



MSc. Economics

(AS PER NEP 2020)

PROGRAMME STRUCTURE & SYLLABUS

**Approved by Board of Studies
04 September 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	i
3	Academic Programs Offered	ii
4	About Master of Science in Economics (MSc. Economics)	vii
5	Pedagogy	iv
6	Program Structure	vii
7	Course Details	1
8	Program Elective Courses (Semester III)	71
9	Program Elective Courses (Semester IV)	103
10	Discipline Specific Course for Two Years MSc. Economics - Course Work with Research Discipline Specific Course for Two Years MSc. Economics with Research Only	135

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.

3. Academic Programs Offered

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

4. About Master of Science in Economics (MSc. Economics)

The Post Graduate Programme in Economics (MSc. Economics) at the Birla School of Economics, Birla Global University, Bhubaneswar is designed for students to grow as competent, self-reflective learners with relevant academic and professional skills who can contribute to the growing discipline of Economics along with the necessary research skill set. The academic significance of Economics study is on the growing demand of specialized professional in the field of economics.

The Programme aims to train students in both qualitative and quantitative directions where they would learn to explore the learning principles and employ their growing expertise in real-life settings. The MSc. Economics at BGU includes compulsory/major courses, elective courses, and practical. Its curriculum is meticulously crafted to address the demands and challenges of corporate needs. The program has a student-centered approach, focusing on individual students and trying to improve their knowledge, skills, and employability. Additionally, students will also be trained in research methodology and research techniques.

4.1. Nomenclature Used in the Syllabus as per NEP-2020

- **Programme Educational Objective (PEO)**
PEOs are broad statements that describe the career and professional accomplishments that graduates of a programme are expected to achieve within a few years of graduation.
- **Programme Outcome (PO)**
POs are specific statements that describe what students are expected to know and be able to do by the time they complete a programme.
- **Programme Specific Outcome (PSO)**
PSOs are similar to POs but are more specific to a particular specialization or focus area within a programme.
- **Course Outcome (CO)**
COs are statements that describe the specific learning objectives of individual courses within a programme.

4.2. Programme Educational Objectives (PEOs)

PEO-1 Students will have proficiency in applying economic concept for solving practical problem.

PEO-2 Graduates will apply the empirical skill and can choose diverse careers option in different functional area of finance and economics.

PEO-3 Student will develop a positive attitude, interpersonal and leadership skills of the students through co-curricular and extracurricular activities.

PEO-4 Graduates will establish themselves as successful global professionals by solving real-life problems using scientific knowledge and analytical skills gained in the field of finance and economics.

PEO-5 The graduates will practice moral values, professional ethics and social responsibilities while performing their duties to provide solutions to global problems.

4.3. Programme Outcomes (POs)

On successful completion of the Programme, students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

4.4. Programme Specific Outcomes (PSO)

On successful completion of the MSc Economics Programme, students will be able to:

1. Apply the multidisciplinary knowledge and skills to solve economic problems
2. Demonstrate ethical behavior, right attitude and human values in business practices
3. Develop sensitivity towards societal and ecological issues relevant to professional managerial practice through life- long learning

5. Pedagogy: The pedagogy adopted by the MSc. Economics 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 has to undergo six (6) weeks of a summer project in the local industry. 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 MSc. Economics students can participate.

Co-curricular Activities:

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

MSc. Economics
Effective from Admission Batch: 2026-27
Program Structure
[Option-1]
MSc. Economics with ‘Coursework’

Sl. No.	Course Code	Type of Course	Title of Paper	Teaching Load			Credits
				L	T	P	
SEMESTER-I							
				L	T	P	TOTAL
1	MEC1	DSC	Microeconomics-I	2	1	0	3
2	MEC2	DSC	Macroeconomics-I	2	1	0	3
3	MEC3	DSC	Mathematical Economics	3	1	0	4
4	MEC4	DSC	Statistics	3	1	0	4
5	MEC5	DSC	<i>MOOC /Online/Course</i>	2	1	0	3
6		MDC-1	<i>Multi-Disciplinary Course</i>	2	1	0	3
7		VAC-1	<i>Value Added Course</i>	Non Credit			
TOTAL				14	6	0	20
SEMESTER-II							
				L	T	P	TOTAL
1	MEC6	DSC	Microeconomics-II	2	1	0	3
2	MEC7	DSC	Macroeconomics-II	2	1	0	3
3	MEC8	DSC	Econometrics-I	3	1	0	4
4	MEC9	DSC	Economics of Growth and Development	2	1	0	3
5	MEC10	DSC	Research Methodology	3	1	0	4
6		GEC-1	<i>Generic Elective Course</i>	2	1	0	3
7		VAC-2	<i>Value Added Course</i>	Non Credit			
8		MDC-2	<i>Multi-Disciplinary Course</i>	Optional (Non-Credit)			
TOTAL				14	6	0	20
SEMESTER-III							
				L	T	P	TOTAL
1	MECSIP	DSC	Summer Internship	0	0	3	3
2	MEC11	DSC	Monetary Economics	2	1	0	3
3	MEC12	DSC	Indian Economy	2	1	0	3
4	MEC13	DSC	Public Economics	2	1	0	3
5	SEC1	SEC	<i>Skill Enhancement Course</i> Economics Lab	0	0	2	2
6		PEC-1	<i>Program Elective Course –I</i> (Choose from Group-A)	2	1	0	3
7		PEC-2	<i>Program Elective Course-II</i> (Choose from Group-A)	2	1	0	3
TOTAL				12	5	5	20
SEMESTER-IV							
				L	T	P	TOTAL
1	MECD14	DSC	Dissertation		1	3	4
2	MEC15	DSC	International Economics	3	1	0	4
3	MEC16	DSC	Environmental Economics	2	1	0	3
4	MEC17	DSC	Machine Learning in Economic Analysis	2	1	0	3
5		PEC-3	<i>Program Elective Course-III</i> (Choose from Group-B)	2	1	0	3
6		PEC-4	<i>Program Elective Course-IV</i> (Choose from Group-B)	2	1	0	3
TOTAL				11	6	3	20

[Option-2]
Semester III and IV program structure for
MSc. Economics ‘Coursework with Research’

S. No.	Course Code	Type of Course	Title of Paper	Teaching Load				Credits
SEMESTER-III								
				L	T	P	TOTAL	
1	MECSIP	DSC	Summer Internship	0	0	3	3	3
2	MEC17R1	DSC	Advance Research Methodology	2	1	0	3	3
3	MEC12	DSC	Indian Economy	2	1	0	3	3
4	MEC13	DSC	Public Economics	2	1	0	3	3
5	SEC1	SEC	<i>Skill Enhancement Course</i> Economics Lab	0	0	2	2	2
6		PEC-1	<i>Program Elective Course –I</i> (Choose from Group-A)	2	1	0	3	3
7		PEC-2	<i>Program Elective Course-II</i> (Choose from Group-A)	2	1	0	3	3
TOTAL				10	5	5	20	20
SEMESTER-IV								
				L	T	P	TOTAL	
1	MEC15R1	DSC	<i>Discipline Specific Course-III</i> (Choose from Group- B)	2	1	0	3	3
2	MEC16R2	DSC	<i>Discipline Specific Course-IV</i> (Choose from Group- B)	2	1	0	3	3
		DSC	Research Ethics	2	0	0	2	2
3	MECT	DSC	Master Thesis	0	3	9	12	12
TOTAL				6	5	9	20	20

[Option-3]
Semester III and IV program structure for
MSc. Economics with ‘Research’

S. No.	Course Code	Type of Course	Title of Paper	Teaching Load				Credits
SEMESTER-III								
				L	T	P	TOTAL	
1		DSC	<i>Discipline Specific Course –I</i> (Choose from Group-A)	2	1	0	3	3
2	MEC17R1	DSC	Advance Research Methodology	2	1	0	3	3
3	MEC16R2	DSC	Research Ethics	2	0	0	2	2
4	MECT-I	DSC	Master Thesis - I	0	3	9	12	12
TOTAL				6	5	9	20	20
SEMESTER-IV								
				L	T	P	TOTAL	
1		DSC	<i>Discipline Specific Course -II</i> (Choose from Group-B)	2	1	0	3	3
2	MECR3	DSC	Techniques of Research Writing	2	0	0	2	2
3	MECR4	DSC	Research Tools	2	0	1	3	3
4	MECT-II	DSC	Master Thesis - II	0	3	9	12	12
TOTAL				6	4	10	20	20

List of Program Elective Courses			
Group – A (Semester-III)		Group – B (Semester-IV)	
Course Code	Course Name	Course Code	Course Name
MSCEFE	Financial Econometrics	MEGTOT	Game Theory and Optimization Techniques
MSCEBA	Business Analytics	MSCEIF	International Finance
MSCEFEN	Financial Economics	MSCEBE	Behavioral Economics
MSCECM	Econometrics-II	MSCEPP	Python Programming
MSCEAE	Agricultural Economics	MSCEEE	Energy Economics
MSCEPE	Population Economics	MSCEGE	Gender Economics
MSCERE	Regional Economics	MSCEHE	Health Economics
MSCELE	Labor Economics	MSCEUE	Urban Economics

Note: A Minimum class size of students should be there to offer a course.

List of Generic Elective Course	List of Value Added Course	Multi –disciplinary Courses
1. Design and Creative Thinking Entrepreneurship	2. Developing Self for Corporate Readiness 3. Professional Writing and Presentation	1. Excel Modeling and Data Visualization 2. Data Analytics in Financial Decision Making 3. Business Analytics & Big Data 4. Cloud Computing 5. Accounting for Decision Making 6. Cost and Management Accounting 7. French Language 8. Financial Institutions and Market

Note: The above list is suggestive. However, students can choose any other courses offered by other schools

1. Eligibility for Admission:

- i. **Two Years MSc. Economics:** A Bachelor's degree (B.A./B.Sc./B.Com./BBA/Engineering etc.) having 'Economics /Statistics/ Mathematics' as one of the subjects with a minimum of 50% aggregate marks for open categories (45% for candidates belonging to reserved categories). Students not having 'Economics /Statistics/ Mathematics' as one of the subjects but have 50% aggregate marks are eligible to apply and have to undergo bridge course conducted by the school and secure minimum 50% mark for final admission.
- ii. **Lateral entry to Second Year for Option- 2 or 3:** Must have a 4 Year UG degree in Economics or Post-Graduate Diploma in Economics covering 40 credits (As per NEP 2020) and qualify the criteria for 'Research Track' (Refer to point no.3 below)

2. Award of Degree on Successful Completion of the Program

- i. **Students having 3 year UG degree,** exiting after completion of one year, with completion of courses equal to a minimum of 40 credits will be awarded Post-Graduate Diploma in Economics.
- ii. **Students having 3 Year UG degree,** completing two years (four semesters) with minimum 80 credits, will be awarded MSc. Economics with 'Coursework' for Option-1, MSc. Economics 'Coursework with Research' for option-2 and MSc. Economics with 'Research' for Option-3.
- iii. **Students having 4 Year UG degree in Economics or Post-Graduate Diploma in Economics** directly admitted to 2nd year (Semester-III), after completion of one year with minimum of 40 credits will be awarded MSc. Economics 'Coursework with Research' for Option-2 and MSc. Economics 'With Research' for Option-3.

3. Criteria for selection of students of research track:

The following criteria will be applicable for the selection of students opting for a research track i.e Option-II and III in the 2nd year of the PG program:

a) Eligibility to apply:

- A student should have a minimum of 75% attendance in all courses in both Semesters I & II in order to be considered for the research track in the 2nd year.
- **Academic Performance:**
A student should have a minimum CGPA of 7.5 at the end of the first semester without any backlogs.

b) Selection Criteria:

- A student will have to appear for the 'Research Aptitude Test' to be conducted by the school and has to score a minimum of 50% in the same.
- A student should have secured minimum CGPA of 7.5 at the end of the second semester without any backlogs.
- The shortlisted students will have to appear interview before the selection committee for final selection.

4. Selection of Program Elective Courses

Students have to select two courses from group A for Semester-III and two courses from group B for semester-IV as program elective courses.

5. Summer Internship

Students will do summer internship during summer gap after second semester and the Evaluation will be done in the third semester for students opting either Option -1 or 2.

6. Value Added, Skill Enhancement Courses and MOOCs

Students are encouraged to choose value added courses and skill enhancement courses offered by other schools of the university or from MOOCs. One online MOOCs course will be offered relating to master level economics or other area which will add value.

7. Community Engagement and Club-Conduit Activities

Students should engage themselves in different community engagement activities conducted by the university through different conduits.

8. List of Courses Multidisciplinary Courses Can Be Chosen by Students of Other School

Following courses can be chosen by the students of PG programs of other schools. However, students should see the announcement by the school before commencing the semester regarding list of courses going to be offered in the coming semester.

Course Code	Course Name	Credit
MEC1	Microeconomics-I	3
MEC2	Macroeconomics-I	3
MEC4	Statistics	4
MEC8	Econometrics-I	4
MEC10	Research Methodology	4
MEC13	Public Economics	3
MEC12	Indian Economy	3
MEC15	International Economics	4

MSc. Economics

COURSE DETAILS

[SEMSTER – I]

Course Name	Microeconomics I	
Course Code	MEC1	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in economy • To sensitize students about the implications of microeconomic concepts for managerial decisions • To highlight the interaction of government and market forces in the economy • To equip students with the ability to critically analyze production and market strategies of firms in various industry for managerial decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand microeconomic concepts and its importance for managerial decision.</p> <p>CO2: Analyze the business issues and role of managers for effective rational economic decisions.</p> <p>CO3: Apply the micro economic concepts of cost, nature of production and its relationship profit maximization.</p> <p>CO4: Evaluate competition strategies, including, costing, pricing, product differentiation, and market environment.</p> <p>CO5: Develop managerial decisions and business models</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Theory of Consumer Behavior: Consumption Decision- Optimization under alternative preference structures- duality - utility, indifference curves and revealed preference; Comparative statics of the consumer's decision - Slutsky equation, normal versus inferior goods, derivation of demand curves; demand elasticity; Welfare evaluation - consumer surplus, equivalent variation and compensating variation. Utility theory under Uncertainty - expected utility function, measures of risks.</p>	CO1
	<p>Module II Production and Cost: Production functions, types of production functions (Cobb-Douglas, CES, Duality etc.), marginal products, rate of technical substitution, technical progress, cost functions, average and marginal costs, short run versus long run costs, economies of scale and scope, profit maximization, cost minimization, derivation of input demand, Traditional and modern theories of Costs – Derivation of cost curve from production function. Module III Competitive Markets: Assumptions of</p>	CO2

	perfect market, competitive markets – demand and supply, demand and supply curves of individual firms, short-run versus long-run, competitive market equilibrium, tax incidence analysis, price-controls and shortages	
	Module III Competitive Markets: Assumptions of perfect market, competitive markets – demand and supply, demand and supply curves of individual firms, short-run versus long-run, competitive market equilibrium, tax incidence analysis, price-controls and shortages	CO3
	Module IV Imperfect Competition: Imperfect markets, sources of monopoly power, monopoly market equilibrium, price discrimination – first, second and third degree, tax incidence, Monopolistic Competition. Oligopoly-non collusive (Cournot, Kinked demand curve and Stackelberg’s solution) Bertrand Oligopoly Model and collusive (cartels and mergers, price leadership and basic point price system) models.	CO1,CO2
	Module V Pricing principle: Pricing principle - Break-even Analysis - Average or full cost pricing- Mark up pricing- Limit pricing theory- Bainsversion- silos - Labini model of limit pricing.	CO5,CO4
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"> • Koutsoyiannes. A, Modern Microeconomics. Macmillan Press Limited, New York, 2000. • Varian, H. R., Intermediate Microeconomics: A Modern Approach. 3rd edition, 2010. Reference Books: <ul style="list-style-type: none"> • Gravelle, H and R. Rees, Microeconomics. Pearson Education, 3rd Edition, 2004 • Henderson, M. and R.E. Quandt, Microeconomic Theory: Mathematical Approach. McGraw Hill, 3rd edition,1980 • Nicholson, W., Microeconomic Theory: Basic Principles and Extensions. eighth edition, South Western Thomson Learning, 2002 • Stigler. G, Theory of Price, Prentice Hall of India. 4th Edition, New Delhi, 1996. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Macroeconomics I	
Course Code	MEC2	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in economy • To sensitize students about the implications of microeconomic concepts for managerial decisions • To highlight the interaction of government and market forces in the economy • To equip students with the ability to critically analyze production and market strategies of firms in various industry for managerial decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand microeconomic concepts and its importance for managerial decision.</p> <p>CO2: Analyze the business issues and role of managers for effective rational economic decisions.</p> <p>CO3: Apply the micro economic concepts of cost, nature of production and its relationship profit maximization.</p> <p>CO4: Evaluate competition strategies, including, costing, pricing, product differentiation, and market environment.</p> <p>CO5: Develop managerial decisions and business models</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I National Income Accounting: Accounting structure, key concepts in accounting for both closed and open economies – gross national product, gross domestic product, net national product, national income, savings and investment, balance of payments, circular flow of income, computational problems – expenditure approach, income approach and value added approach for measurement, input-output tables; Measuring the Cost of Living (consumer and whole sale price indices).</p>	CO1
	<p>Module II Theories of Consumption: Difference between Potential Output and Actual Output- Classical Approach, Determination of output and employment Effects of change in Aggregate Demand and Supply Curves – The Psychological Law of Consumption – Kuznets’s Consumption Puzzle – Fisher’s Inter-temporal Choice Model – Permanent Income Hypothesis – Life Cycle Hypothesis.</p>	CO2

	<p>Module III Theories of Investment: The Neoclassical Theory of Investment – Capital Theory and Theory of the Firm – Finance and the Cost of Capital – The Accelerator Theory of Investment – The Stock Market and Tobin’s Q Theory – Inflation and Investment – Policies affecting Investment.</p>	CO3
	<p>Module IV Theories of Money Demand and Money Supply: Baumol Inventory Theory Approach – Liquidity Preference as Behavior towards – Risk (James Tobin) – A Restatement of Quantity Theory of Money (Milton Friedman) the Buffer Stock Notion (David Laidler) – Partial Adjustment Mechanism. The Concept and Measurement of High Powered Money – Sources of Variation in High Powered Money – The Money Multiplier Model – Factors affecting Money Multiplier – Behavioral Model of Money Supply – The Portfolio Model of Money Supply.</p>	CO1,CO2
	<p>Module V Neoclassical and Keynesian Macroeconomic Models: The Neoclassical and Keynesian version of IS-LM Model – Fiscal and Monetary Policy in ISLM Model – Fiscal Policy and Crowding out – Ricardian Equivalence – The Relative Efficacy of Fiscal and Monetary Policy – The Aggregate Supply in the Short and Long Run – Aggregate Demand and Price Determination – Pigou Effect and Real Balance Effect in the IS-LM Model – Aggregate Demand in the Open Economy – The Mundell-Fleming Model – The Fiscal and Monetary Policy Operation under Fixed and Floating Exchange Rate Regime.</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Samuelson, P. A and Nordhaus W. D, Macroeconomics, McGraw Hill, 2012. • Mankiw, N. Gregory, Principals of Macroeconomics. Seventh edition, Cengage Learning, 2014. D’souza Errol, Macroeconomics. Person Publication, New Delhi, 2008. <p>Reference Books:</p> <ul style="list-style-type: none"> • Alpha C Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill Education; Fourth edition, 2017. • David Romer, Advanced Macroeconomics. 4th edition, McGraw-Hill Irwin, 2012. • Brian Snowdon and Howard R. Vane, Modern Macroeconomics: It’s Origins, Development and Current State. Edward Elgar, UK, 2005. • Blanchard, O., and S. Fischer, Lectures on Macroeconomics. Cambridge, MA: MIT Press, 1989. Taylor, Lance, Reconstructing Macroeconomics - Structuralist Proposals and Critiques of the Mainstream, Harvard University Press, Cambridge, Massachusetts, 2004. • Obstfeld, M., and K. Rogoff, Foundations of International Macroeconomics. Cambridge, MA: MIT Press, 1996. • Dornbusch et al, Macroeconomics. 10th ed, Tata McGraw Hill, New Delhi, 2008. • R. T. Froyen, Macroeconomics, Theory and policies, Prentice 	

