economics, George Allen and Unwin, London. <p>Reports:</p> <ol style="list-style-type: none"> 1. Economic Survey Published by Ministry of Finance, Govt. of India 2. Annual Budget published by Ministry of Finance, Govt. of India <p>Other Materials: Case studies and published articles will be shared in the class from time to time</p>	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	BEHAVIOURAL ECONOMICS	
Type of Course	Major-Elective	
Course Code	BSCE21	
Course Credit	4 (3-L, 1-T)	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> • To develop students’; understand the alternative conceptions of development of behavioural economics. • To improve the better understanding of human psychology and economics. • To strengthen the idea of different approach for human welfare through behavioral economics lens. 	
Course Outcome(CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Apply the skills of measurement of behavioural economic theory with purpose to be able to analyze human behaviour (CO 1) • Apply the principles of economic development to understand human psychology (CO 2) • Determine the factors of lower economic growth and development in underdeveloped economies (CO 3) • Demonstrate the principles of human development for the well-being of citizens (CO 4) • Apply behavioural growth models to solve current economic problems (CO 5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction To Behavioural Economics The Historical Context of Behavioural Economics, The Methods of Behavioural Economics, Basic Concepts- Intertemporal Choice, Time Discounting, Preference over Risky and Uncertain Outcomes, Fairness and Social Preferences. , Endowment Effect, Bilateral Bargaining and Coase Theorem, Choices between Goods, Mental Accounting- Mental Accounting Decision Making , The Framing of Gains and Losses- The Value Function, Hedonic Framing, Transaction Utility, Payment Decoupling, Self-Control and Gift Giving, The Diversification Heuristic , Developments in Nonexpected-Utility Theory: Choice Under Risk, Expected Utility Theory, The —Fanning-Outll Hypothesis, Non- Conventional Theories: The Procedural Approach And Reference Dependence, No</p>	CO1

	transitive Preference Theory.	
	<p>Module II: Theories In Behavioral Economics Prospect Theory, The Equity Premium, The Disposition Effect, Asymmetric Price Elasticities Of Consumer Goods, Savings And Consumption: Insensitivity to Bad Income News, Racetrack Betting: The Favorite-Longshot Bias , Time Discounting And Time Preference: Discounted-Utility Model, Utility Independence, Consumption Independence, Stationary Instantaneous Utility, Discounted Utility Anomalies-Hyperbolic Discounting, The —Sign Effectl, The —Magnitude Effectl, The —Delay-Speedupl Asymmetry, Preference For Improving Sequences, Models Of Hyperbolic Discounting, Self-Awareness, Explaining Bargaining Impasse, Psychological Research On The Self Serving Bias, Theory And Experiment In The Analysis Of Strategic interaction.</p>	CO2
	<p>Module III: Behavioral Game Fairness as a Constraint on Profit Seeking: Reference Transactions, The Coding of Outcomes, Occasions for Pricing Decisions, Enforcement, Economic Consequences, Inequity-Aversion, Fairness, Retaliation, and Competition, Market Game with Responder Competition, Cooperation and Retaliation—Cooperation Games, Dictator and Gift Exchange Games, Incorporating Fairness into Game Theory and Economics, Behavioral Game Theory: Predicting Human Behavior in Strategic Situations, Social Utility, Iterated Reasoning in First- Period Play and One-Shot Games, Judgment and Choice in Games, Framing, Coordination, and Representation Cooperative Game Theory, Evolutionary Game Theory, Signaling Games, Coordination Games, Unstructured Bargaining.</p>	CO3
	<p>MODULE IV: Fairness And Retaliation In Economic Behavior The Economics of Reciprocity, Positive and Negative Reciprocity, Public Goods to Social Norms, Reciprocity as a Contract Enforcement Device, Work Motivation and Performance Incentives, Wage Rigidity, Rent-Sharing, and Competition, Foundations of Incomplete Contracts, The Effect of Incentives and Punishments, Decision Theory.</p>	CO4

		Module V: Application Of Behavioural Economics Applications in Macroeconomics: Mental Accounting, Saving, and Self-Control, Self-Control and Temptation, The Differential Marginal Propensity to Consume (MPC) Hypothesis, Pensions and Saving, Individual Retirement Accounts, Housing Wealth, Saving Adequacy, Non proportionality, Policy Implications, Golden Eggs and Hyperbolic Discounting, The Consumption Decision, Equilibrium Strategies Applications in Labor Economics: The Fair Wage-Effort Hypothesis and Unemployment, Equity	CO5
		Theory, Relative Deprivation Theory, Social Exchange Theory, Wage-Salary Secrecy, Wage Patterns, Patterns of Unemployment Applications in Finance: Money Illusion, Earnings, Transactions, Contracts, Money Illusion in Solow's Model of Efficiency wages.	
Pedagogy		Presentation, class participation, peer/group work, case study	
Evaluation		Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings		Text books: <ol style="list-style-type: none"> Bernheim, B.D., DellaVigna, S., Laibson, D.: Handbook of Behavioral Economics, Vol. 2, North-Holland (2019) Camerer, C., Loewenstein, G., Rabin, M.: Advances in Behavioral Economics, Princeton University Press (2004). Reference Books: <ol style="list-style-type: none"> Dhami, S.: The Foundations of Behavioural Economic Analysis, Oxford University Press (2016). Camerer, C.: Behavioral Game Theory: Experiments in Strategic Interaction, Princeton University Press (2003) 	

