RAMAIAH UNIVERSITY OF APPLIED SCIENCES

M.S. Ramaiah University of Applied Sciences

Programme Structure and Course Details

Of

B.Sc. (Hons) in Economics

Programme Code: 413

Batch 2022-26

M.S. Ramaiah University of Applied Sciences
School of Social Sciences
Department of Economics

Registrar
M.S. Ramaiah University of Applied Sciences
Bangalore - 560 054

Dean - Academics
M.S. Ramaiah University of Applied Sciences
Bangalore-560054

Approved by the 26th Academic Council Meeting held in July 2022

University's Vision, Mission and Objectives

The M. S. Ramaiah University of Applied Sciences (MSRUAS) will focus on student-centric professional education and motivates its staff and students to contribute significantly to the growth of technology, science, economy and society through their imaginative, creative and innovative pursuits. Hence, the University has articulated the following vision and objectives.

Vision

MSRUAS aspires to be the premier university of choice in Asia for student centric professional education and services with a strong focus on applied research whilst maintaining the highest academic and ethical standards in a creative and innovative environment

Mission

Our purpose is the creation and dissemination of knowledge. We are committed to creativity, innovation and excellence in our teaching and research. We value integrity, quality and teamwork in all our endeavors. We inspire critical thinking, personal development and a passion for lifelong learning. We serve the technical, scientific and economic needs of our Society.

Objectives

1. To disseminate knowledge and skills through instructions, teaching, training, seminars, workshops and symposia in Engineering and Technology, Art and Design, Management and Commerce, Health and Allied Sciences, Physical and Life Sciences, Arts, Humanities and Social Sciences to equip students and scholars to meet the needs of industries, business and society
2. To generate knowledge through research in Engineering and Technology, Art and Design, Management and Commerce, Health and Allied Sciences, Physical and Life Sciences, Arts, Humanities and Social Sciences to meet the challenges that arise in industry, business and society
3. To promote health, human well-being and provide holistic healthcare
4. To provide technical and scientific solutions to real life problems posed by industry, business and society in Engineering and Technology, Art and Design, Management and Commerce, Health and Allied Sciences, Physical and Life Sciences, Arts, Humanities and Social Sciences
5. To instill the spirit of entrepreneurship in our youth to help create more career opportunities in the society by incubating and nurturing technology product ideas and supporting technology backed business
6. To identify and nurture leadership skills in students and help in the development of our future leaders to enrich the society we live in
7. To develop partnership with universities, industries, businesses, research establishments, NGOs, international organizations, governmental organizations in India and abroad to enrich the experiences of faculties and students through research and developmental programmes.

Faculty	Social Sciences
Department	Economics
Programme Code	413
Programme Name	B.Sc. (Hons) in Economics
Dean of the Faculty	
Head of the Department	

1. **Title of the Award:** B.Sc. (Hons) in Economics
2. **Mode of Study:** Full-Time
3. **Awarding Institution /Body:** M. S. Ramaiah University of Applied Sciences, Bengaluru
4. **Joint Award:** Not Applicable
5. **Teaching Institution:** School of Social Sciences, M. S. Ramaiah University of Applied Sciences, Bengaluru
6. **Date of Programme Specifications:** July 2022
7. **Date of Programme Approval by the Academic Council of MSRUAS:** 14-July-2022
8. **Next Review Date:** June 2026
9. **Programme Approving Regulating Body and Date of Approval:**
10. **Programme Accredited Body and Date of Accreditation: Not Applicable**
11. **Grade Awarded by the Accreditation Body: Not Applicable**
12. **Programme Accreditation Validity: Not Applicable**
13. **Programme Benchmark: Not Applicable**
14. **Rationale for the Programme**

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B.Sc. (Hons.) in Economics is an undergraduate honours degree programme designed to create motivated, energetic, thinking, and creative graduates. The programme aspires to prepare students for roles as economists, financial analysts, bank and commerce professions, trade markets experts and professionals like economic chief consultants, financial examiners, statistician, operations research analysts, credit analysts and so on.