		Hall, 2008. <ul style="list-style-type: none"> Alpha C Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill Education; Fourth edition, 2017.
--	--	---

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Mathematical Economics	
Course Code	MEC3	
Course Credit	4	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in economy • To sensitize students about the implications of microeconomic concepts for managerial decisions • To highlight the interaction of government and market forces in the economy • To equip students with the ability to critically analyze production and market strategies of firms in various industry for managerial decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand microeconomic concepts and its importance for managerial decision.</p> <p>CO2: Analyze the business issues and role of managers for effective rational economic decisions.</p> <p>CO3: Apply the micro economic concepts of cost, nature of production and its relationship profit maximization.</p> <p>CO4: Evaluate competition strategies, including, costing, pricing, product differentiation, and market environment.</p> <p>CO5: Develop managerial decisions and business models</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Linear Algebra: Vectors, matrices, inverse, simultaneous linear equations, Cramer's rule for solving system of linear equations, input-output model, Hawkin - Simon condition, open and closed models quadratic equation, characteristic (eigen) roots and vectors.	CO1
	Module II Differential Calculus: Introduction to Functions and Real Analysis; Derivatives – partial and total, economic applications, marginal and elasticity concepts, functions of several variables, implicit function theorem, higher order derivatives and Young's theorem, Taylor's approximation, convex sets, convex and concave functions, properties of linear homogenous functions, Euler's theorem.	CO2
	Module III Classical Optimization and Applications: Introduction to quadratic forms, unconstrained optimization, constrained optimization with equality constraints, Lagrangian method, Hessian and Jacobian matrices, applications – utility maximization, cost minimization, profit	CO3

	– output maximization. Linear and Non-linear Optimization: Duality theory, constrained optimization with inequality and non-negativity constraints.	
	Module IV Integration: Integration; Indefinite and Definite Integral; Riemann integral; Numerical methods of evaluating the integral; Fundamental Theorem of the Calculus; Rules of Integration; Integration by substitution; Integration by Parts; Area between Curves; Improper Integrals; L’Hôpital’s Rule. Areas under curve-Definite and indefinite Integration, Application- Consumer Surplus and Producer Surplus.	CO1,CO2
	Module V: Difference and Differential Equations and Economic Applications : First order linear difference equations- Second order difference equations First order differential equations- Second order differential equations Application: Cobweb Market Model, Dynamic stability of Market price	CO5,CO4
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"> Chiang, A. C., Fundamental Methods of Mathematical Economics. McGraw-Hill, 1984. Simon, C. and L. Blume, Mathematics for Economists. Norton, London, 1994. Sydsaeter, K., Hammond, P., Seierstad, A., & Strom, A. Further mathematics for economic analysis. Pearson education, 2008 Reference Books: <ul style="list-style-type: none"> Bartle, R. G., & Sherbert, D. R, Introduction to real analysis. (Vol. 2). New York: Wiley, 2000. Knut Sydsaeter and Peter J. Hammond, Mathematics for Economic Analysis. Pearson Education Asia, 1995. M.D. Intriligator, Mathematical Optimization and Economic Theory. Prentice-Hall,1971. Wainwright, K, Fundamental methods of mathematical economics/Alpha C. Chiang, 2005. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Statistics	
Course Code	MEC4	
Course Credit	4	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in economy • To sensitize students about the implications of microeconomic concepts for managerial decisions • To highlight the interaction of government and market forces in the economy • To equip students with the ability to critically analyze production and market strategies of firms in various industry for managerial decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand microeconomic concepts and its importance for managerial decision.</p> <p>CO2: Analyze the business issues and role of managers for effective rational economic decisions.</p> <p>CO3: Apply the micro economic concepts of cost, nature of production and its relationship profit maximization.</p> <p>CO4: Evaluate competition strategies, including, costing, pricing, product differentiation, and market environment.</p> <p>CO5: Develop managerial decisions and business models</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Probability Theory: Concepts of probability, Addition and Multiplication theorems of probability, conditional probability and Bayes' theorem; Random variables –discrete and continuous, Density and distribution functions.	CO1
	Module II Probability Distributions: Discrete versus continuous distribution, uniform, binomial, Poisson, hypergeometric, exponential, and normal distribution. Bi-variate probability distribution, marginal and conditional distribution, statistical independence, characteristic function and moment generating function, functions of random variables.	CO2
	Module III Sampling Methods and Sampling distributions: Probability and non-probability sampling, Simple random sampling: with and without replacement, stratified random sampling, statistic and sample moments, sampling distributions: Standard Normal (Z), Student's-t, Chi-square and F-distribution, determinants of sample size, law of large numbers and Central Limit theorem	CO3
	Module IV Estimation: Point estimation of population mean for large sample and small sample, estimation of population proportion and population variance, introducing alternate estimation techniques, properties of good estimators: unbiasedness, consistency, efficiency, sufficiency, Interval	CO1,CO2

	estimation.	
	Module V Hypothesis Testing: Statistical hypothesis, simple versus composite hypothesis, critical region, types and size of error – type-I and type-II error, power of a test, p-value, Hypothesis test about: a population mean, population proportions, difference between two population means, difference between two proportions, a population variance, the ratio of two population variances, Tests of goodness of fit, the analysis of contingency tables (Chi-square test for testing independence of two classification criteria), test for correlation.	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Clark, Megan J. and John A. Randal, A First Course in Applied Statistics. Pearson education, New Zealand, 2011. • Nagar, A.L. and R.K Das, Basic Statistics, Oxford University Press,1983. • Ross, S, A First Course in Probability. 8th Edition, 2009. Pearson. <p>Reference Books:</p> <ul style="list-style-type: none"> • Allen Webster, Applied Statistics for Business and Economics. McGraw-Hill International Edition, 1998. • Hogg, R. and A. Craig, J., Introduction to Mathematical Statistics, McGraw-Hill, 1965. • Ken Black, Business statistics. John Wiley, student edition, 2004. • Levin R.I, Statistics for management. Prentice hall Inc, Paperback, 2008. • Miller, I. and M. Miller, Mathematical Statistics. 6th edition, Prentice Hall International, 1999. • Ross, S. M, Introduction to probability models. Academic press, 2014. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

[SEMESTER-II]

Course Name	Microeconomics-I I	
Course Code	FEC01	
Course Credit	4	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in economy • To sensitize students about the implications of microeconomic concepts for managerial decisions • To highlight the interaction of government and market forces in the economy • To equip students with the ability to critically analyze production and market strategies of firms in various industry for managerial decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand microeconomic concepts and its importance for managerial decision.</p> <p>CO2: Analyze the business issues and role of managers for effective rational economic decisions.</p> <p>CO3: Apply the micro economic concepts of cost, nature of production and its relationship profit maximization.</p> <p>CO4: Evaluate competition strategies, including, costing, pricing, product differentiation, and market environment.</p> <p>CO5: Develop managerial decisions and business models</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Managerial Models: Baumol's sales revenue maximization model; Williamson's model of managerial discretion; Marris model of managerial enterprise; Behavioural model of Cyert and March.	CO1
	Module II General Equilibrium and Welfare Economics: Partial Equilibrium versus General Equilibrium analysis, absolute versus relative prices, perfectly competitive price and general equilibrium models – with and without production, uniqueness and determinacy, Edgeworth box - contract curve, Pareto improvement and efficiency, Walrasian equilibrium, money in general equilibrium.	CO2
	Module III Welfare Economics: Arrow-Debreu economy, welfare theorems, existence of Walrasian equilibrium, fixed-point theorem, core and core convergence, general equilibrium with time and uncertainty, Jensen's Inequality, social welfare function, transfer efficiency; Kaldor-Hicks Samuelson criterion, Rawl's theory of social justice.	CO3

	<p>Module IV Market Failure and Public Goods: Reasons for market failure – market imperfections, public goods, externality, macro-economic factors; types of public goods, theory of public goods – 24 provision and pricing, government intervention, second-best solution, free riding, types of externalities – production and consumption externalities, Pigovian and Coasian solutions.</p>	CO1,CO2
	<p>Module V Asymmetric Information: Moral hazard problem, adverse selection, principal agent problem, market for lemon, credit market, implications of asymmetric information, market signaling, hidden information modeling, efficiency wage theory.</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Koutsoyiannes. A, Modern Microeconomics. Macmillan Press Limited, New York, 2000. • Varian, H. R., Intermediate Microeconomics: A Modern Approach. 3rd edition, 2010. <p>Reference Books:</p> <ul style="list-style-type: none"> • Gravelle, H and R. Rees, Microeconomics. Pearson Education, 3rd Edition, 2004 • Henderson, M. and R.E. Quandt, Microeconomic Theory: Mathematical Approach. McGraw Hill, 3rd edition,1980 • Nicholson, W., Microeconomic Theory: Basic Principles and Extensions. eighth edition, South Western Thomson Learning, 2002 • Stigler. G, Theory of Price, Prentice Hall of India. 4th Edition, New Delhi, 1996. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:**At the end of the programme, the students will be able to:****PO1:** Understand the economic concepts and practices in different domains of social and economic issues**PO2:** Analyze and devise solutions for multifunctional economic problems**PO3:** Analyze relevant global factors that influence decision-making in international economic affairs**PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems**PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams**PO6:** Examine ethical and societal concerns relating to multiple stakeholders**PO7:** Communicate effectively with various stakeholders in the context of economic issues**PO8:** Demonstrate entrepreneurial skills in dealing with economic problems**PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Macroeconomics II	
Course Code	MEC6	
Course Credit	4	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in economy • To sensitize students about the implications of microeconomic concepts for managerial decisions • To highlight the interaction of government and market forces in the economy • To equip students with the ability to critically analyze production and market strategies of firms in various industry for managerial decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand microeconomic concepts and its importance for managerial decision.</p> <p>CO2: Analyze the business issues and role of managers for effective rational economic decisions.</p> <p>CO3: Apply the micro economic concepts of cost, nature of production and its relationship profit maximization.</p> <p>CO4: Evaluate competition strategies, including, costing, pricing, product differentiation, and market environment.</p> <p>CO5: Develop managerial decisions and business models</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I The Labour Market: Measuring the Unemployment Rate – Unemployment, GDP and the Okun’s Law; Profit Maximization and Labour Demand – Utility and Labour Supply – Aggregate Supply– Neoclassical Labour Market Equilibrium – Introducing Unemployment – Principles of Effective Demand - The Keynesian Underemployment Equilibrium.	CO1
	Module II Inflation and Unemployment: The Phillip’s Relationship – Theoretical Underpinnings of Phillip’s Curve –Natural Rate Hypothesis – Theory of Adaptive Expectation – Expectation Augmented Phillip’s Curve – The Rational Expectation and Luca’s Supply function – Policy Ineffective Theorem – The Lucas Critique – Rational Expectation and Implications of Monetary Policy.	CO2
	Module III Theories of Business Cycles: Multiplier-Accelerator Interaction Model – Monetarists Interpretation of Business Cycles – Real Business Cycle Theory – Political Business Cycle Model.	CO3
	Module IV The Post Keynesian Macroeconomics: Walrasian and Keynesian Adjustment mechanism – Reinterpretation of Keynes – Dual Decision Hypothesis – Neo-Keynesian Quantity Constraint Models – Micro Theoretic foundations for Wage and Price Rigidity – Small Menu Cost – Efficient Wage Theory – Staggered Wage	CO1,CO2

	Setting – Insider- Outsider Model – Models of Coordination Failure.	
	<p>Module V Macroeconomic Crises and Policy Issues: Macroeconomic Policy Issues – Targets, Indicators and Instruments – Activist Policy – Gradualism versus Shock Therapy – Rules versus Discretion – Role of Credibility – Dynamic Inconsistency Problem – Inflation Targeting – Seignorage – Barro-Ricardo and Blinder-Solow Hypotheses – Political Economy of Stabilisation and Adjustment, monetary policy rules, Analysing economic crises: Characterising different types of crises (e.g., Sovereign Debt crises, currency crises, depressions, bank failures etc.); inter relations among different kinds of crises; causes of external crises; policy responses to external crises Causes, implications and policy response associated with the Global Financial crisis; the role of banks (including shadow banks), asset price bubbles and conventional and unconventional monetary and fiscal policy.</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Mankiw, N. Gregory, Principals of Macroeconomics. Seventh edition, Cengage Learning, 2014. D’souza Errol, Macroeconomics. Person Publication, New Delhi, 2008. • Samuelson, P. A and Nordhaus W. D, Macroeconomics, McGraw Hill, 2012. <p>Reference Books:</p> <ul style="list-style-type: none"> • Alpha C Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill Education; Fourth edition, 2017. • Alpha C Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill Education; Fourth edition, 2017. • Blanchard, O., and S. Fischer, Lectures on Macroeconomics. Cambridge, MA: MIT Press, 1989. Taylor, Lance, Reconstructing Macroeconomics - Structuralist Proposals and Critiques of the Mainstream, Harvard University Press, Cambridge, Massachusetts, 2004. • Brian Snowden and Howard R. Vane, Modern Macroeconomics: It's Origins, Development and Current State. Edward Elgar, UK, 2005. • David Romer, Advanced Macroeconomics. 4th edition, McGraw-Hill Irwin, 2012. • Dornbusch et al, Macroeconomics. 10th ed, Tata McGraw Hill, New Delhi, 2008. • Obstfeld, M., and K. Rogoff, Foundations of International Macroeconomics. Cambridge, MA: MIT Press, 1996. • R. T. Froyen, Macroeconomics, Theory and policies, Prentice Hall, 2008. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:**At the end of the programme, the students will be able to:****PO1:** Understand the economic concepts and practices in different domains of social and economic issues**PO2:** Analyze and devise solutions for multifunctional economic problems**PO3:** Analyze relevant global factors that influence decision-making in international economic affairs**PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems**PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams**PO6:** Examine ethical and societal concerns relating to multiple stakeholders**PO7:** Communicate effectively with various stakeholders in the context of economic issues**PO8:** Demonstrate entrepreneurial skills in dealing with economic problems**PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment**Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE) - 40 Marks**

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Econometrics-I	
Course Code	MEC8	
Course Credit	4	
Type of Course	Discipline Specific Course	
Semester	II	
Course Objective	<p>The objective of the course mainly</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 hand on exercise. 	
Course Outcome (CO)	<p>At the end of the course students will be able to:</p> <p>CO1: Understand Basic econometric techniques</p> <p>CO2: Apply various basic econometrics models in economics and financial issue</p> <p>CO3: Analyze simple economic issue with empirical investigation</p> <p>CO4: Evaluate the outcome of various economic and financial decision empirically</p> <p>CO5: Develop econometric concepts and interpretation</p>	
Pre-Requisite	Basic knowledge of economics, mathematics and statistics	
Course Outline	Description	CO Mapping
	<p>Module I: Meaning and Scope of Econometrics 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
	<p>Module 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>Module 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, reduction; Coefficient of Determination; Adjusted coefficient of Determination; Polynomial Regression Model</p>	CO3
	<p>Module 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>	CO1, CO2

	<p>Module V: Dummy Variables Introduction to Dummy variable, Estimation; testing the structural stability of regression models; Interaction effects; Seasonal analysis; Piecewise Linear regression. Chow test and other implication of dummy variable.</p>	CO4, CO5
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks, End-Term Evaluation : 60 marks</p>	
References	<p>Text Books:</p> <ul style="list-style-type: none"> • D. N. Gujarati, D. C. Porter, S. Gunasekar (2017); Basic Econometrics, Mcgraw; 5th edition. • Greene, W.H. (2000); Econometric Analysis, 4th edition, Prantice Hall. 6. J. M. Wooldridge (2019); Introductory Econometrics: A Modern Approach, Cengage Learning; 7 edition. • 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) <p>Other Readings:</p> <ul style="list-style-type: none"> • Statistics for Business and Economics - Anderson, Sweeney John E. Freund (1992); Mathematical Statistics, Prentice Hall. • Johnstone, J. (1994); Econometrics Methods, 3rd Edition, McGraw Hill, New York. • Koutsoyiannis, A. The Theory of Econometrics, 2nd Edition, ESLB. 	