Facilitating the achievement of Course Outcomes

Module No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3

4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20

Analyze	15
Evaluate	15
Create	

Course Name	APPLIED ECONOMETRICS	
Type of Course	Core Compulsory	
Course Code	BSCE22	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> • To comprehend some of the advanced econometric concepts and techniques. • To apply advanced econometric techniques in the investigation of complex economic relationships using time series and panel data. • To acquaint the skills to make economic forecasting 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the advance concept of econometrics (CO1) • Apply econometrics tools & techniques for economics problem (CO2) • Analyze the implication of advance econometrics tools in economics (CO3) • Evaluate the various econometrics models (CO4) • Develop the time series analysis framework for forecasting (CO5) 	
Pre-Requisite	Basic understanding of Econometrics and statistics	
Course Outline	Description	CO Mapping
	<p>MODULE I: Simultaneous-Equation Models Nature of simultaneous equations models; Simultaneous equation bias; Structural models; Reduced form models; Identification problem; Rules of identification; Tests for simultaneity and exogeneity; Method of indirect least squares (ILS); Method of two-stage least squares.</p>	CO1
	<p>MODULE II: Dynamic Econometric Models Lags in econometric models; Distributed lag model; Autoregressive lag model; Reasons for lags; Estimation of distributed-lag model, The Koyck Approach to distributed-lag model; Rationalization of koyck model: The adaptive expectations model, partial adjustment model; Estimation of autoregressive models; The method of instrument variable (IV); Causality in economics: The granger causality test.</p>	CO2
	<p>MODULE III: Time Series Econometrics: Basic Concepts Introduction to time series; Stationary and nonstationary time series; Spurious regression; Unit root tests: Dickey fuller and Augmented dickey fuller tests;</p>	CO3

	Transforming nonstationary time series; Cointegration: Testing for cointegration, error correction mechanism	
	MODULE IV: Time Series Econometrics Introduction to Time series, Approaches to economic forecasting; ARIMA models; The Box-Jenkins methodology; Forecasting.	CO4
	MODULE V: Panel Data Regression Model Introduction to panel data; Constant coefficient model; Fixed effect LSDV model; Fixed effect WG model; Random effects model, Properties of estimators.	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings :	<p>Text Book</p> <ol style="list-style-type: none"> Gujarati, D. N., Porter, D.C., &Gunasekar, S. (2017). Basic Econometrics. (5th ed.). New Delhi: McGraw Hill. Studenmund, A. H. (2016). Using Econometrics: A Practical Guide. (7th ed.). New Delhi: Pearson Greene, W. H. (2003). Econometric Analysis (5th ed.). New Delhi: Pearson Education. <p>Reference Books</p> <ol style="list-style-type: none"> Wooldridge, J. M. (2002). Econometric Analysis of Cross Section and Panel Data. Massachusetts: MIT Press. 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4

3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10

Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	DATA ANALYSIS IN ECONOMICS AND BUSINESS RESEARCH	
Type of Course	Core Compulsory	
Course Code	BSCE23	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> • Formulate relevant research questions in economics and business. • Design and implement appropriate data collection strategies. • Perform basic and advanced data analysis using statistical methods. • Utilize software tools (e.g., Python) for processing and interpreting data. • Draw policy or business insights based on empirical evidence. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic concept of data analysis and business research (CO1) • Apply data analysis tools & techniques for economics and business problem (CO2) • Analyze the outcome of data tools (CO3) • Evaluate the various data analysis and business tools (CO4) • Develop the effective data analysis framework (CO5) 	
Pre-Requisite	Basic understanding of Statistics and Research Methodology	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction to Research in Economics and Business Importance and role of research in economic and business contexts, Types of research: exploratory, descriptive, analytical, Steps in conducting research, Principles of ethical research and integrity in data handling</p>	CO1
	<p>MODULE II: Data Sources and Sampling Techniques Classification of data: quantitative and qualitative, Sources: primary data (surveys, interviews), secondary data (government databases, institutional reports), Sampling design: random, stratified, cluster, convenience, Issues in sample design: size, bias, representation</p>	CO2
	<p>MODULE III: Data Handling and Empirical Applications with Python Introduction to data analysis tools in Python, Importing, cleaning, and managing datasets, Applying statistical methods to real economic and business data, Case studies: economic growth trends, consumer preferences, market research</p>	CO3

	<p>MODULE IV: Descriptive Data Analysis with Python</p> <p>Organizing and summarizing datasets, Graphical representations: histograms, pie charts, scatter plots, line graphs, Measures of central tendency and dispersion, Understanding data distribution: skewness and kurtosis</p>	CO4
	<p>MODULE V: Applied Research Lab & Minor Project Work (Practical Focus)</p> <p>Project design: identifying a problem, formulating research questions, and selecting variables, Dataset selection and acquisition, Data cleaning and transformation using Python, Application of techniques: regression, hypothesis testing, trend analysis, Interpretation of results and visualization (charts, dashboards), Writing a short empirical research report</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> McKinney, W. (2022). <i>Python for data analysis: Data wrangling with pandas, NumPy, and Jupyter</i> (3rd ed.). O'Reilly Media. Analysis (5th ed.). New Delhi: Pearson Education. Tiwari, A. (2021). <i>Python programming: A practical approach</i>. New Delhi: BPB Publications. Jaiswal, A. (2021). <i>Foundations of data science using Python</i>. New Delhi: Wiley India. <p>Reference Books</p> <ol style="list-style-type: none"> Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2014). <i>Essentials of Statistics for Business and Economics</i>. Boston: Cengage Learning. 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for	Case analysis, Exercise and Presentation	4

		short term projects to be given.		
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

**SEMESTER VIII
MAJOR- ELECTIVES**

Course Name	HEALTH ECONOMICS	
Course Type	Major Elective	
Course Code	BSCE24	
Course Credit	4 (3-L, 1-T)	
Semester	VIII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> ● To provide a strong knowledge base regarding economic analysis of health sector. ● To understand the about contribution and importance of health sector for economic development. ● To strengthen the knowledge on different aspects of Indian health sector like health care demand, supply, medicine. 	
Course Outcome(CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic framework economic analysis of health sector (CO1) ● Apply statistical tools & techniques for health economics for the development (CO2) ● A n a l y z e Indian health sector like health financing and budgeting policies (CO3) ● Evaluate problems and prospects in health care insurance (CO4) ● Develop institutional mechanism for health care economics and development (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction to Health Economics Definition and scope of economics of health- the concept of health and health care- the role of health in economic development–health as human capital determinants of health-poverty, malnutrition; Economic dimensions of health care- Demand and supply of healthcare.</p>	CO1
	<p>MODULE II: Financing of Health Service Theory and practice – Review of per capita and public expenditure on health services over time and in different parts of the country – An analysis of the sources of public funds for health – The need for a general health insurance, pre-payments scheme, savings-linked insurance system etc. – Financing health services through specific (health cess) and general (direct and indirect taxes) local government revenues – The role of government financing institutions in financing health.</p>	CO2