The curriculum is outcome-based, and it imbibes required theoretical concepts and practical skills in the domain. Students develop application-oriented learning skills, critical, analytical thinking, and problem-solving abilities for a smooth transition from academic to the real-life work environment by undergoing this programme.

15. **Programme Mission**

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financial analysts, banking and commerce professions, trade markets experts and professionals like economic chief consultants, financial examiners, statisticians, operations research analysts, credit analysts, etc.

16. Graduate Attributes (GAs)

GA-1. Economics knowledge: Ability to apply knowledge of mathematics, science fundamentals to solve complex problems in economics

GA-2. Problem Analysis: Ability to analyse economics problems, interpret data and arriveat meaningful conclusions involving mathematical inferences

GA-3. Design and Development of Solutions: Ability to design an economics system, component, or process to meet desired needs considering public health and safety, and the cultural, societal, and environmental considerations

GA-4. Conduct Instigations of Complex Problems: Ability to understand and solve complex economics problems by conducting experimental investigations

GA-5. Modern Tool Usage: Ability to apply appropriate tools and techniques and understand utilization of resources appropriately to complex economic activities

GA-6. The economist and Society: Ability to understand the effect of economics solutions on legal, cultural, social, and public health and safety aspects

GA-7. Environment and Sustainability: Ability to develop sustainable solutions and understand their effect on society and environment

GA-8. Ethics: Ability to apply ethical principles to economic practices and professional responsibilities

GA-9. Individual and Teamwork: Ability to work as a member of a team, to plan and to integrate knowledge of various economics disciplines and to lead teams in multidisciplinary settings

GA-10. Communication: Ability to make effective oral presentations and communicate technical ideas to a broad audience using written and oral means

GA-11. Project Management and Finance: Ability to lead and manage multidisciplinary teams by applying economics and management principles

GA-12. Life-long learning: Ability to adapt to the changes and advancements in technology and engage in independent and life-long learning

17. Programme Outcomes (POs)

B.Sc. (Hons) (Economics)graduates will be able to:

PO-1. Apply the knowledge of economics to the solution of complex societal problems.

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PO-2. Identify problems by closely examining the situations around them and think holistically about the phenomena and generate viable solutions to these problems. Exhibit the skill of critical thinking and understand scientific texts and place scientific statements and themes in contexts and evaluate them in terms of generic conventions.

PO-3. Demonstrate ability to accommodate the views of others and present their own opinions and complex ideas, in written or oral form, in a clear and concise manner in group settings. Exhibit thoughts and ideas effectively in writing and orally; communicate with others using appropriate media, build effective interactive and presenting skills to meet global competencies.

PO-4. Infer scientific literature, build a sense of enquiry and be able to formulate, test, analyze, interpret, and establish hypothesis and research questions; and to identify and consult relevant sources to find answers.

PO-5. Create new conceptual, theoretical, methodological innovations that integrate and transcend beyond discipline-specific approaches to address a common problem.

PO-6. Perform independently and collaboratively as a part of a team to meet defined objectives and carry out work across interdisciplinary fields. Execute interpersonal relationships, self-motivation and adaptability skills and commit to professional ethics.

PO-7. Demonstrate empathetic social concern and equity centered national development and act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.

PO-8. Analyze the impact of the scientific solutions in societal and environmental contexts for sustainable development.

PO-9. Demonstrate attitudes of being a life-long learner who passionately pursues self-determined goals in the broadest context of socio-technological changes.

18. Programme Goal

The programme goal is to produce graduates with critical, analytical and problem solving skills, and ability to think independently, to pursue a career in Economics and allied areas.

19. Programme Educational Objectives (PEOs)

The objectives of the B.Sc. (hons) (Economics) programme are to:

PEO-1. Create a community of informed purveyors of knowledge geared towards academic excellence and increase the knowledge base and skill sets aimed at enhancing their professional competence.

PEO-2. Promote innovation and research by instilling a sense of independent and critical thinking with sensitivity to social needs.

PEO-3. Inculcate strong human values and social, interpersonal and leadership skills required for professional success in evolving global professional environments.