Facilitating the achievement of Course Outcomes

Mod ule No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessm ent 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	1

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	3								
CO 2									
CO 3		3	2	3	2		1		
CO 4	3			3				1	
CO5						2			3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	10		
Apply	5	5	
Analyze		5	5
Evaluate		5	5
Create			

End Semester Examination (ESE) - 60 Marks

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

End Semester Examination (ESE)- 60 Marks

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

Course Name	Economics of Growth and Development	
Course Code	MEC9	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	II	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students, the concepts and theories of growth and development • To sensitize students about the implications of growth models • To highlight the interaction of government policy and economic development • To equip students with the ability to critically analyze and develop research interest for different developmental issues 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand theories of growth and development economics. CO2: Analyze growth and developmental issues CO3: Apply the concepts from growth and development economics for solving current issues CO4: Evaluate developmental policies of the government CO5: Develop analytical skill for possible research areas.</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Theories of Economic Growth: Harrod - Domar model, Solow model, comparative analysis; role of resources, technology and institutions; Instability & Convergence debate, Ms. Joan Robinson and Concept of Golden Age and Golden Rule of Accumulation; Endogenous Growth Theories.	CO1
	Module II Neo-Keynesian Models of Growth & Distribution: Kaldor and L. Pasinetti - Technology and Growth- Hicks, Harrod and Solow- Rosenstein – Rodan and Hirschman, Denison’s growth accounting – Contribution of labour, capital and Technology Neutrality of Technical Change, Embodied and Dis-embodied Technical Change, Growth Accounting, Money and Growth- James Tobin and H.G. Johnson.	CO2
	Module III Theories of Development: Introduction- Growth and Development-classical theories from Smith to Schumpeter with classical concepts of Development-partial theories of development- Critical minimum effort thesis- Lewis model of surplus labour, Fei rains model, Rostow’s stages in economic growth- Balanced growth-Unbalanced growth- Theory of ‘big push’-Myrdal on economic growth-Dualism, Neo-Marxist Development theories.	CO3
	Module IV Poverty and Inequality: Development Gap-poverty-Different approaches-money metric-tools of measurement- Capability Approach-HDI and HPI- inequality- Horizontal and Vertical-tools of measuring inequality – Gini Index.	CO1,CO2

	<p>Module V Human Resources and Labour Markets: Population as a challenge-Malthusian notion-simon's Challenge-demographic indicators- Demographic Dividend-New Challenges-Changing Demographic structure; segmented labour markets, unemployment (Harris-Todaro model, labour turnover model, efficiency wage hypothesis) sub-optimal employment, disguised unemployment, informal labour markets.</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Ehrman and T.N Sreenivasan, Handbook of Economic Development. Vol.3, Elsevier Amsterdam. Ghatak S, An Introduction to Development Economics. Routledge, London, 2003. • Thirlwall, 2006, Growth and development with special reference to developing countries. Palgrave Macmillan, 2006. <p>Reference Books:</p> <ul style="list-style-type: none"> • Agenor, P-R., and P. J. Montiel, Development Macroeconomics. Princeton University Press, 2008. • AK Sen, Growth Economics. Penguin, 1970. • Alain De Janvry and Elisabeth Sadoulet, Development Economics: Theory and Practice. Routledge, 2016. • Bardhan, P. and C. Udry, Development Microeconomics. Oxford University Press, Latest. • Barro, Robert J. and Xavier Sala-i-Martin, Economic Growth. McGraw-Hill, Latest. Jones C.I., Introduction to Economic Growth. W.W. Norton & Company, New York, Latest. Sen, Amartya, Development as Freedom. Oxford University Press, New Delhi, 2000 • Debraj Ray, Development Economics. Oxford University Press, 1999 • H.G. Jones, An Introduction to Modern Theories of Economic Growth. McGraw-Hill Book Company, Latest. K. Basu, Analytical Development Economics. MIT Press, 1997. • Krugman, Development, Geography and economic theory. MIT press, 1995. • Perkins, Radelet, Lindauer and Block, Economics of Development. (seventh edition), W. W. Norton& Company, 2012. • S Subbramian, The Poverty Line (Oxford India Short Introductions Series). Oxford University Press: Delhi, 2012. • Y. Hayami, Development Economics: From Poverty to the Wealth of Nations. 2nd Edition, OUP, 2001. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:**At the end of the programme, the students will be able to:**

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Research Methodology	
Course Code	MEC10	
Course Credit	4	
Course Type	Discipline Specific Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the research methodology in social sciences. • Equip students with sampling techniques to collect data, test hypotheses and evaluate research outcomes. • To draw inferences about research hypotheses. • To equip students with the ability to critically analyze a research project and write a report. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Introduces Research Methodology CO2: Discusses Sampling Techniques with examples CO3: Discusses data collection methods and measurement techniques CO4: Evaluates hypothesis testing with examples CO5: Provides tools for report writing</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction to Research Methodology: Philosophy of Research, Types of Research, Forming Research Questions and Framing Research Objectives, Significance of Research, Criteria of Good Research, Selecting and Defining a Research Problem, Important Concepts Related to Research Design, Problems Encountered by Researchers in India	CO1
	Module II Sampling Fundamentals: Census and Sample Survey, Need for Sampling, Steps in Sampling Design, Criteria of Selecting a Sampling Procedure, Characteristics of a Good Sample Design, Different Types of Sample Designs, Selecting a Random Sample, Complex Random Sampling Designs, Important Sampling Distributions, Central Limit Theorem, Sampling Theory, Concept of Standard Error	CO2
	Module III Measurement and Scaling Techniques: Measurement in Research, Measurement Scales, Sources of Error in Measurement, Tests of Sound Measurement, Scaling, Meaning of Scaling, Scale Classification Bases, Important Scaling Techniques, Scale Construction Techniques	CO2
	Module IV Methods of Data Collection: Collection of Primary Data, Collection of Data through Questionnaires, Collection of Data through Schedules, Difference between Questionnaires and Schedules, Some Other Methods of Data Collection, Collection of Secondary Data, Selection of Appropriate Method for Data Collection	CO3
	Module V Processing and Analysis of Data: Some Problems in Processing, Elements/Types of Analysis, Statistics in Research, Measures of Central Tendency, Measures of Dispersion, Measures of Asymmetry (Skewness), Measures of Relationship, Simple Regression Analysis, Multiple Correlation and	CO3

	Regression, Partial Correlation, Association in Case of Attributes, Other Measures	
	Module VI Testing of Hypotheses <i>Parametric Tests</i> - Basic Concepts Concerning Testing of Hypotheses, Procedure for Hypothesis Testing, Measuring the Power of a Hypothesis Test, Tests of Hypotheses, Important Parametric Tests, Limitations of the Tests of Hypotheses, Analysis of Variance and Covariance, <i>Non-Parametric Tests</i> - Important Nonparametric or Distribution-free Test, Relationship between Spearman's r_s and Kendall's W , Characteristics of Distribution-free or Non-parametric Tests	CO4
	Module VII Multivariate Analysis Techniques Variables in Multivariate Analysis, Classification of Multivariate Techniques, Important Multivariate Techniques, Important Methods of Factor Analysis, Path Analysis, Appropriateness of a Particular Multivariate Technique	CO4
	Module VIII Interpretation and Report Writing Significance of Report Writing, Different Steps in Writing Report, Layout of the Research Report, Types of Reports, Writing a Research Report, Precautions for Writing Research Reports, Oral Presentation	CO5
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. (2004). <i>Research methodology: Methods and techniques</i>. New Age International. Perry-Sizemore, E., & Greenlaw, S. A. (2012). 12 Writing for learning in economics. <i>International handbook on teaching and learning economics</i>, 137. Reference Books: <ul style="list-style-type: none"> Cronin, B. (Ed.). (2016). <i>Handbook of research methods and applications in heterodox economics</i>. Edward Elgar Publishing. Devi, P. S. (2017). <i>Research methodology: A handbook for beginners</i>. Notion Press. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts of data handling and research methodology
- PO2:** Analyze and devise solutions for dealing with different types of data
- PO3:** Analyze critical reading, evaluation and application of research problem
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic and financial problems
- PO5:** Develop acumen to perform various roles effectively as a researcher
- PO6:** Examine ethical and societal concerns relating to research
- PO7:** Able to effectively find solution to complex economic problem
- PO8:** Demonstrate ability to critically think and provide recommendation for a problem
- PO9:** Recognize and appreciate the systematic way to get around a research problem

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

[SEMESTER-III]

Course Name	Summer Internship	
Course Code	MECSIP	
Course Credit	Program Core	
Course Type	3	
Semester	III	
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> <p>CO1: Understand and experience real market problems. CO2: Analyze the data and find solutions. CO3: Apply the concepts for policy evaluation and take financial decision. CO4: Evaluate organizational culture and work in a team. CO5: Create and develop report for policy recommendation</p>	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>Students will do internship during summer gap after the semester-II. The students need to appear for a final presentation and viva voce. Student will be considered as an intern and complete the internship 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.</p> <p>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 internship the student has to submit a summer internship report as per the prescribed format along with a certificate of completion duly signed by the company guide.</p>	CO1 CO2 CO3 CO4 CO5
Evaluation	<p>Attendance (10 marks); Report (70 Marks); Presentation/Viva voce (20 Marks). The grade of assessment will be included in the grade sheet of semester - III</p>	

Course Name	Econometrics II	
Course Code	MEC11	
Course Credit	4	
Type of Course	Discipline Specific Course	
Semester	III	
Course Objective	<p>The objective of the course mainly</p> <ul style="list-style-type: none"> • To discuss the measurement of advanced economic relationships and forecast the economic variables. • To improve the students' abilities on formulation and specifications of econometric models, estimating, testing of the models and doing research. • To use of such advanced econometrics models in economics and finance. The practical data set will be used for their hands-on exercise. 	
Course Outcome (CO)	<p>At the end of the course students will be able to:</p> <p>CO1: Understand Intermediate econometric techniques CO2: Apply various basic Intermediate econometrics models in economics and financial issues CO3: Analyze advanced economic issues with empirical investigation CO4: Evaluate the outcome of various economic and financial decisions empirically CO5: Develop advanced econometric concepts and interpretation</p>	
Pre-Requisite	Basic knowledge of econometrics, mathematics and statistics	
Course Outline	Description	CO Mapping
	Module I: Nonlinear Regression Models Meaning and Scope of nonlinear regression; Intrinsically Linear and Intrinsically Nonlinear Regression Models; Estimation of Linear and Nonlinear Regression Models; Estimating Nonlinear Regression Models: The Trial-and-Error Method; Linear Approximation of the Exponential Function Given in Equation.	CO1
	Module II: Qualitative Response Regression Models Introduction to Qualitative Response Regression Models; The Linear Probability Model (LPM), The Logit Model, Estimation of the Logit Model, The Probit Model, Estimation of the Probit Model; Logit and Probit Models; Introduction to Tobit Model.	CO1, CO2
	Module III: Instrumental Variables and Difference-in-Differences method of causality Instrumental Variables: conditions, LATE, weak instruments, Two-Stage Least Squares (2SLS) estimation, Applications and testing for instrument validity, Difference-in-Differences (DiD): parallel trends assumption, staggered adoption, event studies	CO3

	<p>Module IV: Extensions of DiD Multi-period DiD models, Staggered adoption of treatment across groups, Event study framework (dynamic treatment effects), Testing for pre-trends and anticipation effects, Triple Difference (DDD) models</p>	CO1, CO2
	<p>Module V: Panel Data Analysis Introduction to panel data analysis; Pooled Model Fixed Effects Model, Random Effects Model, First-Difference Model; LSDV Random Effect Model and Hausman Test, SUR Method; Introduction of Dynamic Panel (DP) Data Models, Instrumental Variable, GMM.</p>	CO4, CO5
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, S Project): 40 marks , End-Term Evaluation : 60 marks	
References	<p>Text Books:</p> <ul style="list-style-type: none"> • D. N. Gujarati, D. C. Porter, S. Gunasekar (2017); Basic Econometrics, Mcgraw; 5th edition. • Imbens, G. W., & Rubin, D. B. (2015). Causal inference for statistics, social, and biomedical sciences. Cambridge University Press. • Jeffrey Wooldridge (2019). Introductory Econometrics: A Modern Approach. South-Western College Publishing; 7th edition (4 January 2019) <p>Other Readings:</p> <ul style="list-style-type: none"> • Johnstone, J. (1994); Econometrics Methods, 3rd Edition, McGraw Hill, New York. • Koutsoyiannis, A. The Theory of Econometrics, 2nd Edition, ESLB. 	

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	1
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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	3								
CO 2									
CO 3		3	2	3	2		1		
CO 4	3			3				1	
CO5						2			3

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

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	10		
Apply	5	5	
Analyze		5	5
Evaluate		5	5
Create			

End Semester Examination (ESE) - 60 Marks

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

End Semester Examination (ESE)- 60 Marks

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

Course Name	Indian Economy	
Course Code	MEC12	
Course Credit	3	
Type of Course	Discipline Specific Course	
Semester	III	
Course Objective	<p>The objective of the course is</p> <ul style="list-style-type: none"> To provide overview of features and challenges confronting the Indian economy To develop analytical skill in the context of policy intervention for different sectorial problems 	
Course Outcome (CO)	<p>At the end of the course students will be able to: CO1: Understand the socio economic features of Indian economy CO2: Apply concept of economics for Indian economic challenges CO3: Analyze the economic policies CO4: Evaluate the performance of Indian economy in the global economy map CO5: Develop analytical skill for policy discourse and recommendation</p>	
Pre-Requisite	Basic knowledge of econometrics, mathematics and statistics	
Course Outline	Description	CO Mapping
	Module I: Introduction to Indian Economy: Features of Indian Economy – Demographic, Development indices, Inequality, Poverty, Unemployment, Inflation, Healthcare system, Education; trends	CO1
	<p>Module II: Sectoral comparison of Indian Economy: Agriculture- Growth and issues; Land reforms; Green revolution; Subsidies; Recent developments; Growth and efficiency; employment generation; Public distribution system; food security; storage management; issue of farmer suicides; policy interventions, regulations and reforms.</p> <p>Industry: Performance, problems and prospects; Capital formation; industrial infrastructure; Regional imbalances; MSME's; Output and employment; labour reforms; Development strategies and policy; Industrial growth; technology and innovation; industrial policy; Power sector reforms; Atmanirbhar Bharat. Service: Overview; Market size;</p> <p>Service sector led growth story; Employment; labour productivity; Policy intervention; ICT and economic growth; FDI inflows; Sub sector wise performance; informal sector; Digital India.</p>	CO1, CO2
	Module III: Policy Reforms: Economic Planning in India; Five Year Plans; Planning commission v/s NITI Ayog; New Economic Policy; Centre state Finance Relations, Finance commission; Monetary policy in India; Indian banking sector; priority sector lending; Insolvency and Bankruptcy code; J-A-M trinity; New Companies act; GST.	CO3

	<p>Module IV: Social Security: Social security measures in organized and unorganized sector; Pension; Health and medical insurance; disability benefits; Maternity benefits; Poverty alleviation schemes; MGNREGA; LPG distribution; Housing; Food Security Act.</p>	CO1, CO2
	<p>Module V: External Sector: India's foreign trade value composition and direction; Balance of payment since 1991; Foreign capital flow; Impact of Globalization on Indian Economy; WTO and India; Trade agreements; Free trade agreements; Trade in service sector; Impact of Global financial crisis. Geopolitical Risk and economic war</p>	CO4, CO5
Evaluation	<p>Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks, End-Term Evaluation : 60 marks</p>	
References	<p>Text Books:</p> <ul style="list-style-type: none"> Misra S.K. and V.K. Puri, (2024): Indian Economy, Himalaya, Publishing house, Mumbai. Uma Kapila (2019): Indian Economy-Since Independence-17th Edition, Academic Foundation. <p>Other Readings:</p> <ul style="list-style-type: none"> François Bourguignon, The Globalization of Inequality. Princeton University Press, 2015. G S Bhalla, Indian Agriculture since Independence. New Delhi: National Book Trust, 2007. Ghate, C. (Ed.), The oxford handbook of the Indian Economy. Oxford University Press, 2012. Krishna, K. L., Pandit, V., Sundaram, K., & Dua, P. (Eds.), Perspectives on Economic Development and Policy in India: In Honour of Suresh D. Tendulkar. Springer, 2016. Monetary Policy report, Reserve Bank of India (various editions) and Reports by various ministries, NITI Ayog. The Code on Social Security, https://prsindia.org/billtrack/the-code-on-social-security-2019 Montek S Ahluwalia, Planning, in Kaushik Basu and Annemie Maertens edited, The New Oxford Companion to Economics in India, Oxford University Press, 2012. R Nagaraj (ed), Growth, Inequality and Social Development in India: Is Inclusive Growth Possible? London, Palgrave Macmillan, 2012. Pulapre Balakrishnan (ed), Economic Growth and its Distribution: Essays from Economic and Political Weekly, Orient Blackswan, Hyderabad, 2015. Reserve Bank of India, Financial Stability Report. various editions. 	

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	1
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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	3								
CO 2									
CO 3		3	2	3	2		1		
CO 4	3			3				1	
CO5						2			3

Correlation level 1, 2 and 3 as

defined below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	10		
Apply	5	5	
Analyze		5	5
Evaluate		5	5
Create			

End Semester Examination (ESE) - 60 Marks

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

End Semester Examination (ESE)- 60 Marks

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

Course Name	Public Economics	
Course Code	MEC13	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To discuss facets of public economics from public goods to social security and taxes. • To sensitize students about the implications of public policies for public welfare. • To highlight the interaction of government and market forces in the economy for various instances of market failures and considers alternative government responses. • To equip students with the ability to critically analyze government policies and strategies for rational economic decision 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand concepts and its importance for public finance.</p> <p>CO2: Analyze public policies for economic efficiency and rational economic decision.</p> <p>CO3: Apply the concepts of public finance for maximum public welfare.</p> <p>CO4: Evaluate fiscal strategies in the context of changing global market dynamics</p> <p>CO5: Develop economic analysis and models for public distribution.</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Introduction to Public Economics: Role of government, Changing perspectives, government in a mixed economy. Private goods, public goods and merit goods. Market failure and its causes– imperfections, decreasing costs, externalities, public goods. Private and public mechanism for allocating resources. Fundamental principle of public finance – Maximum Social Advantage. Problems for allocating resources, Arrow’s Impossibility theorem-political equilibrium- voluntary exchange model and Samuelson’s impossibility of decentralised provision of public goods; Tiebout mode, Cost-benefit analysis-measuring the costs of public projects, measuring the benefits of public projects.</p>	CO1
	<p>Module II Public Revenue: Indian tax system; Revenue of the Union, State and local bodies; Direct and Indirect taxes- GST, taxation of agriculture, expenditure tax, reforms in direct and indirect taxes; Non-tax revenue. Effects of taxation, Principle of Taxation-Benefit theory, Ability to pay theory, features and trend of Indian tax system, problem of double taxation. Tax evasion and the black economy.</p>	CO2

	<p>Module III Public Expenditure: Theories of public expenditure, Cost Benefit Analysis, Social Rate of Discount, Shadow Prices; Social Security; consumption-smoothing benefits of social security, social security and retirement, optimal social insurance; unemployment benefits; health and insurance; income distribution and welfare programs; welfare policies in the India; moral hazard costs of welfare policy; cash transfers; universal basic income.</p>	CO3
	<p>Module IV Public Debt: Sources of public borrowing, importance of public borrowing, effects of public debt, tax vs. debt, burden of public debt, shifting of debt burden, Public Borrowings and Price Level; Crowding Out of Private Investment, methods of debt redemption, trends and pattern of public debt in India. Issues in public debt management.</p>	CO1,CO2
	<p>Module V Budgetary Policy and Fiscal Federalism: Balanced vs. unbalanced budget, budget as an instrument of economic policy, Objectives of fiscal policy, Interdependence of fiscal and monetary policies; budgetary deficits and its implications; Zero based budgeting; salient features of the most recent union budget of India. Fiscal federalism in India; Resource transfer from Union to States, Centre-State financial relation.</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Gruber, J, Public Finance and Public Policy. 5th edition, Worth Publishers, 2016. • Musgrave, R.A. and P. B. Musgrave, Public Finance in Theory and Practice. McGraw Hill, Kogakusha, Tokyo, 2017. <p>Reference Books:</p> <ul style="list-style-type: none"> • Rosen, H. and Gayer, T, Public Finance. 10th edition, McGraw-Hill, 2014. • Stiglitz, J. and Rosengard, J, Economics of the Public Sector. 4th edition, W. W. Nor-ton & Company, 2015. • D K Srivastava, Issues in Indian Public Finance, New Century Publications, Delhi, 2005. • Auerbach, A., Chetty, R., Feldstein M. and Saez, E, Handbook of public economics. vol. 5, 2013. • T. N. Hajela, Public Finance. ANE Books Pvt. Ltd, New Delhi, 2009. Hindriks, Jean and Gareth D. Myles, Intermediate Public Economics. Prentice Hall of India, 2006. • Raja Jesudoss Chelliah, D K Srivastava, U Sankar, Development and Public Finance: Essays in Honour of Raja J. Chelliah, , SAGE Publications, New Delhi, 2012. • Jha. R, Modern Public Economics. Routledge, London, 1998 • Atkinson, A.B. and J.E. Siglitz, Lectures on Public Economics. TMH, New York, 1980 Herber, B.P, Modern Public Finance. Richard D. Irwin, Homewood, 1967 • Atkinson, A and Stiglitz, J, Lectures in Public Economics. Mc GrawHill, New Delhi, 1980 • Cullis, J. and P. Jones, Public Finance and Public Choice. (2nd 	

		edition), Oxford University Press, 1998 • Government of India: Ministry of Finance, Budget Documents, various years. Central Statistical Organisation (CSO), National Account Statistics, Various years.
--	--	---