	<p>MODULE III: Evaluation Of Benefits And Costs Of Health Services Private benefits and private costs of providing health services,</p>	CO3
	<p>The failure of the market to provide essential health services, The provision of health services by the government – The application of benefit cost analysis to public health and family planning projects.</p>	
	<p>MODULE IV: The Role Of Health In Economic Development-Policy Benefits and costs (both private and social) of training professional manpower such as physicians, dentists, pharmacists, and nurses. A review of the Indian National Health Policy and a discussion of other feasible alternatives.</p>	CO4
	<p>MODULE V: Indian Health Sector Issues Growth in expenditure of personal health services – Characteristics of health services – healthcare problems, publics and economists views – Analysis of demand for health services and supply of it– Rising healthcare costs, Factors affecting health – Nutritional status – Changes in morbidity pattern and trends immortality rates – Development policies, health strategy and role of non-health system – Socio-economic determinants of health status – Health foals, strategies and inter-sectoral action, Implementation of inter-sectoral programme for health.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings	<p>Text Book</p> <ol style="list-style-type: none"> 1. Platt, M and Goodman, A. C. (2021) Handbook on Teaching Health Economics: Best Practices, Edward Elgar Publishing Ltd 2. Glied, S (Editor) and Smith, P. C. (2013). The Oxford Handbook of Health Economics, OUP Oxford <p>Reference Books</p> <ol style="list-style-type: none"> 1. Pattnaik,P (2013), Health Economics, Black Prints India Inc 2. Bhattacharya,J (2013),Health Economics, Red Globe Press 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term Projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40

MarksEnd Semester Examination (ESE)- 60

Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	ENERGY ECONOMICS	
Course Type	Major-Elective	
Course Code	BSCE25	
Course Credit	4	
Semester	VIII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> To develop an analytical approach in the minds of the students in the context of energy resources. To applies different economic approach to analyze cost and benefit aspects to different types of natural resources like mineral, forest, water and livelihood and natural resource management. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> Understand the basic framework economic analysis of energy (CO1) Apply statistical tools & techniques for energy economics for the development (CO2) Analyze energy policies and its implication (CO3) Evaluate problems and prospects in renewable and non-renewable energy issues (CO4) Develop institutional mechanism for environmental resilience energy (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Economics Of Renewal And Exhaustible Energy Resources A resource taxonomy, Resource scarcity, Renewable resources, Growth curves, The rate of exploitation, Costs and Revenues, Preservation values, Exhaustible resources, Principles of exhaustible resource use, Optimal resource use.</p>	CO1
	<p>MODULE II: Mineral Resources Importance of minerals in economic development, Assessment of Indian mineral resources, International mineral trade, reserves and resources of world minerals supplies, Hazards due to mining-environmental and health, prevention of hazards due to mining; Structure and Organisation of mineral industry in India, future mineral consumption and Indian economy, Uses and Exploration of Mineral Resources; National Mineral Policy, Mineral taxation</p>	CO2
	<p>MODULE III: Forest Resources Forest Resources-Uses, Forest Type and Management, World Forest Cover, Forest Resources of India, Deforestation, Effect of Deforestation on Tribal People, Forest Degradation in India, Sustainable Forest Management; forestry policy- Joint Forest management.</p>	CO3

	<p>MODULE IV: Water Resources Water resources- Surface Water and Ground Water, Water Resources in India, Methods for managing Water Resources; Environmental Impacts of Large Dams, Problems Associated with Rehabilitation of Displaced People/Tribal due to Major Dams, River Water Disputes, Water Pollution; Policy instruments for controlling water pollution; Watersheds.</p>	CO4
	<p>MODULE V: Livelihoods And Natural Resource Management Concepts and scope of livelihood, livelihood framework analysis, various capitals involved, indigenous communities and traditional livelihoods, forms of natural resources and dependencies of local people. Non-Timber Forest Products (NTFP) as a source of rural livelihood, Natural resource crisis and impacts on the livelihood of people- threats of traditional livelihood from globalization, urbanization, privatization, mining and migration; Mechanism for environment regulation in India; Environmental protection laws and their implementation, Importance of sustainable resource management.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> H. Thomas and Tietenberg, T(2018) Environmental and Natural Resource Economics, Routledge Jonathan M. Harris and Roach, B(2017) Environmental and Natural Resource Economics: A Contemporary Approach, Routledge. 	
	<p>Reference Books</p> <ol style="list-style-type: none"> Kanazawa, M (2021) Natural Resources and the Environment: Economics, Law, Politics, and Institutions, Routledge Kolstad C.D. (1999) Environmental Economics, Oxford University Press, New Delhi. Tietenberg, T. (2019) Environmental Economics Policy and Harper Collins New York 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2

2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/Group etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	POLITICAL ECONOMICS	
Course Type	Major-Elective	
Course Code	BSCE26	
Course Credit	4	
Semester	VIII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> • To develop an analytical approach in the minds of the students in the context of political economics. • To applies different economic approach to analyze cost and benefit aspects to different types of political economics. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic framework economic analysis political economics (CO1) • Apply statistical tools & techniques for political economics for the development (CO2) • A n a l y z e political economics and its implication (CO3) • Evaluate problems and prospects of political economics (CO4) • Develop institutional mechanism for political economics (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction and Historical Overview: Perspective on political economy with a historical overview: capitalist development in the pre-second world war period, the golden age and later</p>	CO1
	<p>MODULE II: The State in Capitalism The state and the economy – contestation and mutual interdependence; the state as an arena of conflict; imperialism – the basic foundations</p>	CO2
	<p>MODULE III: The State in the Era of Globalisation Welfare, Development and Autonomy Globalisation and the limits of the welfare state, development and state autonomy</p>	CO3
	<p>MODULE IV: The Changing Role of Finance The changing role of finance in capital accumulation and corporate structure; finance and globalisation - financialisation, financial liberalisation and financial crisis</p>	CO4