20. Programme Specific Outcomes (PSOs)

At the end of the B.Sc. (Hons) in Economics programme, the graduate will be able to:

PSO-1. Apply the knowledge of economics to develop innovative and inclusive understanding to real-world issues.

PSO-2. Acquire the skills necessary to think critically and communicate effectively about economics and allied domains.

PSO-3. Demonstrate the understanding of life-long learning and leadership qualities through professional development and strive for the betterment of organization, environment, and society.

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21. Programme Structure:

Semester 1							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	SSF101A	Compulsory Foundation Course 1 (CFC 1)	3	1		4	100
2	SSF102A	Compulsory Foundation Course 1 (CFC 2)	3	1		4	100
3	ENC101A	Principles of Microeconomics I	4	1		5	100
4	ENC102A	Mathematical Methods in Economics	4	1		5	100
5	ENO101A	Generic Elective 1	4	1		5	100
6	ENU101A	Ability Enhancement Course 1	1	1		2	100
Total			**19**	**6**		**25**	**600**
Total number of contact hours perweek			**25**				

Semester 2							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	SSF103A	Compulsory Foundation Course 3 (CFC 3)	3	1		4	100
2	SSF104A	Compulsory Foundation Course 4 (CFC 4)	3	1		4	100
3	ENC103A	Principles of Macroeconomics I	4	1		5	100
4	ENC104A	Advanced Statistics	4	1		5	100
5	ENU102A	Skill Enhancement Course – 1 (SEC-1)	1	1		2	100
Total			**15**	**5**		**20**	**500**
Total number of contact hours per week			**20**				

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Semester 3							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	ENC201A	Principles of Microeconomics II	4	1		5	100
2	ENC202A	Principles of Macroeconomics II	4	1		5	100
3	ENC203A	Introductory Econometrics	4	1		5	100
4	ENC204A	Growth Economics	4	1		5	100
5	ENO201A	Generic Elective 2	4	1		5	100
6	ENU201A	Ability Enhancement Course 2	1	1		2	100
Total			21	6		27	600
Total number of contact hours perweek			27				

Semester 4							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	ENC205A	Advanced Econometrics (CC)	4	1		5	100
2	ENC206A	Development Economics (CC)	4	1		5	100
3	ENE207A	Public Economics (DSE)	4	1		5	100
4	ENE208A	Labor Economics (DSE)	4	1		5	100
5	ENO202A	Generic Elective-3	4	1		5	100
Total			15	5		20	400
Total number of contact hours per week			20				

Students must choose one DSE out of two DSEs

Semester 5

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Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	ENC301A	Resource and Environmental Economics	4	1		5	100
2	ENC302A	Indian Economics	4	1		5	100
3	ENC303A	International Trade	4	1		5	100
4	ENE304A	Political Economy	4	1		5	100
5	ENE305A	Industrial Economics	4	1		5	100
6	ENE306A	Advanced Microeconomics	4	1		5	100
		Total	**20**	**5**		**25**	**500**
Total Number of Contact Hours perweek			**25**				

Students must choose two DSE out of three DSEs

Semester 6							
Sl. No.	**Code**	**Course Title**	**Theory (h/W/S)**	**Tutorials (h/W/S)**	**Practical (h/W/S)**	**Total Credits**	**Max. Marks**
1	ENC307A	Dissertation/Project (CC)	12			6	100
2	ENE308A	Corporate and International Finance (DSE)	4	1		5	100
3	ENE309A	Advanced Macroeconomics (DSE)	4	1		5	100
4	ENE310A	Health Economics (DSE)	4	1		5	100
5	ENE311A	Economics of Education (DSE)	4	1		5	100
Total			**24**	**3**		**21**	**400**
Total Number of Contact Hours per week			**27**				

Students must choose three DSE out of four DSEs

Semester 7							
Sl. No.	**Code**	**Course Title**	**Theory (h/W/S)**	**Tutorials (h/W/S)**	**Practical (h/W/S)**	**Total Credits**	**Max. Marks**
1	ENO401A	Open Electives (SSS) – 1	4	1		5	100
2	ENO402A	Open Electives (SSS) – 2	4	1		5	100
3	ENO403A	Open Electives (SSS) – 3	4	1		5	100
4	ENO404A	Open Electives (SSS) - 4	4	1		5	100
		Total	**16**	**4**		**20**	**400**
Total Number of Contact Hours per week			**20**				