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

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

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Economics Lab	
Course Code	SEC1	
Course Credit	3	
Course Type	Skill Enhancement Course	
Semester	I	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To familiarize students with the use of statistical, econometric, and computational tools in economics. • To provide hands-on experience in data collection, data cleaning, and empirical analysis. • To enable students to apply economic theories to real-world datasets using software. • To train students in research design, interpretation, and presentation of results. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the use of statistical, econometric, and computational tools in economics.</p> <p>CO2: Analyze the statistical, econometric, and computational tools for economic and financial decisions.</p> <p>CO3: Apply the statistical and econometric models to solve the economic problems</p> <p>CO4: Evaluate the strengths and limitations of computational tools</p> <p>CO5: Develop and demonstrate sophisticated econometric and computational mechanism to tackle several policy level issues</p>	
Prerequisite	Basic understanding of statistics and econometrics	
Course Outline	Description	CO Mapping
	<p>Module I Introduction to Economics Lab Role of economics labs in research and policy analysis, Overview of data sources: World Bank, IMF, UNCTAD, RBI, NSSO, CMIE, etc. Introduction to datasets: cross-section, time series, panel</p>	CO1
	<p>Module II Statistical & Data Handling with Excel Descriptive statistics (mean, median, variance, skewness, kurtosis) Data visualization: histograms, scatter plots, heatmaps, dashboards Hypothesis testing: t-test, chi-square, ANOVA</p>	CO2
	<p>Module III Introduction to E-Views: Package handling and command descriptions of EVIEWS; creating work file and importing data – creating new series running simple statistical and econometric tools, generating histograms and trend line.</p>	CO3
	<p>Module IV Data Analysis Using E-Views Descriptive statistics (mean, median, variance, skewness, kurtosis) Data visualization: histograms, scatter plots, heatmaps, dashboards, Regression analysis, Panel data analysis.</p>	CO1,CO2
	<p>Module V: Introduction to R Installing R and R Studio, Basic syntax, variables, and data types, Data structures: vectors, lists, matrices, data frames, Importing/exporting data (CSV, Excel, etc.), Data</p>	CO5,CO4

	cleaning and manipulation, Using dplyr, tidyr, and readr, Summary statistics and basic descriptive analytics, Data visualization using ggplot2
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks, End-Term Evaluation : 60 marks
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Haldrup, N., & Jansson, M. (2016). A guide to econometrics using EViews. Oxford University Press. • Lafaye de Micheaux, P., Drouilhet, R., & Liquet, B. (2013). The R software: Fundamentals of programming and statistical analysis. Springer. • Oluwa, S. (2021). Practical business analytics using MS Excel. Apress. <p>Reference Books:</p> <ul style="list-style-type: none"> • Griffiths, W. E., Hill, R. C., & Lim, G. C. (2011). Using EViews for principles of econometrics (4th ed.). Wiley. • Kleiber, C., & Zeileis, A. (2008). Applied econometrics with R. Springer. • Winston, W. L. (2016). Data analysis and business modeling with Excel (5th ed.). Microsoft Press.

Facilitating the achievement of Course Outcomes

Mod ule No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessm ent 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 (COs) to the Programme Outcomes (POs)

Course Outcome (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

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

"2" – Moderate (Medium)

"3" – Substantial (High)

“-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

[SEMESTER-IV]

Course Name	Dissertation	
Course Code	MECD14	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <p>The course intends to give an opportunity to get exposed to research and also students are expected to complete a research project/dissertation under the expert guidance and supervision under a faculty guide. Elementary knowledge of research methodology shall consolidate and deepen their understanding of various branches of Economics. Preparing a dissertation is intended to train them in scientific thinking and art of systematic presentation. It is essentially a job-oriented exercise to enable them to take up the exciting field of social and economic research.</p>	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the concept of international trade.</p> <p>CO2: Analyze the theories and current problems of international trade</p> <p>CO3: Apply the relevant concept of international economics to find solution for the current problems</p> <p>CO4: Evaluate and develop economic analysis and models for international trade</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Dissertation: Structure and Evaluation</p> <p>a) Students shall submit a dissertation of maximum 25,000 words in three copies to the Head of the Department on or before time notified by the department during 4th Semester. The dissertation shall be prepared under the guidance of an internal post graduate recognized faculty, and the supervisors/guides will be allotted to students by the Head of the Department with a proper procedure.</p> <p>b) The supervisors shall be allotted to the students in the beginning of the concerned academic year (3rd Semester) in order to provide sufficient time for a qualitative dissertation work.</p> <p>c) Evaluation of the dissertation and presentation/viva voce shall have 70:30 weightages.</p> <p>d) The dissertation (writing part) shall carry 70</p>	CO1

	<p>marks out of which the internal and external examiners shall carry equal weightages. Assessment of each dissertation (writing part) out of 70 marks is based on the methodology, analysis, contents, report writing and quality of the research work.</p> <p>e) A presentation/ viva voce of each candidate shall be held where he/she will have to make a presentation of the dissertation and defend his/her research work. The viva voce shall carry 30 marks out of which the internal and external examiner(s) shall carry equal weightages.</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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined below:
“1” – Slight (Low)
“2” – Moderate (Medium)
“3” – Substantial (High)
“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10

Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	International Economics	
Course Code	MEC15	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To provide an understanding of theories of international trade, trade policies, balance of payments, international institutions, economic integration and Trade Policies in India. To improve the analytical skills of the students to relate theory with current trade affairs. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the concept of international trade.</p> <p>CO2: Analyze the theories and current problems of international trade</p> <p>CO3: Apply the relevant concept of international economics to find solution for the current problems</p> <p>CO4: Evaluate and develop economic analysis and models for international trade</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction to Trade: Adam Smith and Absolute Advantage, Labor Productivity and Comparative Advantage: The Ricardian comparative advantage model. Trade, Growth, and Economic Interrelatedness, Trade and National Characteristics, the Structure of Trade, Gains from trade with homogenous and heterogeneous agents, Offer curves: derivation; properties, related elasticities; Equilibrium Terms of Trade.	CO1
	Module II Trade Theories: Heckscher-Ohlin model, Stolper-Samuelson, Rybczynski theorem and factor price equalization theorem, Leontief paradox, empirical validity, Specific-factor model as a short-run Approximation.	CO2
	Module III Strategic Trade Policy: Tariffs and welfare dynamics for small and large countries perspective; Tariffs versus quantitative restrictions; the optimum tariff; Empirical modelling of trade policy; Monopolistic competition models of trade, Tariff versus quota under monopoly. Voluntary import expansion and export restrictions. Export Quotas, Subsidy, Dumping - Forms of Dumping - Antidumping and International Price Discrimination. Metzler Paradox; Effective. Rate of protection.	CO3
	Module IV Balance of Payments and Macro Adjustment Mechanisms: Balance of Payments, Capital Flows, National Accounts Determinants and Foreign exchange Market Equilibrium, The Elasticity Approach, Marshall-Lerner Condition, Multipliers, Mundell- Fleming Model, Purchasing Power Parity, Fischer Effect, Monetary Approach, Overshooting, Monetary Policy and Fiscal Policy, Fixed and	CO1,CO2

	Flexible Exchange Rate Regimes, Sterilization, Monetary and Fiscal Intervention, Devaluation and BOP Crisis, Capital Flight.	
	Module V Economic Integration and International Institutions: Forms of Economic and regional Integration: Regional Agreements ASEAN, NAFTA, European Union, Customs Union- Partial Equilibrium Analysis of Customs Union Trade Creation and Trade Diversion. Objectives and functions of IMF, IBRD, WTO, Free trade areas.	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Krugman P. R. and Obsfeild M, International Economics- Theory and Policy. 5th Edition. Addison Wesley, 2024. • Soderston, B. and Reed G, International Economics, 3rd Edition, McMillan Press, 1998. <p>Reference Books:</p> <ul style="list-style-type: none"> • Salvatore, D, International Economics. 8th Edition, Wiley India, New Delhi, 2000. • Keith Pilbeam, International Finance. 3rd edition, Palgrave, 2001. • Feenstra. R., Advanced International Trade: Theory and Evidence. Princeton University Press, 2009. • Bhagwati, J., A. Panagariya, and T. Srinivasan. Lectures on International Trade, 2nd edition, MIT Press, 1998. • Van Marrewijk, C., International Economics. Oxford University Press, 2007. • Caves Frankel & Jones, World Trade & Payments: An Introduction, Pearson Education, 2007. James Gerber, International Economics. Pearson, 6th edition, 2013. • Henry Thompson, International Economics: Global Markets and Competition, Cambridge University Press, 2nd edition, 2009. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

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

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Environmental Economics	
Course Code	MEC16	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the techniques of dynamic optimization in resource use and the role of institutions in sustainable utilization of resources. • To develop economic perspectives on modern environmental issues and to apply economic theory • Analyze selected topics on international environmental problems. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand and identify dynamic resource utilization problems in the context of renewable and non-renewable resources.</p> <p>CO2: Analyze the issue of various property rights regime and understand the institutional economic approach to resource management.</p> <p>CO3: Apply the concepts of environmental economics for the alternative resource depletion time-path under various market regimes, and also recognize the risk and uncertainty associated with resource use</p> <p>CO4: Evaluate and develop economic analysis and models for sustainable development plan</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction: Basic concepts, environment and economics, distinction between environmental economics and ecological economics. Review of microeconomics and welfare economics; Distinction between environmental economics and natural resource economics. Externalities, common property resources, public goods, resource degradation and market efficiency.	CO1
	Module II Environment and Sustainable Development: Relation between development and environmental stress; Concept of sustainable development; Indicators of sustainability; Various approaches to environmental accounting. Sustainable development: concepts and measurement. Environmental Kuznet's curve hypothesis – theory and empirical evidence.	CO2
	Module III Environmental Economics Theory: Pareto optimality and market failure in the presence of externalities; Market failure; Pigouvian solution; Buchanan's theory; Coase's theorem and its critique; Pigouvian vs Coasian solution; Subsidies for Abatement of pollution-The case in the short and long run; Choice between taxes and quotas under uncertainty; implementation of environmental policy.	CO3
	Module IV Population, Environment Policies, and Regulations: Global Issues - Poverty, population and environment, global agreements on environment, political economy of sustainable development, trade and policy	CO1,CO2

	environment under WTO regime. Mechanism for environment regulation in India; environmental laws and their implementation; Policy instruments for controlling pollution environmental standards; forestry policy ; People's Participation in management of common and forest lands, the institutions of joint managements, Social forestry- rationale and benefits.	
	Module V Global Issues: Trans-boundary environmental problems; economics of climate change; trade and environment; non-Market values and measurement methods; Risk assessment and perception; International Environmental Problems and Measuring.	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Kolstad, C.D. Environmental Economics. New Delhi: Oxford University Press, 2024. <p>Reference Books:</p> <ul style="list-style-type: none"> • Baumol, Y. and Ostes, W. R. The Theory of Environmental Policy. Cambridge: Cambridge University Press, 1998. • Bromely, D. W..Handbook of Environmental Economics. London: Blackwell, 1995 • Goodstein, E. S. Economics and the Environment. New York: John Wiley, 2002. • Hanley, N. and Roberts, C. J. Issues in Environmental Economics. Oxford: Macmillan, 2002 • Kadekodi, G. K. Environmental Economics in Practice. New Delhi: Oxford University Press, 2004 • Sankar, U. Enviromental Economics An Indian Perspective. New Delhi: Oxford University Press, 2001 • Sengupta, R. P. Ecologyand Economics: An approach to Sustainable Development. New Delhi: Oxford University Press, 2001. 	

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 ofsmall 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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

- Correlation level 1, 2 and 3 as defined below:**
- “1” – Slight (Low)
 - “2” – Moderate (Medium)
 - “3” – Substantial (High)
 - “-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Machine Learning in Economic Analysis	
Course Code	MEC17	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To understand and explain core machine learning concepts and their relevance to economic and financial analysis. • To apply supervised and unsupervised learning techniques to analyze economic trends, financial markets, and policy impacts. • To develop predictive models for forecasting key economic indicators and financial outcomes using real-world datasets. • To compare machine learning methods with traditional econometric models, evaluating their effectiveness in different analytical contexts. • To critically assess issues of interpretability, fairness, and ethics in deploying machine learning models for economic and financial decision-making. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand machine learning models to complex economic and financial datasets.</p> <p>CO2: Analyze the machine learning models to complex economic and financial datasets for economic and financial decisions.</p> <p>CO3: Apply the machine learning models to solve the economic and finance related problem</p> <p>CO4: Evaluate the strengths and limitations of ML techniques compared to traditional methods</p> <p>CO5: Develop and demonstrate ethical awareness in deploying ML models for policy or investment decisions.</p>	
Prerequisite	Students expected to have basic knowledge about programming language such as R, Python and also have understating about statistics and Mathematics.	
Course Outline	Description	CO Mapping
	<p>Module I Machine Learning and Use Cases in Economics and Finance Introduction to different learning methods, supervised/unsupervised learning, regression, classification, differences between statistical models and algorithmic learning, Dimensionality reduction and ensemble methods; Artificial Neural Networks and Deep Learning</p>	CO1
	<p>Module II Supervised Learning: Linear and Non Linear Models Linear models for regression: regularized regression, Lasso, shrinkage methods. Linear models for classification: linear discriminant analysis, logistic regression Tree-based methods: regression trees, classification trees, random forests, boosting. Kernels, Support Vector Machine</p>	CO2
	<p>Module III Natural Language Processing (NLP) for Economics and Finance Text Analysis Techniques for Financial News and</p>	

	Sentiment Analysis Topic Modeling and Identifying Market Trends from News Data NLP for Regulatory Compliance and Document Processing Case Study: Analyzing Earnings Calls and Investor Sentiment using NLP5. Deep Learning for Economics and Finance	CO3
	Module IV Deep Learning for Economics and Finance Introduction to Deep Learning Architectures, Neural networks: Convolutional, recurrent. Regularization and Stochastic Gradient Descent (SGD), Financial Time Series Forecasting with LSTMs	CO1,CO2
	Module V Big Data: Natural Language Processing Bag of words, usage of product-description data for demand prediction, related techniques.	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ol style="list-style-type: none"> 1. Pradhan, M. (2020). Machine learning: An applied approach. Wiley India. 2. Kumar, D. (2021). Introduction to artificial intelligence and machine learning. Wiley India. 3. Géron, A. (2022). Hands-on machine learning with Scikit-Learn, Keras, and TensorFlow: Concepts, tools, and techniques to build intelligent systems (3rd ed.). O'Reilly Media. <p>Reference Books:</p> <ul style="list-style-type: none"> • Cunningham, S. (2021). Causal inference: The mixtape. Yale University Press. • Ruge-Murcia, F. J. (2023). Data science for economists. Cambridge University Press. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

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

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

PROGRAM ELECTIVE COURSES

[SEMESTER – III]

Course Name	Financial Econometrics	
Course Code	MSCEFE	
Course Credit	3	
Course Type	Program Elective Course	
Semester	III	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> • To familiarize the students on time series and panel data econometrics • To covers univariate and multivariate models of stationary and nonstationary time series. • To develop a comprehensive set of tools and techniques for analyzing various forms of univariate and multivariate economics and financial analysis. • To focus on applications in the field of applied economics and financial econometric modeling. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <p>CO1: Understand advanced econometric techniques in field of economics and finance.</p> <p>CO2: Analyze multiple financial problem with empirical investigation</p> <p>CO3: Applied various econometrics models in economics and financial domain.</p> <p>CO4: Evaluate the outcome of various economic and financial decision precisely</p> <p>CO5: Develop econometric models for financial decision making</p>	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>Module I: Stationarity of Time series Stochastic processes- Properties of stochastic process. Time series as a discrete stochastic process–Stationarity- Characteristics of stochastic component of time series (mean, auto covariation and autocorrelation functions). Lag operator- Unit root tests - Deterministic and stochastic trend models- Augmented Dickey Fuller test– Phillips-Perron test- Estimation and testing.</p>	CO1
	<p>Module II: Univariate time series Models Autocorrelation Function (ACF) & Partial Autocorrelation Function (PACF), Model identification using ACF and PACF plots, Introduction to ARIMA model and its application; forecasting models and application. Seasonal ARIMA (SARIMA) models,</p>	
	<p>Module III: Stationary Multivariate Models Vector Auto Regressive (VAR) Models-Impulse Response Function (IRF)-Variance Decomposition Analysis - Structural Vector Auto Regressive (SVAR) models– Estimation and Diagnostic Checking</p>	CO2

	<p>Module IV: Non-stationary Multivariate Models Spurious regression- Cointegration- Granger representation theorem -Vector error correction models (VECMs)- Structural VAR models with cointegration - Testing for cointegration – Engle and Granger (1987)and Johansen and Juselius (1990) - Estimating the co-integrating rank- Estimating co-integrating vectors- Granger causality test</p>	
	<p>Module V: Conditional Variance Models Volatility Clustering- Leverage Effects- Modeling Volatility- Auto Regressive Conditional Heteroscedasticity (ARCH) Model- Generalized Auto Regressive. Conditional Heteroscedasticity (GARCH) Model – Extensions to GARCH-Exponential GARCH and Threshold GARCH models</p>	CO1,CO 2
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. Kerry Patterson, an Introduction to Applied Econometrics: A Time Series Approach. Palgrave Macmillan, 2000. 2. Walter Enders, Applied Econometric Time Series. New York: John Wiley & Sons, Inc., 1995. 3. Brooks Chris. (2014). Introductory Economics for Finance. Cambridge University Press; 3rd edition (2 May 2014). <p>Reference Books:</p> <ul style="list-style-type: none"> • B. H. Baltagi, Econometric Analysis of Panel Data, 4th ed., John Wiley, New York, 2008. • J.D. Hamilton, Time Series Analysis, Princeton, NJ: Princeton University Press, 1994. • W. Greene, Econometric Analysis, Macmillan, 1993 	

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, Case analysis, role play and activity	Case analysis and designing some games	3

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (COs)	Programme Outcomes (POs)								
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2							2	
CO 2	3	3	3		3	3		2	
CO 3	3	3		1	1	3	3		
CO 4	2	3	2	3	3		3		2
CO 5	3	3		3			3		

Correlation level 1, 2 and 3 as

defined below:“1” – Slight (Low)