	MODULE V: The Social Dimension Globalization and uneven development growth, inequality and exclusion	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	Text Book 1. Michel Beaud, A History of Capitalism, 1500-2000, trans. by Tom Dickman and AnnyLefebvre, New York: Monthly Review Press, 2001. Reference Books 1. Ash Amin (ed.), Post-Fordism: A Reader, Blackwell, 1994. 2. Fran Tonkiss, Contemporary Economic Sociology: Globalisation, Production, Inequality ,Chapter 3. (Fordism and After), Routledge India 2008 reprint, 2006.	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projectsto be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	GAME THEORY AND OPTIMIZATION TECHNIQUE	
Course Type	Major-Elective	
Course Code	BSCE27	
Course Credit	4	
Semester	VIII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> To develop an analytical approach in the minds of the students in the context of strategic economics. To applies different economic approach to analyze cost and benefit aspects to strategic economics. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> Understand the basic framework economic analysis of strategic economics (CO1) Apply statistical tools & techniques for strategic economics for the development (CO2) Analyze strategic economics and its implication (CO3) Evaluate problems and prospects in strategic economics issues (CO4) Develop institutional mechanism for strategic economics (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction And Review Introduction: concept and definition of game theory, Theory of rational choice, interacting decision makers</p>	CO1
	<p>MODULE II: Strategic Games And Nash Equilibrium Strategic games: examples Nash equilibrium: concept and examples, Best response functions, Dominated Actions, Symmetric games and symmetric equilibrium</p>	CO2
	<p>MODULE III: Applications Of Nash Equilibrium Cournot_s model of duopoly market, Bertrand_s model of duopoly market, Electoral Competition; War of Attrition, Auctions, Accident Laws, Strategic games with randomization</p>	CO3
	<p>MODULE IV: Mixed Strategy Nash Equilibrium Mixed strategy Nash equilibrium: concept and examples, Dominated Actions, Formation of Players_ beliefs, Economic Applications</p>	CO4

	<p>MODULE V: Extensive Games And Nash Equilibrium Introduction to extensive games, Strategies and outcomes, Nash equilibrium, Subgame perfect Nash equilibrium, backward induction, Stackelberg model of duopoly markets Ultimatum game</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> Osborne, M.J. An Introduction to Game Theory, Oxford University Press, (2004). Bierman and Fernandez, Game Theory with Economic Applications, Second Edition, Addison Wesley (1998). <p>Reference Books</p> <ol style="list-style-type: none"> Binmore, Fun and Games, Heath (1992). Dixit and Nalebuff, Thinking Strategically, W.W. Norton (1991). Fudenberg and Tirole, Game Theory, MIT Press (1991). Gibbons, Game Theory for Applied Economists, Princeton University Press (1992). Gibbons, R. A Primer in Game Theory, Pearson Education, (1992). Krishna, Auction Theory, Academic Press (2002). auction theory. Mas-Colell, A., M.D. Whinston and J.R. Green Microeconomic Theory, Oxford University Press, (1995). Osborne and Rubinstein, A Course in Game Theory, MIT Press (1994). 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4

3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	INDUSTRIAL ECONOMICS	
Course Type	Major-Elective	
Course Code	BSCE28	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>The course will enable the students.</p> <ul style="list-style-type: none"> ● To develop an analytical approach in the minds of the students in the context of behavioral economics. ● To applies different economic approach to analyze cost and benefit aspects to behavioral economics. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic framework economic analysis of behavioral economics. (CO1) ● Apply statistical tools & techniques for behavioral economics for the development (CO2) ● A n a l y z e behavioral economics policies and its implication (CO3) ● Evaluate problems and prospects in behavioral economics. (CO4) ● Develop institutional mechanism for behavioral economics.(CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction –Nature and Scope Definition of Industrial Economics, The Structure, Conduct, Performance model/framework with and without feedbacks and its critique, Schools of thought: The Harvard, Chicago and Austrian Schools - The Firm: Principal-Agent problem, Hold Up Problem, Tapered Integration, Franchising, Sustainable Competitive Advantage, Casual Ambiguity</p>	CO1
	<p>MODULE II: Market Structure, Power and concentration Theories of Measurement of Concentration: deterministic and Stochastic Approach - Lerner and Herfindahl Index, Concentration and Market Power: Theory and Empirical Estimation, Conduct and Market Power: Empirical Estimation, Collusion and Efficiency Hypothesis</p>	CO2

	<p>MODLE III: Barriers to Entry Entry Cost and Market Structure, Endogenous versus Exogenous Entry Cost, Free Entry and Social Welfare - Strategic Behavior, Entry and Exit: Entry deterrence, Predation, Mergers and Acquisitions</p>	CO3
	<p>MODULE IV: Vertical Integreation, Product Differentiation and Advertising Double Marginalization and Two Part Tariffs, Retailers Competition, Investment Externalities, Indirect control, Manufacturer Competition, Vertical Restraints - Horizontal and Vertical Differentiation, Product differentiation and Market power, Product Positioning, Imperfect Information and Switching cost</p>	CO4
	<p>MODULE V: Technical Progress & Performance Market Structure and Incentives for Research and Development, The Dynamics of R&D Competition, Public Policy, Organizational Inertia, Patent and Copyright Protection</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> 1. Stephen Martin, Advanced Industrial Economics, 2019 2. Olmstead, Alan L., and Paul Rhode. 1985. —Rationing Without Government: The West Coast Gas Famine of 1920. American Economic Review, 75: 1044–55. <p>Reference Books</p> <ol style="list-style-type: none"> 1. Roger Clarke, Industrial Economics (Oxford: Basil Blackwell, 1985) 2. Luis M Cabral, Introduction to Industrial Organization, The MIT Press 3. Stephen Martin, Industrial Economics, Blackwell Publishers 4. Fergusen and Fergusen, Industrial Economics.2018 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/ GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	FINANCIAL ECONOMICS	
Course Type	Major-Elective	
Course Code	BSCE29	
Course Credit	4 (3-T, 1-L)	
Semester	I	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> ● To impart the essential aspects of financial asset valuation. ● To introduced the numerical techniques in finance using spreadsheet programmes such as Microsoft Excel. ● To impart skills that will be useful in a variety of business settings ● To enhance the compatibility of students for the job perspective in various institution, including investment banks, asset management companies and in the field of financial and business 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able</p> <ul style="list-style-type: none"> ● Understand Basic financial economics techniques (CO1) ● Apply various basic financial models in economic issue (CO2) ● Analyze simple economic issue with financial investigation (CO3) ● Evaluate the outcome of various economic and financial decision empirically (CO4) ● Develop financial economic model and interpretation (CO5) 	
Pre-Requisite	Basic Knowledge of economics and mathematics.	
Course Outline	Description	CO Mapping
	<p>UNIT I: Introduction to Banking System Financial System Financial Market: Money Market and Capital Market. Role of RBI, Non-Banking financial companies, SEBI</p>	CO1,CO2
	<p>UNIT II: Deterministic cash-flow streams Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunization; the term structure of interest rates; yield curves; spot rates and forward rates.</p>	CO1,CO2
	<p>UNIT III: Single-period random cash flows Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.</p>	CO1,CO2

	<p>UNIT IV: Capital Asset Pricing Model (CAPM) The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula. Arbitrage pricing theory</p> <p>UNIT V: Corporate Finance Patterns of corporate financing: common stock; debt; preferences; convertibles; capital structure and the cost of capital; corporate debt and dividend policy; the Modigliani-Miller Theorem</p>	CO2,CO3
Pedagogy	Classroom Teaching includes techniques presentation, peer/group work, lecture, problem solving, and group discussion.	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation: 60 marks</p>	
Suggested Readings:	<p>Text Books:</p> <ol style="list-style-type: none"> 1. David G. Luenberger, Investment Science, Oxford University Press, USA, 2013 2. Pandey, I.M.(2016), Financial Management, 11th ed. Vikas Publishing House <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Brealey, R., Myers, S., Allen, F., Mohanty, P. (2013). Principles of corporate finance, 10th ed. Tata McGraw-Hill. 2. Simon Benninga, Financial Modeling, MIT Press, USA, 2014. 	

Facilitating the Achievement of Course Outcomes (COs)

Sl. No	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand Basic financial economics techniques	Lecture, role play and discussion through Case- lets and Cases	Small group exercises, case analysis	2
CO 2	Apply various basic financial models in economic issue	Classroom discussion and group activity based on the areas to solve issues.	Case analysis and Presentation	2, 3
CO 3	Analyze simple economic issue with financial investigation	Lecture, Case analysis	Case analysis and situational games	3,4

CO 4	Evaluate the outcome of various economic and financial decision empirically	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Develop financial economic model and interpretation	Case studies	Project Presentation	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO1	PSO2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Correlation level 1, 2 and 3 as defined

- below: "1" – Slight (Low)
- "2" – Moderate (Medium)
- "3" – Substantial (High)
- "-" – No correlation

Bloom's Category	Presentation/Quiz/ GD etc.(10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	



Course Name	RESEARCH AND DISSERTATION	
Course Type	Research	
Course Code	BSCERD	
Course Credit	4 (3-T, 1-L)	
Semester	I	
Sessions	60 Hours (L-45-+T-15)	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> • To enable students to apply economic theory and quantitative techniques to real-world research problems. • To guide students in designing and conducting independent research. • To develop skills in critical thinking, academic writing, and scholarly communication 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able</p> <ul style="list-style-type: none"> • Understand relevant economic problems and formulate appropriate research questions. (CO1) • Apply suitable research methodologies. (CO2) • analyze, and interpret data using appropriate tools and techniques. (CO3) • Evaluate the outcome of various applied research methods (CO4) • Develop a well-structured, coherent dissertation with academic rigor. (CO5) 	
Pre-Requisite	Basic Knowledge of Research methodology	
Course Outline	Description	CO Mapping
	<p>UNIT I: Topic Selection & Proposal Identification of research area, formulation of research questions and objectives, literature review, and proposal presentation.</p>	CO1,CO2

		UNIT II: Research Design & Data Collection Selection of methodology, development of data collection tools, gathering primary/secondary data.	CO1,CO2
		Application of statistical/econometric tools using software (R/SPSS/STATA/Excel), interpretation of results.	CO1,CO2
		UNIT IV: Report Writing Structuring dissertation: introduction, literature review, methodology, analysis, findings, conclusion, references.	CO2,CO3
		UNIT V: Viva-Voce & Final Submission Submission of dissertation and oral defense before an evaluation panel.	CO4,CO5
Pedagogy	Classroom Teaching includes techniques presentation, peer/group work, Lecture, problem solving, and group discussion.		
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation: 60 marks		
Suggested Readings:	Text Books: <ul style="list-style-type: none"> ● Kothari, C. R., & Garg, G. (2019). <i>Research methodology: Methods and techniques</i> (4th ed.). New Age International Publishers. ● Neuman, W. L. (2014). <i>Social research methods: Qualitative and quantitative approaches</i> (7th ed.). Pearson. Reference Books: <ol style="list-style-type: none"> 3. Blumberg, B., Cooper, D. R., & Schindler, P. S. (2014). <i>Business research methods</i> (4th ed.). McGraw-Hill Education. 		