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data

for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

Assessment Pattern & Marks Distribution

Continuous Internal Evaluation (CIE)- 40 Marks

Bloom's Category	Quiz (10)	Group Assignment & Presentations (10)	Individual Assignment (20)
Remember			
Understand	05	05	05
Apply	05	03	05
Analyse		02	05
Evaluate			05
Create			

End Semester Examination (ESE)- 60 Marks

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

Course Name	Business Analytics
Course Code	MSCEBA
Course Credit	3
Course Type	Program Elective Course
Semester	III
Objectives	The course aims to provide students with foundational knowledge and practical skills in business analytics, focusing on data-driven decision-making. It introduces key analytical tools, data visualization techniques, and decision models used in solving business problems.
Course Outcome	After completion of the course, a student will be able to: CO1: Understand the role of analytics in business decision-making. CO2: Demonstrate proficiency in data handling, preparation, and basic visualization CO3: Apply descriptive, predictive, and prescriptive analytics techniques in solving business problems. CO4: Use spreadsheet and data analysis tools (Excel, SPSS/PYTHON) for practical problem-solving. CO5: Interpret and communicate analytical results effectively to stakeholders.
Pre-Requisite	Basic understanding of statistics and Microsoft Excel.
Course Outline	Module I: Introduction to Business Analytics Definition, Evolution and Scope of Business Analytics; Data types and sources; Role of analytics in business performance. Module II: Descriptive Analytics Summary statistics, data visualization (charts, dashboards), frequency distributions, cross-tabulations, data cleaning, handling missing values. Module III: Predictive Analytics Linear regression, logistic regression, introduction to machine learning concepts; Use cases in marketing, HR, and finance. Module IV: Prescriptive Analytics Decision trees, optimization models, sensitivity analysis, simulation; Introduction to Excel Solver and What-if Analysis. Module V: Business Analytics Tools and Applications Hands-on with Excel, basics of SPSS/PYTHON, data import, analysis, report generation. Real-world applications and case studies from retail, banking, healthcare.
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"> • Pinder, J. P. (2022). <i>Introduction to Business Analytics Using Simulation</i>, Academic Press. • Camm, J. D., Cochran, J. J., Fry, M. J., & Ohlmann, J. W. (2020), <i>Business Analytics</i>, Cengage AU. • Pochiraju, B., & Seshadri, S. (2019) <i>Essentials of Business Analytics: An Introduction to the Methodology and its Applications</i>, Champaign, Springer.
Facilitating the achievement of Course outcomes	

Module No.	Course Outcomes (CO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1	CO 1	Lecture, Real-world examples	Quiz, MCQs	Understand (L2)
2	CO 2	Hands-on Excel demo	Assignment, Lab	Apply (L3)
3	CO 3	Case study, Problem solving	Presentation	Analyze (L4)
4	CO 4	Excel/SPSS lab work	Lab Test	Apply (L3)
5	CO 5	Case-based discussion	Report Writing, Viva	Evaluate (L5)

Bloom's Taxonomy: Level 1: Remembering, Level 2: Understanding, Level 3: Applying, Level 4: Analysing, Level 5: Evaluating

Mapping of the Course Outcomes (COs) to the Programme Outcomes (POs)									
Course Outcomes (COs)	Programme Outcomes (POs)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO 9
CO 1	1	1	-	-	-	-	-	-	-
CO 2	1	1	-	1	-	-	-	-	-
CO 3	-	1	-	1	-	-	-	1	-
CO 4	-	-	-	1	1	-	-	-	-
CO5	-	-	-	-	1	1	1	-	1

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

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

Assessment Pattern and Marks Distribution			
Continuous Internal Evaluation (CIE) - 40 Marks			
Bloom's Category	Presentation (10)	Assignment (10)	Lab Test (20)
Remember			
Understand	2.5		
Apply	2.5	2.5	10
Analyze	2.5		10
Evaluate	2.5	2.5	
Create		5	

End Semester Examination (ESE) - 60 Marks	
Bloom's Taxonomy Level	Test Mark
Remember	
Understand	10
Apply	10
Analyze	20
Evaluate	20
Create	

Course Name	Financial Economics
Course Code	MSCEFEN
Course Credit	3
Course Type	Program Elective Course
Semester	III
Course Objectives	<p>The objectives of the course are:</p> <ul style="list-style-type: none"> • To introduce core concepts of financial economics and their applications. • To analyze the functioning of financial markets, instruments, and institutions. • To study theories of asset pricing, portfolio choice, and risk management. • To explore corporate finance, capital structure, and investment decisions. • To develop empirical skills for analyzing financial and economic data.
Course Outcomes (COs)	<p>After undergoing the course, a student will be able to:</p> <p>CO1: Understand the role of financial markets in the economy. CO2: Apply portfolio theory and asset pricing models. CO3: Evaluate investment, capital structure, and risk management decisions. CO4: Analyze financial markets using econometric tools. CO5: Interpret policy implications for financial stability and growth</p>
Course Outline	<p>Module I: Introduction to Financial Economics Nature, scope, and importance of financial economics; Financial system: structure, functions, and role in economic development; Financial instruments: equity, debt, derivatives, mutual funds, ETFs; Financial intermediaries: banks, NBFCs, insurance, pension funds; Efficiency of financial markets: forms of market efficiency.</p> <p>Module II: Portfolio Theory and Investment Decisions Risk and return: measurement and trade-off; Mean-variance analysis and efficient frontier; Capital market line (CML) and security market line (SML); CAPM (Capital Asset Pricing Model): assumptions, derivations, limitations; Arbitrage Pricing Theory (APT); Introduction to behavioral finance and investor psychology.</p> <p>Module III: Asset Pricing and Financial Markets Theories of asset pricing: consumption CAPM, intertemporal CAPM; Valuation of bonds and stocks; Derivatives pricing: forwards, futures, options, swaps; Black-Scholes model and binomial option pricing model (basic); Role of expectations, information, and asymmetric information in financial markets.</p>

	<p>Module IV: Corporate Finance and Risk Management Corporate finance theories: Modigliani–Miller propositions, capital structure; Cost of capital and investment appraisal (NPV, IRR, Payback, EVA); Dividend policy theories: relevance and irrelevance; Risk management with derivatives: hedging and speculation; Agency problems, corporate governance, and financial regulation.</p> <p>Module V: Contemporary Issues and Empirical Applications Financial crises: causes, impacts, and lessons (2008 global crisis, COVID-19 shock); Central banks and monetary policy transmission to financial markets; Empirical issues in financial economics: volatility modeling (ARCH, GARCH basics); FinTech, digital currencies, and innovations in financial markets; Sustainable finance, ESG investing, and green bonds.</p>
Evaluation	Submission of Assignments, Presentation, and End Semester Examination
Suggested Reading	<p>Text Book</p> <ul style="list-style-type: none"> • Copeland, T., Weston, J. F., & Shastri, K. (2013). Financial Theory and Corporate Policy. Pearson. • Elton, E. J., Gruber, M. J., Brown, S. J., & Goetzmann, W. N. (2014). Modern Portfolio Theory and Investment Analysis. Wiley. • Hull, J. C. (2021). Options, Futures, and Other Derivatives. Pearson. • Tirole, J. (2010). The Theory of Corporate Finance. Princeton University Press. <p>Reference Book</p> <ul style="list-style-type: none"> • Campbell, J. Y., Lo, A. W., & MacKinlay, A. C. (1997). The Econometrics of Financial Markets. Princeton University Press. • Fabozzi, F. J., Modigliani, F., Jones, F. J., & Ferri, M. G. (2014). Foundations of Financial Markets and Institutions. 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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

- Correlation level 1, 2 and 3 as defined below:**
- “1” – Slight (Low)
 - “2” – Moderate (Medium)
 - “3” – Substantial (High)
 - “-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Monetary Economics	
Course Code	MSCEME	
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To provide understanding of the theories that relate to the existence of money, explaining why it is demanded by individuals and used in the trading process. To formalize students with monetary transmission mechanism, whereby decisions made by the monetary authorities concerning money supplies or interest rates can have real effects on the economy. To orient students about uncertainties for policy-makers and how policy makers may deal with these. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss why people hold money and why it is used in the trading process.</p> <p>CO2: Solve macroeconomic models and assess the role and efficacy of monetary policy for various types of models in both the Classical and Keynesian set-ups.</p> <p>CO3: Apply the concepts of economics for the main channels of the monetary transmission mechanism, through which monetary policy can have real effects on the economy.</p> <p>CO4: Evaluate and develop the concepts of data and parameter uncertainty and discuss the policy under uncertainty</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Definition, Functions and Theories of Money: Money and its function – the concepts and definitions of money – measurement of money – advantages of money – theories of demand for money: Classical approach, the transactions and cash balance approach, the Keynesian analysis.	CO1
	Module II : Money Supply: Financial intermediaries – nature and functions – theories of money supply – mechanistic model of money supply determination – high powered money and behavioral model of money supply determination – methods of monetary control – Interest rates in closed and open economies – theories of term structure.	CO2
	Module III: Monetary Transmission Mechanism: Meaning – interest rate channel, credit channel, bank lending channel, balance sheet channel, exchange rate channel, other asset price channels.	CO3
	Module IV: Monetary Policy: Instruments, targets, indicators, lags in monetary policy and rules versus discretion debate.	CO1,CO2

	Module V: Central Banking: Functions of a central bank – quantitative and qualitative methods of credit control – bank rate policy, open market operations, cash reserve ratio, selective methods, role and functions of Reserve Bank of India – objectives and limitations of monetary policy with special reference to India.	CO5,CO4
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"> William Warrant Carlile (2022), Monetary Economics, Legare Street Press Pierpaolo Benigno (2025), Monetary Economics and Policy: A Foundation for Modern Currency Systems, Princeton University Press Reference Books: <ul style="list-style-type: none"> Mishkin Frederic (2007), The Economics of Money Banking and Financial Markets, 8th ed Addison Wesley Longman Publishers. Bain, Keith & Howells, Peter (2009), Monetary Economics: Policy and Its Theoretical Basis, Palgrave. Langdana Farrokh (2009), Macroeconomic Policy: Demystifying Monetary and Fiscal Policy, 2nd Edition, Springer. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined below:
“1” – Slight (Low)
“2” – Moderate (Medium)
“3” – Substantial (High)
“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Agricultural Economics	
Course Code	MEC16	
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To provide a detailed treatment of issues in agricultural economics To develop economic perspectives on modern environmental issues and to apply economic theory To formalize students with policy issues that are relevant to India agricultural economics and enable them to analyse the issues, using basic macro-economic concepts. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand and identify problem and prospects of agricultural growth</p> <p>CO2: Analyze the issue of Indian agriculture</p> <p>CO3: Apply the concepts of economics for agricultural development</p> <p>CO4: Evaluate and develop economic analysis and models for sustainable agricultural development plan</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Scope and Subject matter of Agricultural Economics: Nature and Utility of Agricultural Economics, Role and Importance of Agriculture in National Economy: share in National income, Source of livelihood, Employment generation, Industrial development and trade and economic planning.	CO1
	Module II : Factors Responsible for Agricultural development and Growth Pattern: Factors responsible for agricultural development in India, Growth in use of technological factors in production such as irrigation, seed, fertilizers, capital during last five decades Agricultural Growth in India during pre and post-Independence period; contribution of area and yields, sources of agricultural, levels and growth of crop yields, value of crop output, challenges ahead.	CO2
	Module III : Resource Base and Land Utilization Pattern : National Resource base of Indian agriculture; climate, land resources, water resources, India's position in World Agriculture, Comparison of India with other countries. Land Utilization Pattern, Changes in agrarian structure in India, Patterns of Cropping in different regions, Shift in Cropping Pattern and its Implications on Food Security.	CO3
	Module IV: Sources Credit and Marketing of Agricultural Product: Credit in Indian agriculture: purposes of loans, Sources of finance and changes in these over the plan period. Factors determining demand for credit. Recent policy changes in regard to farm credit and their implications. Marketing: Characteristics of primary agricultural markets in India, Regulated markets and market intervention, Marketing	CO1,CO2

	efficiency, Marketed and Marketable surplus, Marketing Channels and Functionaries	
	Module V : The Current trend of Indian Agriculture: Farm prices, Trends in relative prices of farm products, Supply response to prices in agriculture; Behavior of marketed surplus, Price policy in India and its basis, Cost concepts. The global issues of Agriculture	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Subba Reddy, S, Raghu Ram, P., Sastry, T.V.N. and Bhavani Devi, 2009, Agricultural Economics, Oxford & IBH Publishing Co., Pvt. Ltd., New Delhi <p>Reference Books:</p> <ul style="list-style-type: none"> • Ghatak, Subrata and K. Ingersent, 1984, Agriculture and Economic Development, Prentice Hall / Harvester Wheatsheaf, USA, 384 pages. • Karcagi-Kováts, Andrea Kuti, István, 2013, Agricultural Economics I, University of Debrecen, Service Sciences Methodology Centre, TÁMOP-4.1.2.A/1-11/1-2011-0009. • Agricultural Statistics at a Glance (latest), Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi. • Agricultural Research Data Book 2017, Indian Agricultural Statistics Research Institute, Pusa, New Delhi 110 012 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined below:

- “1” – Slight (Low)
- “2” – Moderate (Medium)
- “3” – Substantial (High)
- “-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Population Economics	
Course Code	MSCEPE	
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To impart a clear understanding of the interplay between demographic processes and economic development. To introduces major developments in demographic concepts and techniques by highlighting both quantitative and the qualitative aspects and characteristics of human population as well as population processes. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss explain different aspects of population growth and its relation for economic growth and development.</p> <p>CO2: Enable students to gain a sound command over the basic tenets of demography as well as key demographic issues and illustrations in Indian context.</p> <p>CO3: Apply the concepts of economics to solve population problem.</p> <p>CO4: Develop students' abilities in acquiring a better understanding of the functioning of population - labour markets.</p> <p>CO5: Evaluate and develop skills for developing models for economic development</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Introduction to economics of population: Sources of Data Evolution of demography as a scientific discipline Nature and scope of demography and changes in it over the time Multi-disciplinary nature of demography and its links with other social science disciplines Basic demographic concepts Components of population change Sources of Data – Population Census, Sample Registration System, Vital registration System, National Sample Survey, Large sample demographic and health surveys Quality of demographic data Demographic transition</p>	CO1
	<p>Module II : Population Size, Growth and Characteristics Overview of the size and growth of world population by regions and Size and growth of India's population Composition by age and sex Age pyramids Determinants of age and sex structure and its economic and social implications Population momentum Demographic window of opportunity Population ageing Social and economic implications of population ageing Population sex ratios and its variation; Child sex ratio, Sex ratio at birth, Sex ratio of elderly Changing patterns of sex ratio in India, North-south divide, 'Missing women'</p>	CO2

	<p>Module III: Fertility and Nuptiality Concepts and measurements of cohort and period fertility Fertility levels and differentials in developed and developing countries Fertility levels and differentials in India Intermediate variables affecting fertility Intergenerational flow of wealth Nuptiality – Concept and analysis of marital status, Singulate mean age at marriage; Trends in age at marriage and its significance, Mortality: Concepts and measurement of mortality Standardization of death rates; Life tables Levels, trends and determinants of mortality in modern times Causes of death and epidemiological transition Differentials in mortality Infant and child mortality in India - levels, trends, and determinant Maternal mortality Life tables Model life tables</p>	CO3
	<p>Module IV: Migration and Population Projection : Concepts and measurement of migration Theories of migration related to internal migration Causes and consequences of internal migration Differentials in migration Trends and patterns of internal migration in India Urbanization – growth and distribution of rural-urban population in developed and developing countries Urbanization in India - its determinants and consequences , Population Projection: Importance of population projection Component method of population projection Ratio method of population projection Projection of population at the sub-national level</p>	CO1,CO2
	<p>Module V: Population and Economic Development: How is population related to economic development – stimulus, unrelated, detrimental? Optimists, pessimists and revisionists; Optimum population Theory of Demographic transition – Notestein, Libenstein, Becker, Easterlin, Caldwell; Cleland and Wilson models Population and environment Population and Health , Population Policy in India Evolution of population policy in India – the shift in policy from population control to family welfare, to women empowerment Coercion versus cooperation as elements in population policy From population control to reproductive health; Safe motherhood National Population Policy 2000</p>	CO5,CO4
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> <ul style="list-style-type: none"> • By Razin (Assaf) and Sadka (Efraim) Population Economics. . (Cambridge, Mass. and London : MIT Press , 1995 <p>Reference Books (Reading List):</p> <ul style="list-style-type: none"> • Bhat, M. (2002), Returning a Favour: Reciprocity between Female Education and Fertility, World Development, 39(10). • Bhat, M. (2002), On the Trial of Missing Indian Females, Economic and Political Weekly, 37(51) (52): 5105-518, 5244-5263. • Bhat, M. and F. Zavier (2003), Fertility Decline and Gender Bias in Northern India, Demography, 40(4):637-657. • Bende, A.A. and T. Kanitkar (2000), Principles of Population 	

		<p>Studies, Mumbai: Himalayan Publishing House.</p> <ul style="list-style-type: none"> • Birdsall, N. (1988), Economic Approaches to Population Growth. In H. Chenery, and T. Srinivasan (eds.), Handbook of Development Economics, North Holland. • Birdsall, N., A.C. Kelley, and S.W. Sinding (2001), Population Matters, Oxford: Clarendon Press. • Brokerhoff, M.P. (2000), An Urbanising World. Population Bulletin, Volume 55, Number 3. Washington: Population Reference Bureau. • Dyson, T., R. Cassen and L. Visaria (2004), Twenty First Century India: Population, Economy, Human Development and the Environment, New Delhi: Oxford University Press. • Srinivasan, T. N. (2005). India's Population: Aspects of Quality and Control. Oxford University Press. • Krishnan, P. (2010). Population and Development: A Critical Introduction. Sage Publications.
--	--	--

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined below:
“1” – Slight (Low)
“2” – Moderate (Medium)
“3” – Substantial (High)
“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

- PO1:** Understand the economic concepts and practices in different domains of social and economic issues
- PO2:** Analyze and devise solutions for multifunctional economic problems
- PO3:** Analyze relevant global factors that influence decision-making in international economic affairs
- PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems
- PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams
- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
- PO7:** Communicate effectively with various stakeholders in the context of economic issues
- PO8:** Demonstrate entrepreneurial skills in dealing with economic problems
- PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Regional Economics	
Course Code	MSCERE	
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To impart a clear understanding of the interplay between demographic processes and economic development. • To introduces major developments in demographic concepts and techniques by highlighting both quantitative and the qualitative aspects and characteristics of human population as well as population processes. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss explain different aspects of population growth and its relation for economic growth and development.</p> <p>CO2: Enable students to gain a sound command over the basic tenets of demography as well as key demographic issues and illustrations in Indian context.</p> <p>CO3: Apply the concepts of economics to solve population problem.</p> <p>CO4: Develop students' abilities in acquiring a better understanding of the functioning of population - labour markets.</p> <p>CO5: Evaluate and develop skills for developing models for economic development</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction to Regional Economics : Definition and scope - Defining a region - Delimiting functional regions - Relations of activities within a region- Forward and backward linkages - Regional specialization. Price determination in regional setting - Market area analysis - Spatial variation in costs - Regional income and employment determination - Regional income multiplier.	CO1
	Module II : Theories of Firm Location: Agglomeration Economies Objectives of location choice - Location factors - Location and the theory of production - Determinants of agglomeration - Location measures: Location quotient, coefficient of localization, localization curve.	CO2
	Module III: Regional Input-Output Analysis : Input-output analysis: Introduction - Input-output analysis in a single region - Input-output analysis in a two or more regions: The inter-regional input-output (IRIO) model - Input-output analysis in a two or more regions: The multi-regional input-output (MRIO) system.	CO3
	Module IV: Regional Growth and Development: Causes of regional growth - Interregional trade and factor movements - Interregional convergence and divergence - Measurement of spatial disparity: Principal components analysis - Central place theory; Growth pole theory; theory of cumulative causation; Dependency theory: Centre-periphery and world systems theories.	CO1,CO2