Facilitating the Achievement of Course Outcomes (COs)

Sl. No	CO	Classroom Activities & Techniques	Assessment Method	Bloom's Taxonomy Level
CO1	Understand Basic financial economics techniques	Lecture, role play and discussion through Case- lets and Cases	Small group exercises, case analysis	2

CO 2	Apply various basic financial models in economic issue	Classroom discussion and group activity based on the areas to solve issues.	Case analysis and Presentation	2, 3
CO 3	Analyze simple economic issue with financial investigation	Lecture, Case analysis	Case analysis and situational games	3,4
CO 4	Evaluate the outcome of various economic and financial decision empirically	Lecture, discussion, case studies, presentation	Assignment and activity	3, 4
CO 5	Develop financial economic model and interpretation	Case studies	Project Presentation	4 &5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO 3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Correlation level 1, 2 and 3 as defined

- below: "1" – Slight (Low)
- "2" – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Bloom's Category	Presentation/Quiz/ GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

**INTERDISCIPLINARY MINOR COURSES OFFERED
FROM BIRLA SCHOOL OF ECONOMICS**

Course Name	INTRODUCTION TO STATISTICS	
Course Code	BSCE19	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> ● To acquire basic skills in applied statistics; ● To develop skills in the field of economic analysis and reasoning; ● To develop skills in the analysis and presentation of data. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic framework of statistics (CO1) ● Apply statistical tools & techniques for economics problem (CO2) ● Analyze statistical method and its implication (CO3) ● Evaluate the implication of statistics in economic issues (CO4) ● Develop statistical framework for economics policy (CO5) 	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction and Overview Meaning; Scope of statistics; Importance and limitation of statistics Collection of Data: Planning and organizing a statistical enquiry; Methods of collecting primary data; Sources of secondary data; Sampling: Census method vs. sample method; Classification of data: Meaning, methods of classification; Tabulation of data: meaning, role, parts of a table; General rules of tabulation; Presentation of data; Diagrams and graphs: General rules for construction a diagram; Types of diagrams; Types of graphs; Software Applications.</p>	CO1
	<p>MODULE II: Measures of Central Tendency and Dispersion Measures of Central Tendency: Mean, median and mode; Geometric and Harmonic means; Measures of Dispersion: Range, inter-quartile range and quartile deviation, mean deviation, standard deviation and Lorenz curve, Moments, Skewness and Kurtosis; Partition Values: Quartiles; deciles; percentiles; Software applications.</p>	CO2

	<p>MODULE III: Correlation and Linear Regression Model Correlation Analysis: Meaning, types of correlation; Methods of studying correlation: Scatter diagram method, Karl Pearson's coefficient of correlation, Spearman's rank method, concurrent deviation method; Testing the significance of the correlation coefficient; Method of least squares: Introduction, estimation, the standard error of estimate, the coefficient of determination, properties of an OLS estimator.</p>	CO3
	<p>MODULE IV: Time Series Statistics Measurement of Secular trend: Free hand curve method or eye inspection method - Semi average method; Method of moving average; Method of least squares. Measurement of seasonal variations: Method of simple averages; Ratio to trend method; Ratio to moving average method; Link relative method.</p>	CO4
	<p>MODULE V: Index Numbers Meaning and importance; problems in the construction of index numbers; Types of index numbers: price index; quantity index; value index; construction of price index numbers: unweighted and weighted indices (Laspeyres's index, Paasche's index, Fishers ideal index); construction of quantity and value indices; tests of index numbers: Time reversal test; Factor reversal test; Splicing: Deflating process; Consumer Price Index (CPI): meaning and uses; problems in the construction of cost of living index; Methods of constructing cost of living index: Aggregate expenditure and family budget methods; Limitations of index numbers; Software applications.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2014). Essentials of Statistics for Business and Economics. Boston: Cengage Learning. Lind, D. A., Waite, C. A., Marchal, W. G., & Wathen, S. A. (2005). Basic Statistics for Business & Economics. New York: McGraw-Hill. Sharma, J. K. (2010). Fundamentals of Business Statistics. (2nd ed.). New Delhi: Vikas Publishing House. <p>Reference Books</p> <ol style="list-style-type: none"> Croxtan, F. E., & Cowden, D. J. (1964). Applied General Statistics. (2nd ed.). New Delhi: Prentice Hall of India Private Limited. 	

		2. Freund, J. E., & Perles, B. M. (2007). Modern Elementary Statistics. (12th ed.). New Jersey: Prentice Hall.
--	--	--

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	INTERMEDIATE STATISTICS
Course Code	BSCE19

Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> • To acquire advance skills in applied statistics • To develop skills in the field of economic analysis and reasoning; • To develop skills in the analysis and presentation of data to solve economic and business problem. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the advance framework of statistics (CO1) • Apply advance statistical tools & techniques for economics problem (CO2) • Analyze comprehensive statistical method and its implication (CO3) • Evaluate the implication of regress statistical techniques in economic analysis (CO4) • Develop an advance statistical framework for economics policy making (CO5) 	
Pre-Requisite	Basic understanding of statistics	
Course Outline	Description	CO Mapping
	<p>MODULE I: Elementary Probability Theory and Distribution Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence.</p>	CO1
	<p>MODULE II: Random Variables and Probability Distributions Defining random variables; Probability distributions; Expected values of random variables and functions of random variables; Properties of commonly used discrete and continuous distributions (Uniform, Binomial, and Normal, variables).</p>	CO2
	<p>MODULE III: Testing of Hypothesis: Basic Concepts Meaning of hypothesis; Types and steps in testing of hypothesis; Flow diagram for hypothesis testing; Type I and Type II error; Two-tailed and One-tailed tests (basics); Importance of parametric and non-parametric tools.</p>	CO3

	<p>MODULE IV: Testing of Hypothesis: Parametric Tests ‘t’ Test: One sample ‘t’ test; Independent sample ‘t’ test; Paired sample ‘t’ test; Analysis of variance (ANOVA).</p>	CO4
	<p>MODULE V: Testing of Hypothesis: Non-Parametric Tests Introduction; types of non- parametric test, Chi-square test; Phi co-efficient; Mann-Whitney test; Hands-on training about the non-parametric test with help of analytical software such as N-Vivo, SPSS and Amos etc.</p>	CO5
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2014). Essentials of Statistics for Business and Economics. Boston: Cengage Learning. Lind, D. A., Waite, C. A., Marchal, W. G., & Wathen, S. A. (2005). Basic Statistics for Business & Economics. New York: McGraw-Hill. Sharma, J. K. (2010). Fundamentals of Business Statistics. (2nd ed.). New Delhi: Vikas Publishing House. <p>Reference Books</p> <ol style="list-style-type: none"> Croxtan, F. E., & Cowden, D. J. (1964). Applied General Statistics. (2nd ed.). New Delhi: Prentice Hall of India Private Limited. Freund, J. E., & Perles, B. M. (2007). Modern Elementary Statistics. (12th ed.). New Jersey: Prentice Hall. 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects	Case analysis, Exercise and Presentation	4

		to be given.		
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	RESEARCH METHODOLOGY AND ACADEMIC REPORT WRITING	
Course Code	BSCE19	
Course Credit	4	
Semester	VII	
Sessions	60 Hours (45-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> • To understand the importance of research in creating and extending the knowledge base in their area of research interest • To develop their ability to distinguish between the strengths and limitations of different research approaches in general and in their research area specifically. • To gain skills required to work independently, so that they can plan and carry out a small-scale research project. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic framework of (CO1) • Apply research tools & techniques for economics problem (CO2) • Analyze comprehensive research method and its implication (CO3) • Evaluate the implication of research techniques in economic analysis (CO4) • Develop an advance research framework for economics policy making (CO5) 	
Pre-Requisite	Basic understanding of statistics	
Course Outline	Description	CO Mapping
	<p>MODULE I: Meaning and Definition of Research Meaning and definition of research; criteria for good research; objectives of research; difficulties in social research; utility of research.</p>	CO1

		MODULE II: Philosophy and Methods of Social Research Research Philosophy: Positivism, Interpretivism and Realism; Deductive and inductive methods; classification of research.	CO2
		MODULE III: Selection of Research Problem Steps involved in selection of research problem; evaluation of the problem; literature review, sources of literatures	CO3
		MODULE IV: Research Design and Sampling Research design: Meaning, types and evaluation of research design; Research Ethics in designing, data collection and analysis. Sampling and Sample Design Meaning of sampling; Sampling process; Methods of sampling; Sampling errors; Calculating sample size.	CO4
		MODULE V: Report Writing Types of report; Planning of report writing; Format of research report; Reference styles.	CO5
Pedagogy	Presentation, class participation, peer/group work, case study		
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks		
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> 1. Cargan, L. (2007). Doing Social Research. Lanham, MD: Rowman & Littlefield Publishers. 2. Kothari, C. R. (2014). Research Methodology: Methods and Techniques (2nd ed.). New Delhi: New Age International Publishers. 3. Saunders, M., Lewis, P., & Thornhill, A. (2011). Research Methods for Business Students (5th ed.). New Delhi: Pearson Education Ltd. <p>Reference Books</p> <ol style="list-style-type: none"> 1. Andres, L. (2012). Designing & Doing Survey Research. London: SAGE Publications. 2. Buchanan, D. A., & Bryman, A. (2009). The SAGE Handbook of Organizational Research Methods. London: SAGE Publications. 		

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level

1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			

Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

**ABILITY ENHANCEMENT AND SKILL
ENHANCEMENT COURSES OFFRED FROM BIRLA
SCHOOL OF ECONOMICS**

Course Name	Entrepreneurship	
Types of Course	Ability Enhancement	
Course Code	SEC1	
Course Credit	3	
Semester	III	
Sessions	Hours (30-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> ● To provide students with a foundational understanding of entrepreneurship from an economic perspective. ● To develop the mindset, skills, and knowledge necessary to evaluate, plan, and launch new ventures. ● To explore the role of entrepreneurship in economic development, innovation, and job creation 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic concept of entrepreneurship (CO1) ● Apply economic reasoning to assess entrepreneurial opportunities and market dynamics (CO2) ● Analyze the various entrepreneurship skills (CO3) ● Evaluate the outcome of entrepreneurship (CO4) ● Develop a feasible business plan integrating financial, strategic, and operational considerations (CO5) 	
Pre-Requisite	Basic understanding of statistics	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction to Entrepreneurship Definition, nature, and scope of entrepreneurship, Evolution of entrepreneurial thought, Types of entrepreneurs: social, tech, lifestyle, intrapreneurs , Importance of entrepreneurship in economic development</p>	CO1
	<p>MODULE II: Economics of Entrepreneurship Entrepreneur as an economic agent, Role of entrepreneurship in market dynamics and innovation, Opportunity cost, risk and uncertainty in entrepreneurial decision-making, Schumpeter's theory of innovation and</p>	CO2

	creative destruction	
	<p>MODULE III: Entrepreneurial Process and Opportunity Identification</p> <p>Idea generation and opportunity recognition, Feasibility analysis: market, technical, financial, and economic, Business models and value proposition, Lean startup methodology</p>	CO3
	<p>MODULE IV: Business Planning and Strategy</p> <p>Writing a business plan: structure and components, Financial planning and funding sources (bootstrapping, angel investors, VCs), Cost structures, revenue models, and breakeven analysis, Legal aspects: business registration, IP, taxation basics</p>	CO4
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	
Suggested Readings :	<p>Text Book</p> <ol style="list-style-type: none"> 1. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2019). Entrepreneurship (10th ed.). McGraw-Hill Education. 2. Drucker, P. F. (2006). Innovation and entrepreneurship: Practice and principles. HarperBusiness. (Original work published 1985) 3. Parker, S. C. (2009). The economics of entrepreneurship. Cambridge University Press <p>Reference Books</p> <ol style="list-style-type: none"> 1. Scarborough, N. M. (2016). Essentials of entrepreneurship and small business management (8th ed.). Pearson Education. 	