	Module V: Current Regional Issues in India: Regional Aspects of Stabilization and Growth Policy: Post-war Regional Cyclical Behaviour and Policy Measures for Stabilization, Theories to Explain Regional Differences in Growth, Fiscal Programmes, Tax and Transfer Programmes, Fiscal Responses of Power Level Governments, Regional Orientation to Policy Programmes and Central Responsibility.	CO5,CO4
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"> Philip McCann (2013) <i>Modern Urban and Regional Economics</i>, Second Edition, OxfordUniversity Press Reference Books (Reading List): <ul style="list-style-type: none"> Isserman, Andrew, M., "It's Obvious, It's Wrong, and Anyway They Said it Years Ago? Paul Krugman on Large Cities." <i>International Regional Science Review</i> . 19 # 1 & 2: 37 – 48, 1996. Hugh O. Nourse, <i>Regional Economics</i>, New York, McGraw-Hill, 1968. Steven Brakman, Harry Garretsen, Charles van Marrewijk <i>An Introduction to Geographical Economics: Trade, Location and Growth</i> 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

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

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10

Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Labor Economics	
Course Code	MEC16	
Course Credit	3	
Course Type	Program Elective	
Semester	III	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To sensitize the students on the theoretical as well as empirical issues pertaining to labour market, wage theories, employment policies, trade unions etc. To develop students' abilities in acquiring a better understanding of the functioning of labour markets. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss different aspects of labor market problem and its importance for economic growth and development</p> <p>CO2: Solve macroeconomic models in the context of labor market equilibrium</p> <p>CO3: Apply the concepts of economics to solve labour market problem.</p> <p>CO4: Evaluate and develop skills develop skills for analyzing problems in the labour market and frame strategies for the smooth functioning of the labour market.</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I The Supply of Labour: Supply of labour by an individual, by a household to an economy – A Household model of labour supply – A bargaining model of family labour supply – Changes in work participation over time: The decline in male participation rates; the increase in female participation rates – Labour force growth during recessions: The Added Worker Effect-The Discouraged Worker Effect - Classical Theory of Job Choice - Modern Theory in terms of investment in Human Capital - Migration.	CO1
	Module II : The Demand for Labour: The individual firm's demand for labour in the short run - The individual firm's demand for labour in the long run - Industry demand for labour - Elasticity of demand for labour.	CO2
	Module III: The Labour Market and Theories of Labour Market Discrimination: A. Definition of the labour market – Differences between Labour Markets and Commodity Markets - Labour Market Structure: Structured Labour markets- Unstructured Labour Markets-Internal and External Labour markets- Primary and Secondary Labour Markets. B. Types of discrimination – Taste-for- discrimination model – Market Power: The Monopsony model – Theory of Statistical discrimination – The Crowding model.	CO3
	Module IV: Employment and Wage Determination: A. Types of unemployment – The measurement of unemployment – Causes of unemployment: Job Search (The Stigler model, The McCall model) Rigid wages-Efficiency wages. B. Wage determination in a perfectly competitive market – Wage determination in a Monopsony market –	CO1,CO2

	Minimum wage – Minimum wage in a perfectly competitive market – Minimum wage in a monopsony market – The minimum wage and efficiency wage theory – Segmentation and Dual Labour Market Theory.	
	Module V: Productivity: Concept - Measurement – Importance of productivity increases - Factors influencing labour productivity - Productivity and inflation - Productivity and employment.	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Borajs, G, Labour Economics.7th edition, McGraw-Hill, 2015 • Ehrenberg R., Modern Labour Economics- Theory and Public Policy. Routledge, U.S.A., 2017. <p>Reference Books:</p> <ul style="list-style-type: none"> • Ashenfelter Orley C., David C., Handbook of Labour Economics. Vol. 3C, North Holland, U.K, 2010. • Basu Kaushik, (Ed.), International Labour Standards: History, Theories and Policy Options. Wiley-Blackwell, 2002. • Bauder Harold, Labour Movement: How Migration Regulates Labour Markets. OUP, USA, 2006. • Bloom G.F. and Northrup H.R., Economics of Labour Relations. Richard D. Irwin, Inc. Homewood, Illinois, 1977. • Cahuc Pierre, Zylberberg A., Labour Economics. Mit Press, USA, 2014. • Ehrenberg R., Modern Labour Economics- Theory and Public Policy. Routledge, U.S.A., 2017. • Misra, L, Child Labour in India. Oxford University Press, 2000. • Venkata Ratnam, C. S., Globalization and Labour-Management Relations: Dynamics of Change. Sage Publications, 2001. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as

defined below: “1” – Slight (Low)

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

PROGRAM ELECTIVE COURSES

[SEMESTER-IV]

Course Name	Game Theory and Optimization Techniques	
Course Code	MEGTOT	
Course Credit	3	
Course Type	Program Elective Course	
Semester	IV	
Course Objective	<p>The main objectives of the course are:</p> <ul style="list-style-type: none"> • To familiarize the students with basic understanding of game theory • To create the awareness about the implication of game theory in real life situation • To integrate the concept of game theory with optimization technique. • To focus on applications of game theory and optimization techniques in business and economic issues. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able:</p> <p>CO1: Understand fundamental concepts of game theory and optimization techniques</p> <p>CO2: Analyze economic issue through game theory perspective</p> <p>CO3: Applied various game theory methods in real life situation</p> <p>CO4: Evaluate the outcome of applied game theory and optimization technique</p> <p>CO5: Develop effective game theory model for business and economic issues</p>	
Pre-Requisite	None	
Course Outline	Description	CO Mapping
	<p>Module I: Stationarity of Time series Games of Complete Information: Static games; solution concept: Nash equilibrium, mixed and pure strategies, maximin principle; extensive forms, backward induction, subgame perfection, repeated games; applications.</p>	CO1
	<p>Module III: Cooperative Games: Elements of cooperative games, transferable utility games, core, Shapley Value, coalition structure, credibility and core, matching games, examples.</p>	CO2
	<p>Module IV: Bargaining: Bargaining with complete information, bargaining as an extensive game: Rubinstein model, axiomatic bargaining: Nash bargaining solution, relation between strategic and axiomatic models, outside options, inside options, bargaining with incomplete information, one-sided and two-sided uncertainty, private and correlated values, applications.</p>	CO3

	<p>Module V: Linear and Non-linear Optimization: Duality theory, constrained optimization with inequality and non-negativity constraints, Kuhn- Tucker formulation, linear programming – formulation, primal and dual, solutions using graphical and Simplex methods, applications from economics and finance</p>	CO1,CO2
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> <ul style="list-style-type: none"> • Sydsaeter, K., Hammond, P., Seierstad, A., & Strom, A. Further mathematics for economic analysis. Pearson education, 2008 • Osborne, M. J., An Introduction to Game Theory. Oxford University Press, 2003 <p>Reference Books:</p> <ul style="list-style-type: none"> • Gibbons, R., A Primer in Game Theory. Harvester-Wheatsheaf, 1992 • Fudenberg, D and J. Tirole, Game Theory. MIT Press, 1991 	

Facilitating the achievement of Course Outcomes

Mod ule No.	Course Outcomes (COs)	Teaching and Learning Activity	Assessm ent Method	Bloom's Taxono my 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, Case analysis, role play and activity	Case analysis and designing some games	3

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (COs)	Programme Outcomes (POs)								
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2							2	
CO 2	3	3	3		3	3		2	
CO 3	3	3		1	1	3	3		
CO 4	2	3	2	3	3		3		2
CO 5	3	3		3			3		

Correlation level 1, 2 and 3 as defined below:

"1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-." – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Quiz (10)	Group Assignment & Presentations (10)	Individual Assignment (20)
Remember			
Understand	05	05	05
Apply	05	03	05
Analyse		02	05
Evaluate			05
Create			

End Semester Examination (ESE)- 60 Marks

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

Course Name	International Finance	
Course Code	MSCEIF	
Course Type	Program Elective	
Course Credit	3	
Semester	IV	
Course Objectives	<p>The objectives of the course are:</p> <ul style="list-style-type: none"> • To acquaint the students with the conceptual framework of the key decision areas in multinational business finance. • To understand Functions and how Foreign Exchange Markets work, Theories of Foreign Exchange Rate Movements and International Parity Conditions. • Determine the Cost of Capital and Capital Structure for a Multinational Firm, Problems and Issues in Foreign Investment Analysis, Calculating NPV, IRR and APV for Foreign Investment Decisions. • Understanding the Management of Cash for a Multinational Firm, Techniques of Country Risk Assessment. 	
Course Outcome (CO)	<p>After completing this course, students should be able to:</p> <p>CO1: To understand Globalization and its importance for the Multinational Financial Manager</p> <p>CO2: To develop the skills to make analysis of foreign exchange market.</p> <p>CO3: To apply Currency derivatives in hedging risk associated with multinational transactions.</p> <p>CO4: To analyses approaches to Project Planning, Project Preparation and Project Management.</p> <p>CO5: To design strategies for evaluating Multi National Firms</p>	
Pre-Requisite	Corporate Finance	
Course Outline	Description	CO Mapping
	<p>Module-I–Introduction International Financial Management Overview of International Finance Overview of Forex Market Calculation of Exchange Rate</p>	CO1
	<p>Module- II – Foreign Exchange Markets Foreign Exchange Rate Determination ,Purchasing Power Parity and Interest Rate Parity Foreign, Exchange Exposures Balance of Payment and International Monetary System</p>	CO2

	<p>Module-III – Management of Foreign Exchange Risk- Translation Exposure, Comparison of Four Exposure- Measurement and Management of Transaction Exposure, Economic Exposure- Transaction Exposure Versus Economic Exposure. Currency Derivatives- Forward, Futures, Options and Swaps</p>	CO3
	<p>Module- IV- Financial Management of the Multinational Firm- Cost of Capital and Capital Structure of the Multinational Firm, Cost of Capital for MNCs v/s Domestic firms, International experiences on Cost of Capital, Multinational Capital Budgeting: Problems and issues in Foreign Investment Analysis, Techniques of Multinational Capital Budgeting- NPV, IRR, APV.</p>	CO4
	<p>Module- V- Multinational Cash management- Centralized perspective of Cash Flow Analysis, Techniques to Optimize Cash Flow- Leading and Lagging, Netting, Matching. Country Risk Analysis- Nature of Country Risk Assessment, Techniques to assess Country Risk, Raters of Country Risk.</p>	CO5
Evaluation	<p>Continuous Evaluation Internal Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project, Mid Term): 40 marks End-Term Evaluation: 60 marks</p>	
Suggested Readings	<p>Text Book:</p> <ul style="list-style-type: none"> Shapiro Alan C (2008), <i>“Multinational Financial Management”</i>, 8th Edition, Wiley 	

Facilitating the achievement of Course Learning Outcomes

Module No.	Course Intended Learning Outcomes(CILO)	Teaching and Learning Activity	Assessment Method	Bloom's Taxonomy Level
1.	CO1	Lecture and discussion through small cases	Concept questions and Quiz	2
2.	CO2	Lecture, presentation and activity.	Case-based learning, Critical Thinking exercise, Case Lets and Case studies, Quiz,	3
3.	CO3	Lecture, Case analysis Understanding the theories related to current pandemic	Real life understanding of Pandemic and economics	4
4.	CO4	Lecture, discussion, case studies, presentation	Presentation	4

5.	CO5	Lecture, discussion, casestudies, presentation	Presentation	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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO 1	3					1			
CO 2	2							3	
CO 3		3	3	3	2		1		
CO 4		3		3					
CO5			2			2			3

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

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of business operations

PO2: Analyze and devise solutions for multifunctional business problems and issues

PO3: Analyze relevant global factors that influence decision-making in international business

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic and financial problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of business

PO8: Demonstrate entrepreneurial skills in dealing with business problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	10		
Apply	5	5	
Analyze		5	5
Evaluate		5	5
Create			

End Semester Examination (ESE) - 60 Marks

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

End Semester Examination (ESE)- 60 Marks

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

Course Name	Behavioral Economics	
Course Code	MSCEBE	
Course Credit	3	
Course Type	Program Elective	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduces the concepts of behavioral economics and their importance in economic decision-making in case of risk, uncertainty and strategic interactions • To explain economic choices which deviate from predictions of neo-classical economics? • To discusses standard research methods of the subject viz. laboratory and field experiments to understand their contribution to the advancement of the subject 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain the concepts of behavioral economics and their importance in economic decision-making.</p> <p>CO2: Understand the behavioral approach for decision making</p> <p>CO3: Apply the concepts of economics to solve the problem of choice under uncertainties.</p> <p>CO4: Analyze the problem to apply different research methodology.</p> <p>CO5: Develop economic model for economic decision</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction: decision-making theories Neo-classical economics – rationality assumption, optimization Origin of Behavioural economics - Bounded Rationality, Rationality in Psychology and Economics by H. Simon Duel System theory, Prospect theory.	CO1
	Module II: Decision-making under risk and uncertainty: Heuristics and Biases programme- Representativeness, Availability, Anchoring and adjustment, mental accounting Biases: Overconfidence, Confirmation bias, Framing, Status Quo Bias, Endowment Bias, Self-Control Bias Fallacies: conjunction and disjunction fallacies, gambler’s fallacies	CO2
	Module III: Inter-temporal choices and Strategic interactions : The discounted utility model, exponential discounting Hyperbolic discounting, Strategic interactions- Fairness, trust, cooperation, reciprocity, altruism Norms and Culture	CO3
	Module IV: Applications of Behavioural Economics: Introduction to Behavioural Labour Economics, Behavioural Finance Taxation and the contribution of Behavioural Economics Choice architecture: The role of nudging Public Policies : Psychological and social perspectives on policy in the area of Poverty, Health, Climate Change	CO1,CO2
	Module V: Research methods for behavioral economics: Survey: hypothetical choices, self-reported perceptions & biases Laboratory experiments – Precepts of laboratory experiments, internal and external validity Field experiments – Randomized Control Trails	CO5,CO4

Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> Nick Wilkinson; Matthias Klaes(2012), An Introduction to Behavioral Economics, 2nd Edition, Palgrave Macmillan. <p>Reference Books (Reading List):</p> <ul style="list-style-type: none"> Colin F. Camerer, George Loewenstein, Matthew Rabin (ed.)(2004), Advances in Behavioral Economics, Princeton University Press. Dan Ariely, Harper Perennial Predictably Irrational: The Hidden Forces That Shape Our Decisions, 2010, ISBN 0061353248, ISBN13 978-0061353246. M. Altman, Handbook of Contemporary Behavioral Economics: Foundation and Developments (2007), Prentice Hall India E. Cartwright, Behavioral Economics (2011), Routledge D. Kahneman, Thinking Fast and Slow (2011), Allen Lane, Penguin Books G. Loewenstein, Exotic Preferences: Behavioral Economics and Human Motivation (2007), Oxford University Press Erik Angner, "A Course in Behavioral Economics", Palgrave Macmillan Sanjit Dhama, "The Foundations of Behavioral Economic Analysis", Oxford University Press (2016)

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: “1” – Slight (Low)

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom’s Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Python Programming	
Course Code	MSCEPP	
Course Credit	3	
Course Type	Program Elective Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To introduce students to the fundamentals of Python programming, including syntax, data types, and control structures. To develop problem-solving and logical thinking skills through Python-based applications. To enable students to perform data handling, manipulation, and visualization using Python libraries. To provide hands-on experience in writing efficient, structured, and reusable code. To prepare students for applying Python in data analysis, econometrics, and research.. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the fundamental of python programing</p> <p>CO2: Analyze the data with the help of python programing</p> <p>CO3: Apply the python programs to solve the economic and finance related problem</p> <p>CO4: Evaluate the strengths and limitations of python programming in data analysis</p> <p>CO5: Develop various analytical model with the help of python programming</p>	
Pre-Requisite	Basic knowledge of statistics	
Course Outline	Description	CO Mapping
Evaluation Suggested Readings:	<p>Module I: Overview of Python: Introduction to Python, Significance in Problem Solving, Overview of Python for Analytics Python Basics Comments, Variables and Their Scope, Standard Data Types, Python Identifiers, Reserved Words, Operators, Statements and Expressions, Basic Input and Output, Keyboard Input</p>	CO1
	<p>Module II: Conditional, Iterative and Control Flow Statements: If Statement, If-Else Statement, If-Elif-Else Statement, Nested Conditional Statement, For Loop, While Loop, Break Statement, Continue Statement, Return Statement Functions Role of Functions, Function Definition, Parameters, and Arguments, Built-In Functions, User Defined Functions, Recursive Functions</p>	CO2
	<p>Module III: Strings, List, Tuples and Dictionaries Introduction of Strings, String Operations, String Indexing and Slicing, String Methods Lists, Tuples, and Dictionaries Introduction to Lists, Mutability of Lists, Accessing List Elements, List Operations, List Methods, Nested Lists, Introduction to Tuples, Immutability of Tuples, Accessing Tuple Elements, List and Tuple Operations, Tuple Methods, Characteristics of Dictionaries, Creating Dictionaries and Understanding</p>	CO3

	their Syntax, Accessing Dictionary, Dictionary Operations and Methods	
	Module IV: File Handling and Exception Handling Opening and Closing a File, File Object Attributes, Reading to and Writing from a File, Deleting a File, What are Exceptions, Built-In Exceptions, Handling Exceptions, User- Defined Exceptions	CO4
	Module V: Data Analysis using Python Descriptive statistics with Pandas, Data visualization with Matplotlib & Seaborn, Histograms, scatter plots, box plots, heatmaps, Correlation and covariance analysis, Hypothesis testing (t-test, chi-square, ANOVA), Linear regression (OLS) with statsmodels.	CO5
	Continuous Evaluation (Quiz, Assignments, Presentation, Short Term Project): End-Term Evaluation : 60 marks	Case Study, 40 marks
	Text Books: <ul style="list-style-type: none"> • McKinney, W. (2022). Python for Data Analysis: Data Wrangling with pandas, NumPy, and IPython (3rd ed.). O'Reilly Media. • E. Balaguruswamy, "Introduction to Computing and Problem Solving with Python", McGraw Hill Education, 2018 • Downey, A. (2015). Think Python: How to Think Like a Computer Scientist (2nd ed.). O'Reilly Media. • Martin, "Python : The Complete Reference", McGraw Hill Education, 2018 Reference Books: <ul style="list-style-type: none"> • Lesmeister, C. (2015). Mastering Machine Learning with Python in Six Steps: A Practical Implementation Guide to Predictive Data Analytics Using Python. Apress. 	