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
-----------	-----------------------	--------------------------------	-------------------	------------------------

1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		

Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	EXCEL AND DATA VISUALIZATION	
Types of Course	Skill Enhancement	
Course Code	SEC1	
Course Credit	2	
Semester	III	
Sessions	Hours (15-L, 15-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> ● Use Excel efficiently for data entry, formatting, and formula-based calculations ● Apply functions and tools for descriptive statistical analysis ● Create professional charts and dashboards to represent economic and business data ● Interpret data visualizations for informed decision-making 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> ● Understand the basic concept of excel (CO1) ● Apply various excel tools & techniques for economic and business problem (CO2) ● Analyze the various excel tool for data analysis (CO3) ● Evaluate the outcome of excel modelling and data visualization (CO4) ● Develop the excel model for business problem (CO5) 	
Pre-Requisite	Basic understanding of statistics	
Course Outline	Description	CO Mapping
	<p>MODULE I: Introduction to Excel and Data Handling Understanding the Excel interface, Data types, formatting, and cell references Sorting, filtering, and conditional formatting, Basic formulas and functions (SUM, AVERAGE, COUNT, IF)</p>	CO1
	<p>MODULE II: Statistical Functions and Data Summary Descriptive statistics using built-in functions: MEAN, MEDIAN, MODE, STDEV, Frequency distributions and data tables, Use of Data Analysis Toolpak for basic analytics, Lookup functions: VLOOKUP, HLOOKUP, INDEX-MATCH</p>	CO2
	<p>MODULE III: Data Visualization and Charts Creating charts: bar, line, column, pie, scatter plots Chart customization: legends, labels, axes, styles Creating dynamic charts using drop-downs and slicers, Use of sparklines and trendlines</p>	CO3
	<p>MODULE IV: Introduction to Dashboards and Reporting Designing dashboards using multiple charts and pivot tables, Interactive features: slicers, timelines, form controls, formatting for presentation and printing, Case study: Building a dashboard using economic/business data</p>	CO4

Pedagogy	Presentation, class participation, peer/group work, case study
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks
Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> Walkenbach, J. (2015). Excel 2016 Bible. Wiley. Reding, E. E. (2017). Microsoft Excel 2016: Introductory. Cengage Learning Alexander, M., & Walkenbach, J. (2015). Excel dashboards and reports for dummies (3rd ed.). Wiley <p>Reference Books</p> <ol style="list-style-type: none"> Jain, D. (2020). Data analysis and business modeling using Excel. Dreamtech Press. Sharma, V. (2022). Excel for data analytics. V&S Publishers.

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

Level 1: Remembering

Level 2: Understanding

Level 3: Applying

Level 4: Analyzing

Level 5: Evaluating

Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution**Continuous Internal Evaluation (CIE)- 40 Marks**

Bloom's Category	Presentation/Quiz/GD etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	

Course Name	INTRODUCTION TO ‘R’ AND ‘SPSS’	
Types of Course	Skill Enhancement	
Course Code	SEC2	
Course Credit	2	
Semester	V	
Sessions	Hours (0-L, 30-T)	
Course Objective	<p>This course has been designed to help students</p> <ul style="list-style-type: none"> • To introduce students to two widely used statistical software packages: R and SPSS. • To enable students to conduct basic data analysis and visualization. • To apply statistical techniques in economic data interpretation using R and SPSS. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <ul style="list-style-type: none"> • Understand the basic functionality and user interface of R and SPSS software (CO1) • Apply software skills to real-world economic data for interpretation and reporting (CO2) • Analyze the various tool of R and SPSS for data analysis (CO3) • Evaluate the outcome of R and SPSS software (CO4) • Develop the basic model of data analysis with R (CO5) 	
Pre-Requisite	Basic understanding of statistics	
Course Outline	Description	CO Mapping
	<p>MODULE I: Basics of Statistical Software Role of software in empirical economic research, Introduction to data formats: CSV, Excel, RData, SAV</p>	CO1
	<p>MODULE II: Getting Started with SPSS Interface and navigation, Importing data and variable view, Descriptive statistics (mean, median, mode, standard deviation), Frequency distributions and cross-tabulations, Charts and graphs (bar, pie, histogram)</p>	CO2
	<p>MODULE III: Installing R and RStudio R syntax, objects, and basic data types, Importing and exporting data, Descriptive statistics using R, Basic data visualization using ggplot</p>	CO3
Pedagogy	Presentation, class participation, peer/group work, case study	
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks</p> <p>End-Term Evaluation : 60 marks</p>	

Suggested Readings:	<p>Text Book</p> <ol style="list-style-type: none"> 1. Field, A. (2017). <i>Discovering statistics using IBM SPSS statistics</i> (5th ed.). SAGE Publications. 2. 3. Verzani, J. (2014). <i>Getting started with R: An introduction for biologists</i> (2nd ed.). Oxford University Press. 4. (Note: Though biology-focused, it's beginner-friendly and excellent for understanding core R functions.) <p>Reference Books</p> <ol style="list-style-type: none"> 1. Pallant, J. (2020). <i>SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS</i> (7th ed.). McGraw-Hill Education.
----------------------------	--

Facilitating the achievement of Course Outcomes

ModuleNo.	Course Outcomes (COs)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Active learning and application with the help of small group exercises, quiz	2
2.	CO2	Lecture, presentation and activity. Topics for short term projects to be given.	Case analysis, Exercise and Presentation	4
3.	CO3	Lecture, Case analysis, role play and activity	Case analysis and designing some games	3
4.	CO4	Lecture, discussion, case studies, presentation	Assignment and activity	5
5.	CO5	Lecture, discussion, case studies, presentation	Assignment and activity	5

Bloom's Taxonomy:

- Level 1: Remembering
- Level 2: Understanding
- Level 3: Applying
- Level 4: Analyzing
- Level 5: Evaluating
- Level 6: Creating

Mapping of the Course Outcomes to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (POs)										
	PO 1	PO 2	PO 3	PO4	PO 5	PO6	PO 7	PO8	PSO1	PSO2	PSO3
CO 1	1		3						2		2
CO 2			3						1	1	2
CO 3			3							1	2
CO 4			3						1		2
CO 5			3				3			1	1

Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Presentation/Quiz/G D etc (10)	Writing Assignments and Practical (10)	Live Project (20)
Remember			
Understand	5		
Apply	5	5	5
Analyze		5	5
Evaluate			5
Create			5

End Semester Examination (ESE)- 60 Marks

Bloom's Taxonomy Level	Test Marks
Remember	
Understand	10
Apply	20
Analyze	15
Evaluate	15
Create	