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, Case analysis, role play and activity	Case analysis and designing some games	3

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (COs)	Programme Outcomes (POs)								
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2							2	
CO 2	3	3	3		3	3		2	
CO 3	3	3		1	1	3	3		
CO 4	2	3	2	3	3		3		2
CO 5	3	3		3			3		

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

- PO6:** Examine ethical and societal concerns relating to multiple stakeholders
PO7: Communicate effectively with various stakeholders in the context of economic issues
PO8: Demonstrate entrepreneurial skills in dealing with economic problems
PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Quiz (10)	Group Assignment & Presentations (10)	Individual Assignment (20)
Remember			
Understand	05	05	05
Apply	05	03	05
Analyse		02	05
Evaluate			05
Create			

End Semester Examination (ESE)- 60 Marks

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

Course Name	Energy Economics	
Course Code	MSCEEE	
Course Credit	3	
Course Type	Program Elective Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to the demand and supply forces in The energy market • To sensitize students about the environmental implications of energy resources • To highlight the linkage between energy and development • To equip students with the ability to critically analyze the global energy scenario and energy regulatory framework 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the concept of energy as a economic resource CO2: Analyze the linkage between energy and development CO3: Apply the micro economic concepts of demand and supply to the energy market. CO4: Evaluate environmental effects of energy production. CO5: Develop an idea about the global trade in energy services</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Energy as a Resource: Classification Measurement and Accounting Understanding energy and environmental issues through the lens of Economics, Overview of World energy scenario, Primary energy demand and supply, Fossil fuel reserves across the World - An overview of India's energy scenario and its comparison with other countries, Renewable energy and nuclear energy potential across the world, Formulation of energy Sankey diagrams, trends in energy use patterns – India and the World Energy balance in developed and developing countries</p>	CO1
	<p>Module II Linkage between Energy and Development Economics and Politics of Energy, Energy as a Basic Need. Energy Prices and Value Chain Management, Preference and Utility of energy services, Energy and Climate Challenge-The role of markets, Energy and socioeconomic development, Energy and Quality of life, Energy justice and just transition</p>	CO2
	<p>Module III Energy Demand Analyzing past, present and future energy demand, Demand side management policies, Energy inequality and income inequality, Energy poverty and income poverty, Importance of energy security, Public and private provisioning of energy, Role of state and central governments, Accounting for externalities in energy services, Different sources of funds for energy financing</p>	CO3

	<p>Module V Energy Supply Renewable and Non-Renewable Energy Supply, Financial analysis of Renewable vs Non-Renewable Energy Projects, Government Incentives and Disincentives for energy Projects, Case studies from developed and developing countries, Energy markets, energy pricing and profitability, Energy storage technologies and applications for the grid</p>	CO3
	<p>Module V Environmental Effects of Energy Production and Utilisation Energy, Environment and Climate Change, Energy Transition: Opportunities and Challenges, Clean Energy Policy Instruments, Energy Efficiency and Emission Mitigation, Carbon Capture and Storage, Carbon Pricing and Green Finance</p>	CO5,CO4
	<p>Module VI Global Energy Trade and Geopolitics Role of OPEC and other energy trade organizations, Energy resource endowment and national power, Sanctions, trade agreements, and energy diplomacy, Security implications of global energy trade routes, Energy as a tool of foreign policy, Global trends in energy trade and investment, Influence of geopolitical tensions on energy prices, Energy dependency and interdependency among nations</p>	CO5
	<p>Module VII Energy Regulatory Frameworks Emissions trading schemes and carbon pricing, Subsidies, tariffs, and fiscal policies for sustainable energy, the role of regulation in energy storage and grid integration, Legal considerations for cross-border energy transactions, Environmental legislation affecting fossil fuel extraction and use, Energy market reforms for decentralized and digital grids, Regulatory compliance for energy efficiency improvements.</p>	CO2
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> <ul style="list-style-type: none"> • Bhattacharyya, S. C. (2019). <i>Energy economics: concepts, issues, markets and governance</i>. Springer Nature. • Zweifel, P., Praktiknjo, A., & Erdmann, G. (2017). <i>Energy economics: theory and applications</i>. Springer. <p>Reference Books:</p> <ul style="list-style-type: none"> • Griffin, J. M., & Steele, H. B. (2013). <i>Energy economics and policy</i>. Elsevier. • Hafner, M., & Luciani, G. (2022). <i>The Palgrave handbook of international energy economics</i> (p. 770). Springer Nature. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:**At the end of the programme, the students will be able to:****PO1:** Understand energy markets and the role of energy in the economy.**PO2:** Identify and apply a knowledge of methods to assess energy projects, technologies, and policies.**PO3:** Examine the economics of energy production and consumption.**PO4:** Evaluate and communicate research in energy economics.**PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams**PO6:** Examine ethical and societal concerns relating to energy justice and energy security**PO7:** Communicate effectively with various stakeholders regarding energy and development**PO8:** Demonstrate understanding of global energy geopolitics**PO9:** Recognize the importance of energy efficiency improvements and just energy transition**Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE) - 40 Marks**

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Gender Economics	
Course Code	MSCEGE	
Course Credit	3	
Course Type	Program Elective	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To impart a clear understanding of the interplay between gender dynamics and economic development. • To introduces major developmental policy relating to gender equity 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss the role of gender for economic growth and development.</p> <p>CO2: Enable students to gain a sound command over the basic tenets of gender dynamics in Indian and global context.</p> <p>CO3: Apply the concepts of economics to solve population problem. Understand how gender shapes human development and societal outcomes.</p> <p>CO4 : Analyze global efforts and initiatives for gender equality and empowerment</p> <p>CO5: Develop students' abilities in examining key frameworks: WID, WAD, and GAD in gender development.</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Concept of Gender and human development: Gender disaggregated data/gender statistics. From Women in Development to Gender and Development. Gender Inequality. Capability approaches. Perspectives on men and masculinities in economic development. Relationship between economic growth and gender equality, empowerment (emphasis on economic empowerment). Indicators of economic inequalities. Third gender and development: substance and indicators. Demographic changes and gender status. Gender interpretation of causes of demographic shift in birth rates. Child sex preferences and secondary sex ratio. Gender differences in mortality: concept and factors - biological, environment, discrimination and behavioural (lifestyle) factors. Socio-economic differences inmortality.</p>	CO1
	<p>Module II: Subject and methods of gender economics. Feminist economic critique of mainstream economics and alternatives. Feminist perspectives on economic methods and arguments. Neoliberal economic policies, international trade and investment. Trade, feminization and international gender wage inequality. Gender effects on macroeconomic theory and instability. Globalization of the world economy and gender status: concepts such as feminization of poverty and multidimensional poverty. Women's contribution to GDP.</p>	CO2

	<p>Module III: Conceptualizing Women’s Work: Productive/Reproductive Work and Formal/Informal work. Estimating Women’s Work, Indian and International Debates. Issues in Participation; Occupations; Women and Globalization; Globalization and Economic Change; International Division of Labour. Gender inequality in the labour market: entry into and exit from the labour market, careers, wages, skills training. Inequality and discrimination. Factors in wage disparities. Gender dimension of employment of youth and older persons</p>	CO3
	<p>Module IV: Household economics: theoretical concepts and gender critique. Gender critique of the neo-Marxist approach. Gender critique of neo-classic household theory. The gender contract, negotiation models within families. Distribution of time: work in the labour market, work in the household, leisure time. Distribution of incomes (expenditures) in the household: inter-generational and gender aspect. Distribution of resources and decision-making mechanisms in households. Investments in human capital at household level and the sex factor. Accumulation of human capital over a life cycle. Household factors (reproductive, productive, structural, income-based, power-related) and employment of household members. Gender based marital and age-dependent migration.</p>	CO1,CO2
	<p>Module V: Gender policy: national, regional and global. Practical policy solutions to the problem of gender inequality. Policies and strategies for reducing gender inequalities. Gender mainstreaming (including organizational mainstreaming), participatory approaches, gender budgeting, micro-credit. Welfare and Social Security Measures. Women in Planning and Social Policy</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Joyce , J (2021) <i>The Economics of Gender Regional Economics</i>, Third Edition, Wiley-Blackwell <p>Reference Books (Reading List):</p> <ul style="list-style-type: none"> • Chant, Sylvia. 2006. “Rethinking the ‘Feminisation of Poverty’ in Relation to Aggregate Gender Indices”. <i>Journal of Human Development</i>. Vol. 7. No.2. pp. 201– 220 • Ganguly-Scrase, Ruchira. 2003. “Paradoxes of Globalisation, Liberalisation, and Gender Equality: The Worldviews of the Lower Middle Class in West Bengal, India”. <i>Gender and Society</i>. Vol. 17. No. 4. pp. 544-566 • Ghosh, Jayati. 2002. “Globalisation, Export-Oriented Employment for Women and Social Policy: A Case Study of India”. <i>Social Scientist</i>.Vol. 30. No. 11/12. pp. 17-60. • Jhabvala, Renana and Shalini Sinha. 2002. “Liberalisation and the Woman Worker”. <i>Economic and Political Weekly</i>. Vol. 37. No. 21. pp. 2037-2044 • Pande, Rekha. 2001. “The Social Costs of Globalisation: Restructuring Developing World Economies”. <i>Journal of Asian Women’s Studies</i>. Vol. 10, December, Japan: Kitakyushu Forum. 	

	pp.1-14. <ul style="list-style-type: none"> • Elango, K., Perumal, A. and Raj, M. (2008). Emerging Issues in Gender and Women Development. Abhijeet Publication, New Delhi. • World Economic Forum (2023). Global Gender Gap Report.
--	---

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:**At the end of the programme, the students will be able to:****PO1:** Understand the economic concepts and practices in different domains of social and economic issues**PO2:** Analyze and devise solutions for multifunctional economic problems**PO3:** Analyze relevant global factors that influence decision-making in international economic affairs**PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems**PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams**PO6:** Examine ethical and societal concerns relating to multiple stakeholders**PO7:** Communicate effectively with various stakeholders in the context of economic issues**PO8:** Demonstrate entrepreneurial skills in dealing with economic problems**PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment**Assessment Pattern & Marks Distribution
Continuous Internal Evaluation (CIE) - 40 Marks**

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Health Economics	
Course Code	MSCEHE	
Course Credit	3	
Course Type	Program Elective	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To impart a clear understanding of the importance of Health and its role for economic growth and development To train the students to apply concepts from economics in the context of health care and its financing. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss the contemporary issues confronting health care facilities and economic interpretation of it.</p> <p>CO2: Understand the problems of health care facilities and the role of the role of government.</p> <p>CO3: Apply the concepts of economics to solve the health care issues.</p> <p>CO4: Analyze the approaches of government in terms of policy intervention.</p> <p>CO5: Develop suitable health policies for sustainable economic development</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction to Economics of Health: The distinction between health and health care - Determinants of health - Health Accounts: sources of health expenditure; providers of health care and health expenditure by functions - Health care and its linkages with poverty, nutrition; morbidity and mortality- Demand and Supply of healthcare - Opportunity costs and problems of rationing- health care- Costs and efficiency- Types of equity. -Markets vs State.	CO1
	Module II: Financing Health Care and Delivery of Health Care: Economics of financing health care - Financing options- The rationale of government funding and regulation of health care- user charges and community financing schemes - issues of affordability and accessibility- Delivery of health care-Models of decentralization - private/public mix. Private and Public Health Insurance - Formal and informal sectors.	CO2
	Module III: Evaluation of Health Care: Conceptual Foundations for health utility measurement-Preference based measures of health Contingent valuation in health- Discrete choice experiments in health economics- stages and Validity of discrete choice variables. Economic evaluation in health care-Cost-effectiveness analysis- Decision rules in economic evaluation.	CO3
	Module IV: Approaches to Health care: Economic dimensions of the health system in India-Health Indicators and outcomes - Nutritional concerns , The case of India and other economies	CO1,CO2

	Module V: Role of government in health care -Equity issues in health and health care systems Social and gender inequalities - Social security measures-Health care in India-Health and population policies- Health sector reforms in India.	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> Lorna Guinness, Virginia Wiseman (2011) Introduction to Health Economics. McGraw-Hill Education (UK) <p>Reference Books (Reading List):</p> <ul style="list-style-type: none"> Jones, A.M. (ed.), The Elgar Companion to Health Economics, Edward Elgar, USA, 2006 (Modules 3 and 4) Glied S. and P.C. Smith (ed.) The Oxford Handbook of Health Economics, New York, 2011 (Modules 3 and 4) Henderson, J.W., Health Economics and Policy, South -Western, Thomson Learning, 2001. Chapters: 2 and 3 (Module 2) Mcpake, B., L. Kumanayake and C. Normand, Health Economics: An International Perspective, Routledge, 2002 (Module1) Musgrove, P., Health Economics in Development, 2004 The World bank. Chapters: 2,3,4,9 and 10 (Modules 1 and 2) Panchamukhi, P. R., Economics of Health: An Introductory Review, ICSSR, 2002 (Modules 1 and 2) World Health Organization A System of Health Accounts, 2011 8. National Health Accounts-India: 2004-05, http://www.whoindia.org/LinkFiles/Health_Finance_National_Health_Accounts_2004-05.pdf 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:**At the end of the programme, the students will be able to:****PO1:** Understand the economic concepts and practices in different domains of social and economic issues**PO2:** Analyze and devise solutions for multifunctional economic problems**PO3:** Analyze relevant global factors that influence decision-making in international economic affairs**PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems**PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams**PO6:** Examine ethical and societal concerns relating to multiple stakeholders**PO7:** Communicate effectively with various stakeholders in the context of economic issues**PO8:** Demonstrate entrepreneurial skills in dealing with economic problems**PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Urban Economics	
Course Code	MSCEUE	
Course Credit	3	
Course Type	Program Elective	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> To impart a clear understanding of the interplay between gender dynamics and economic development. To introduces major developmental policy relating to gender equity 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Explain and discuss the contemporary issues confronting urban areas and exploring possible economic solutions.</p> <p>CO2: Understand the problems of housing, transportation, education, employment, poverty, and crime.</p> <p>CO3: Apply the concepts of economics to solve the urban economic problem.</p> <p>CO4 : Analyze the problem of urbanization and economic development</p> <p>CO5: Develop suitable urban economic model for possible solution</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	Module I Introduction to Urban Economics: Existence and importance of cities, 5 axioms of urban economics, Case Studies and Reports related to important Indian cities. The Development of Cities: Clusters & Agglomeration; City Size and Urban Growth Development of a factory town, firm clustering, labor pooling, localization and urbanization economies, differences in city sizes, Urban employment growth and the multiplier, the effects of taxes and subsidies on location choices	CO1
	Module II : Land Rent & Markets and Land use pattern : Land rent and urban structure, Residential Land Market, Urban Land Markets with Factor Substitution The Spatial Distribution of Employment and Population, The Monocentric City- Rise and Demise, Urban Sprawl, Neighborhood Choice, Zoning and Growth controls	CO2
	Module III: Urban Transportation: Congestion Externalities, Congestion Tax and Alternatives, Autos and Air Pollution, Automobiles and Poverty. Commuting and transit Ridership- the Cost of Travel and Model Choice, Efficient Volume of Ridership, Designing a Transit System	CO3
	Module IV: Urban Infrastructure: Spending and Educational Achievement- Education Production Function, Spending Inequalities and Public Policy Crime Facts, the Rational Criminals, the Equilibrium Quantity of Crime, Legal Opportunities and Education Water supply and sanitation, Access to basic urban amenities, Housing: Importance of Housing- Durability, Detritions and Maintenance, the Filtering Model of Housing Market Housing Policy- Public Housing, Housing Vouchers, Rent Control and Rent	CO1,CO2

	Regulation	
	Module V: Local Government: The Role of Local Government, Local Government Revenue and Expenditure, The Tiebout Model and Property tax Financial Instruments (municipal Bonds)	CO5,CO4
Evaluation	Continuous Evaluation (Quiz, Assignments, Case Study, Presentation, Short Term Project): 40 marks End-Term Evaluation : 60 marks	
Suggested Readings:	<p>Text books:</p> <ul style="list-style-type: none"> • Arthur O’Sullivan, Urban Economics (7th edition), McGraw Hill Irwin, 2008. • Jan K Brueckner, Lectures on Urban Economics, the MIT Press, 2011 <p>Reference Books (Reading List):</p> <ul style="list-style-type: none"> • Edward L. Glaeser, Cities, Agglomeration, and Spatial Equilibrium: the Lindahl Lectures, New York, Oxford University Press, 2008 (ISBN-13: 9780199290444) (Focus on Mathematical Modeling) • Klein, Daniel B., Moore, Adrian T., and Reja, Binyam. Curb Rights: A Foundation for Free Enterprise in Urban Transit. (New York: Brookings Institution, 1997 (ISBN: 978-0815749394) • William Cronon. Nature's Metropolis: Chicago and the Great West. W.W. Norton, 1991. James Howard Kunstler. The Geography of Nowhere. Free Press, 1994 • William Julius Wilson. The Truly Disadvantaged: The Inner City, the Underclass and Public Policy. University of Chicago Press, 1987. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues**PO2:** Analyze and devise solutions for multifunctional economic problems**PO3:** Analyze relevant global factors that influence decision-making in international economic affairs**PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems**PO5:** Develop acumen to perform various roles effectively as a member and a leader in diverse teams**PO6:** Examine ethical and societal concerns relating to multiple stakeholders**PO7:** Communicate effectively with various stakeholders in the context of economic issues**PO8:** Demonstrate entrepreneurial skills in dealing with economic problems**PO9:** Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

ONLY FOR OPTION 2 and 3

Option-2 Two Years MSc. Economics - Course Work with Research

Option-3 Two Years MSc. Economics with Research Only

Course Name	Research Ethics	
Course Code	MEC16R2	
Course Credit	2	
Course Type	Discipline Specific Course	
Semester	IV (For Option-2) and III (For Option-3)	
Course Objective	<p>The objectives of the course are:</p> <ul style="list-style-type: none"> • To introduce the foundational concepts of philosophy and ethics and their relevance to research and scholarship. • To impart knowledge of ethical standards in scientific conduct, intellectual honesty, and research integrity. • To familiarize students with the principles of publication ethics, authorship, contributor ship, and conflict of interest. • To build awareness of open access publishing, predatory journals, and tools for verifying publication standards. • To develop the ability to detect, prevent, and address publication misconduct, including plagiarism and redundant publication. • To equip students with knowledge of databases and research metrics for evaluating the impact and quality of academic work. 	
Course Outcome (CO)	<p>After undergoing the course, a student will be able to:</p> <p>CO1: Understand the concepts of philosophy, branches of philosophy, and moral philosophy to establish a strong ethical foundation for research.</p> <p>CO2: Apply best practices in publication ethics, including authorship guidelines, conflict of interest management, and adherence to COPE/WAME standards.</p> <p>CO5: Analyse and address publication misconduct using appropriate software tools and handle complaints and appeals effectively</p> <p>CO4: Evaluate open access publishing initiatives, copyright policies, and tools like SHERPA/RoMEO, JANE, and journal finder platforms for selecting appropriate journals.</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Philosophy and Ethics Introduction to philosophy: definition, nature and scope, concept, branches, Ethics: definition, moral philosophy, nature and moral judgments, and reactions</p>	CO1

	<p>Module II Scientific Conduct Ethics with respect to science and research, Intellectual honesty and research integrity, Scientific misconducts: Falsification, Fabrication, and plagiarism (FFP), Redundant publications: duplicate and overlapping publications, salami slicing, Selective reporting and misrepresentation of data.</p>	CO1
	<p>Module III: Publication Ethics Publication ethics: definition, introduction and importance, Best practices/standards setting initiatives and guidelines: COPE, WAME, etc., Conflicts of interest, Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa types, Violation of publication ethics, authorship and contributor ship, Identification of publication misconduct, complaints and appeals, Predatory publishers and journals.</p>	CO2
	<p>Module IV: Publication Misconduct Subject-specific ethical issues, FFP, authorship, Conflicts of interest, Complaints and appeals: examples and fraud from India and abroad, Software tools: Use of plagiarism software like Turnitin, Urkund, and other open source software tools</p>	CO1,CO2
	<p>Module V: Databases and Research Metrics Databases: Indexing databases, Citation databases: Web of Science, Scopus, etc., Research Metrics: Impact factor journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score, Metrics: h-index, g-index, i10index, altmetrics.</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Bird, A. (2006). <i>Philosophy of Science</i>. Routledge • MacIntyre, Alasdair (1967) <i>A Short History of Ethics</i>. London • P. Chaddah, (2018) <i>Ethics in Competitive Research: Do not get scooped; do not get plagiarized</i>, ISBN: 978-9387480865 • National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. (2009). <i>On being a scientist: A Guide to Responsible Conduct in Research: Third edition</i>. National Academic Press. <p>Reference Books:</p> <ul style="list-style-type: none"> • Resnik, D. B. (2011). What is ethics in research & why is it important? <i>National Institute of Environmental Health Sciences</i>, 1-10. • Beall, J. (2012). Predatory publishers are corrupting open access. <i>Nature</i>, 489(7415), 179-179. • Indian National Science Academy (INSA). <i>Ethics in Science Education, research and governance</i> (2019), ISBN: 978-81-239482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

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

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts and practices in different domains of social and economic issues

PO2: Analyze and devise solutions for multifunctional economic problems

PO3: Analyze relevant global factors that influence decision-making in international economic affairs

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic problems

PO5: Develop acumen to perform various roles effectively as a member and a leader in diverse teams

PO6: Examine ethical and societal concerns relating to multiple stakeholders

PO7: Communicate effectively with various stakeholders in the context of economic issues

PO8: Demonstrate entrepreneurial skills in dealing with economic problems

PO9: Recognize and appreciate eco-sensitivity for a sustainable environment

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Master Thesis
Course Code	MECT
Course Credit	12
Course Type	Discipline Specific Course
Semester	IV (For Option-2)
Course Objective	<p>The objectives of the course are:</p> <p>The objective of this course is to train the students for research and report writing.</p>
Course Outcome (CO)	<p>After undergoing the course, a student will be able to:</p> <p>CO1: Understand the relevance of socio-economic issues CO2: Apply the concepts of economics and econometric - research tool for empirical research CO3: Analyze and interpret results of data for drawing conclusion for solving real life problems CO4: Evaluate and develop constructive reports for policy recommendation CO5 : Create bonfide research output to add to the existing literature</p>

Master Thesis		
Outcome	Details	Evaluation (100 Marks)
Research problem Identification	<ol style="list-style-type: none"> 1. Title 2. Literature Review and Research Gap 3. Research Objective 	Presentation: 10 marks Viva-voce: 10 Marks Total: 20 marks
Research Design and Methods	<ol style="list-style-type: none"> 4. Research Type 5. Data Collection Methods 6. Sampling Design 7. Scaling 8. Data analysis tools 	Presentation: 15 marks Viva-voce: 15 Marks Total: 30 marks
Dissertation	<ol style="list-style-type: none"> 1. Introduction 2. Background of the study & Literature Review 3. Research Methods 4. Data Analysis and Discussion <ul style="list-style-type: none"> ➤ Implications and Future Directions ➤ Limitations 5. Conclusions 6. References 7. Appendices <ul style="list-style-type: none"> ➤ Questionnaire/Data Collection form ➤ Detailed Calculations ➤ Other Support materials 	Presentation: 25 marks Viva-voce: 25 Marks Total: 50 marks

Course Name	Advanced Research Methodology	
Course Code	FEC015R2	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	III	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To introduce the students to step-by-step method for defining a research problem • To sensitize students about the implications of systematic literature review • To be able to understand the relevance of a research problem • To equip students with the ability to critically analyze an economic problem and find solution to the problem 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Define a Research Problem independently CO2: Analyze the problem based on critical reading and theoretical background CO3: Can handle any dataset to find the nature of its distribution CO4: Evaluate Hypotheses and Draw Inferences CO5: Develop the best fit economic model based on the ‘goodness of fit’</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Defining a Research Problem Understanding the dynamics of research philosophy and design, Systematic Literature Review and Meta Data Analysis, Data collection and Data Visualization, Research Design and Types, Motivation and Rationale for Choosing a Research Problem, Novelty of the Research Problem</p>	CO1
	<p>Module II Literature Review Different Types of Literature Review, Traditional Literature Review Vs Systematic Literature Review, Advantages and Disadvantages of Traditional Literature Reviews, Systematic Literature Reviews, Identifying A Research Topic, The Research Cycle, Factors to Consider When Identifying a Research Topic, Research Questions, Developing a Research Question</p>	CO2
	<p>Module III Critically Reading Published Research Understanding the Format of the Published Work, Evaluating the Argument of the Publication, Questions to Guide Critical Thinking, Evaluating Published Research</p>	CO1,CO2
	<p>Module IV Qualitative and Quantitative Data Analysis Introduction to different Qualitative Research Methods, Importance of Qualitative Research, Crafting a Qualitative Study, Qualitative Research: Data Collection Approaches, Ethnography, Case Studies, Action Research, <i>Quantitative</i></p>	CO3

	Research- Experimental Study, Survey Methodology, Survey Research	
	Module V Sampling Design Process Sampling Process, Sample Validation, Non-Response Issues in Sampling, Sampling Techniques: Probability Sampling, Types of Probability Sampling, Non-Probability Sampling, Snowball Sampling, Sample Size and Non-Response Aspects in Sampling	CO1, CO4
	Module VI Data Collection Nature and Scope of Secondary Data, Combining Various Types of Data, Primary Data Collection with Emphasis on Experiments, Comparative Scaling Techniques, Non-Comparative Scaling Techniques, Case Studies	CO1, CO2
	Model VII Regression Analysis Stating the Research Hypotheses, Testing the Hypotheses and Interpreting the Results, “Goodness of Fit” of an Economic Model, Evaluate the Test Results, Communicate the Results of a Research Project, Give Oral Presentation	CO1, CO5
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. (2004). <i>Research methodology: Methods and techniques</i>. New Age International. • Perry-Sizemore, E., & Greenlaw, S. A. (2012). 12 Writing for learning in economics. <i>International handbook on teaching and learning economics</i>, 137. Reference Books: <ul style="list-style-type: none"> • Devi, P. S. (2017). <i>Research methodology: A handbook for beginners</i>. Notion Press. • Cronin, B. (Ed.). (2016). <i>Handbook of research methods and applications in heterodox economics</i>. Edward Elgar 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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as defined

below: "1" – Slight (Low)

"2" – Moderate (Medium)

"3" – Substantial (High)

"-" – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Understand the economic concepts of data handling and research methodology**PO2:** Analyze and devise solutions for dealing with different types of data**PO3:** Analyze critical reading, evaluation and application of research problem**PO4:** Apply research-based knowledge and techniques to analyze and interpret data for obtaining solutions for economic and financial problems**PO5:** Develop acumen to perform various roles effectively as a researcher**PO6:** Examine ethical and societal concerns relating to research**PO7:** Able to effectively find solution to complex economic problem**PO8:** Demonstrate ability to critically think and provide recommendation for a problem**PO9:** Recognize and appreciate the systematic way to get around a research problem

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Master Thesis –I
Course Code	MECT-I
Course Credit	12
Course Type	Discipline Specific Course
Semester	III (For Option-3)
Course Objective	<p>The objectives of the course are:</p> <p>The objective of this course is to train the students for research and report writing.</p>
Course Outcome (CO)	<p>After undergoing the course, a student will be able to:</p> <p>CO1: Understand the relevance of socio-economic issues CO2: Apply the concepts of economics and econometric - research tool for empirical research CO3: Analyze and interpret results of data for drawing conclusion for solving real life problems CO4: Evaluate and develop constructive reports for policy recommendation CO5 : Create bonfide research output to add to the existing literature</p>

Master Thesis -I		
Outcome	Details	Evaluation (100 Marks)
Research problem Identification	<ol style="list-style-type: none"> 1. Title 2. Literature Review and Research Gap 3. Research Objective 	Presentation: 20 marks Viva-voce: 20 Marks Total: 40 marks
Research Proposal	<ol style="list-style-type: none"> 4. Research Type 5. Data Collection Methods 6. Sampling Design 7. Scaling 8. Data analysis tools 	Presentation: 15 marks Viva-voce: 15 Marks Total: 30 Marks
Pilot Study	After completion	30 Marks

Course Name	Techniques of Research Writing	
Course Code	FECO20R5	
Course Credit	2	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To enable students to systematically write a research paper • To introduce students to data analysis and hypothesis testing • To enable students, help and theorize a research problem • To equip students with the ability to critically analyze a research question and evaluate a research outcome. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the Reasoning and Motivation Behind a Research Problem</p> <p>CO2: Enable to Improve the Quality of a Research paper</p> <p>CO3: Enables to form Research Hypotheses based on supporting documents</p> <p>CO4: Provides guidance to choose a research topic</p> <p>CO5: Develops skills to write a research paper</p>	
Pre-Requisite	Students must come prepared to the class by going through the assigned cases and relevant chapter/s of the prescribed text book.	
Course Outline	Description	CO Mapping
	<p>Module I Research Writing in Economics Writing as a Tool for Economic Research, Structure of an Argument, Examining an Argument, Three Types of Reasoning: Deductive, Inductive and Warrant Based, Examples of Persuasive Argument, Research Writing Steps, Features of Good Economic Writing, Giving Credit for Intellectual Property, Supporting Arguments with Evidence, Writing Style and Mechanics, Taking Research Notes, Writing Abstracts and Critical Reviews, Achieving Clarity, Managing Time</p>	CO1
	<p>Module II Theorizing and Conceptualizing Research: Applying Theory to a Research Topic, Narrative Reasoning, Mathematical Reasoning, modifying an Existing Model, Criteria</p>	CO2

		for a Good Research Hypothesis, Economic Models, Hypothesis Testing, Improving the Model Fit, Applying Statistical Tools	
		Module III Locating and Collecting Economic Data Data Creation, Structure of Economic Data, Organizations that Collect and Publish Data, Major Primary Data Collections, Major Secondary Data Collections, Search Strategy for Compiling Data, Data Manipulation, Doing a periodical search	CO3
		Module IV Finding and researching your topic Finding a topic for a term paper, Finding and using sources, Taking and organizing notes, Outlining the paper, Writing Literature Review, Theoretical Analysis, Empirical Analysis, Presenting Hypothesis and Results,	CO1,CO2
		Module V Formatting and Documentation Placing citations in paper, Listing References, Basic Guidelines, Sample Entries	CO5,CO4
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"> Krause, S. D. (2000). <i>The process of research writing</i>. McGraw-Hill. Reference Books: <ul style="list-style-type: none"> MacArthur, C. A., Graham, S., & Fitzgerald, J. (Eds.). (2008). <i>Handbook of writing research</i>. Guilford Press. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as

defined below:“1” – Slight (Low)

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Improve quality of research writing

PO2: Enables to systematically find a research topic

PO3: Helps to analyze a given research problem

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining economic solutions

PO5: Develop acumen to perform various roles effectively as an academician

PO6: Examine ethical and societal concerns relating to research writing

PO7: Helps to organize the literature review

PO8: Helps in formatting and documentation of research paper

PO9: Helps in Theorizing and Conceptualizing the research framework

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Research Tools	
Course Code	MECR4	
Course Credit	3	
Course Type	Discipline Specific Course	
Semester	IV	
Course Objective	<p>The objectives of this course are:</p> <ul style="list-style-type: none"> • To equip students with the fundamental knowledge of research design, quantitative and qualitative methods in economics. • To provide training in the use of statistical and econometric tools for empirical research. • To develop hands-on skills in widely used software such as Excel, Stata, EViews, R, and Python for data analysis. • To familiarize students with qualitative and mixed-methods approaches in economics research. • To enhance students' academic writing, referencing, and research ethics for thesis and publication. 	
Course Outcome (CO)	<p>Upon successful completion of the course a student will be able to:</p> <p>CO1: Understand the fundamentals of research methodology, research design, and the application of different research approaches in economics.</p> <p>CO2: Apply descriptive and inferential statistical tools, including regression and time series analysis, for economic data analysis.</p> <p>CO3: Use econometric and statistical software (Excel, Stata, EViews, R, Python) effectively for quantitative research.</p> <p>CO4: Employ qualitative and mixed-methods tools (case study, interviews, content analysis) to complement quantitative approaches in research.</p> <p>CO5: Demonstrate skills in research writing, academic referencing, plagiarism avoidance, and ethical practices in economics research.</p>	
Pre-Requisite	Basic understanding about research methodology	
Course Outline	Description	CO Mapping
	<p>Module I Fundamentals of Research in Economics Nature and scope of research in economics, Types of research: theoretical, empirical, applied, and policy research, Research design: problem formulation, objectives, hypothesis, variables, Measurement scales: nominal, ordinal, interval, ratio, Sampling methods and sample size determination</p>	CO1
	<p>Module II Quantitative Research Tools Descriptive statistics: measures of central tendency, dispersion, skewness, kurtosis; Inferential statistics: hypothesis testing, t-test, chi-square, ANOVA; Correlation and regression analysis; Index numbers and time series basics (trend, seasonal, cyclical, irregular components); Basic econometric models for research</p>	CO2

	<p>Module III Locating and Collecting Economic Data Excel: data management, descriptive statistics, regression, graphs; SPSS/Stata/EViews: data analysis, hypothesis testing, regression, time series; R / Python: introduction to coding for data analysis, visualization, econometrics packages; Application of software to real-world economic data</p>	CO3
	<p>Module IV Qualitative and Mixed Research Tools Role of qualitative methods in economics research; Case study method, interviews, and focus groups; Content analysis and thematic analysis; Mixed-methods research: integrating quantitative and qualitative tools; Use of NVivo / ATLAS.ti</p>	CO1,CO2
	<p>Module V Research Writing and Ethics Structure of a research paper, thesis, and dissertation; Referencing styles (APA, MLA, Chicago, etc.) and reference management tools (Zotero, Mendeley, EndNote); Plagiarism: detection and avoidance (Turnitin, Grammarly, Urkund); Ethics in research: data integrity, authorship, reporting, reproducibility; Presentation skills: writing abstracts, policy briefs, and making effective presentations</p>	CO5,CO4
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> <ul style="list-style-type: none"> • Stock, J. H., & Watson, M. W. (2020). <i>Introduction to econometrics</i> (4th ed.). Pearson. • Creswell, J. W., & Creswell, J. D. (2018). <i>Research design: Qualitative, quantitative, and mixed methods approaches</i> (5th ed.). SAGE Publications. • Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & Fitzgerald, W. T. (2016). <i>The craft of research</i> (4th ed.). University of Chicago Press. <p>Reference Books:</p> <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. 	

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 (COs) to the Programme Outcomes (POs)

Course Outcomes (CO)	Programme Outcomes (PO)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO 1	2								
CO 2	1					2			
CO 3		2	3	3	3		2	3	2
CO 4				3					
CO5					3				3

Correlation level 1, 2 and 3 as

defined below:“1” – Slight (Low)

“2” – Moderate (Medium)

“3” – Substantial (High)

“-” – No correlation

Programme Outcome Details:

At the end of the programme, the students will be able to:

PO1: Improve quality of research writing

PO2: Enables to systematically find a research topic

PO3: Helps to analyze a given research problem

PO4: Apply research-based knowledge and techniques to analyze and interpret data for obtaining economic solutions

PO5: Develop acumen to perform various roles effectively as an academician

PO6: Examine ethical and societal concerns relating to research writing

PO7: Helps to organize the literature review

PO8: Helps in formatting and documentation of research paper

PO9: Helps in Theorizing and Conceptualizing the research framework

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

Bloom's Category	Internal Assessment 1 (15)	Internal Assessment 2 (15)	Assignments & Presentation (10)
Remember			
Understand	5	5	
Apply	5	5	10
Analyze		5	5
Evaluate		5	5
Create/Develop		5	5

End Semester Examination (ESE) - 60 Marks

Bloom's Taxonomy Level	Test Marks
Understand	10
Apply	20
Analyze	10
Evaluate	10
Create/Develop	10

Course Name	Master Thesis –II
Course Code	MECT-II
Course Credit	15
Course Type	Discipline Specific Course
Semester	IV (For Option-3)
Course Objective	The objectives of the course are: The objective of this course is to train the students for research and report writing.
Course Outcome (CO)	After undergoing the course, a student will be able to: CO1: Understand the relevance of socio-economic issues CO2: Apply the concepts of economics and econometric - research tool for empirical research CO3: Analyze and interpret results of data for drawing conclusion for solving real life problems CO4: Evaluate and develop constructive reports for policy recommendation CO5 : Create bonfide research output and publish in journal of repute to add to the existing literature
Pre-Requisite	Must complete Master Thesis-I

Master Thesis- II		
Outcome	Details	Evaluation (100 Marks)
Data Collection	To be completed	20 Marks
Data Analysis	To be completed	30 Marks
Master's Thesis	<ol style="list-style-type: none"> 1. Introduction 2. Background of the study & Literature Review 3. Research Methods 4. Data Analysis and Discussion 5. Implications 6. Limitations 7. Future Scope 8. Conclusions 9. References 10. Appendices <ul style="list-style-type: none"> ➤ Questionnaire/Data Collection form ➤ Detailed Calculations ➤ Other Support materials 	Presentation: 15 marks Viva-voce: 15 Marks Total: 30 marks
Dissertation	<ol style="list-style-type: none"> 11. Introduction 12. Background of the study & Literature Review 13. Research Methods 14. Data Analysis and Discussion <ul style="list-style-type: none"> ➤ Implications and Future Directions 	Presentation: 25 marks Viva-voce: 25 Marks Total: 50 marks

	<ul style="list-style-type: none">➤ Limitations15. Conclusions16. References17. Appendices<ul style="list-style-type: none">➤ Questionnaire/Data Collection form➤ Detailed Calculations➤ Other Support materials	
--	---	--