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Semester 8							
Sl. No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	ENI401A	Capstone/project/ Internship	12			6	100
Total			**12**			**6**	**100**
Total Number of Contact Hours perweek			**12**				

Grand Total: 164

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22. Open Elective Courses

A number of Open Elective Courses from Faculties of engineering, management and commerce, art and design, hospitality management and catering technology, pharmacy, dental sciences are offered as mentioned in the University's website. Students can choose the Open Electives on their own choice.

23. Course Delivery: As per the Timetable

24. Teaching and Learning Methods

1. Face to Face Lectures using Audio-Visuals
2. Workshops, Group Discussions, Debates, Presentations
3. Demonstrations
4. Guest Lectures
5. Laboratory work/Field work/Workshop
6. Industry Visit
7. Seminars
8. Group Exercises
9. Project Work
10. Project
11. Exhibitions
12. Technical Festivals

25. Assessment and Grading

25.1. Components of Grading

There shall be **two components** of grading in the assessment of each course:

Component 1, Continuous Evaluation (CE): This component involves multiple subcomponents (SC1, SC2, etc.) of learning assessment. The assessment of the subcomponents of CE is conducted during the semester at regular intervals. This subcomponent represents the formative assessment of students' learning.

Component 2, Semester-end Examination (SEE): This component represents the summative assessment carried out in the form an examination conducted at the end of the semester.

Marks obtained CE and SEE components have a weightage of 60:40 (CE: 60% and SEE: 40%) in determining the final marks obtained by a student in a Course.

The complete details of Grading are given in the Academic Regulations.

25.2. Continuous Evaluation Policies

Continuous evaluation depends on the type of the course as discussed below:

25.2.1 Theory Courses

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For Theory Courses Only			
Focus of COs on each Component or Subcomponent of Evaluation			
	Component 1: CE (60% Weightage)		Component 2: SEE (40% Weightage)
Subcomponent Type ▶	Terms Tests	Assignments	
CO-1			
CO-2			
CO-3			
CO-4			
CO-5			
CO-6			
The details of number of tests and assignments to be conducted are presented in the Academic Regulations and Programme Specifications Document.			

- CE components should have a mix of term tests, quiz and assignments
- Two Tests (15 each), Two Assignments (20 marks). (One written and another to be MCQs)
- Course leaders to declare the assessment components before the commencement of the session and get approval from HoD and Dean

25.2.2 Laboratory Course

For a laboratory course, the scheme for determining the CE marks is as under:

For Laboratory Courses Only			
Focus of COs on each Component or Subcomponent of Evaluation			
	Component 1: CE (60% Weightage)		Component 2: SEE (40% Weightage)
Subcomponent Type ▶	Conduct of Experiments	Laboratory Report + Viva	Laboratory SEE
CO-1			
CO-2			
CO-3			
CO-4			
CO-5			
CO-6			
The details of number of tests and assignments to be conducted are presented in the Academic Regulations and Programme Specifications Document			

The subcomponents can be of any of the following types:

a) Laboratory / Clinical Work Record
b) Experiments
c) Computer Simulations
d) Creative Submission
e) Virtual Labs
f) Viva / Oral Exam
g) Lab Manual Report
h) Any other (e.g. combinations)

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Course leaders to declare the assessment components before the commencement of the session and get approval from HoD and Dean

25.2.3 Course Having a Combination of Theory and Laboratory

For a course that contains the combination of theory and laboratory sessions, the scheme for determining the CE marks is as under:

For Combined Courses (Theory + Laboratory)					
Focus of COs on each Component or Subcomponent of Evaluation					
Course Outcome	CE (Weightage: 60 %) Four components including one Lab component			SEE (Weightage: 25 %)	Lab (Weightage: 15 %)
	Tests (30 %)	Written Assignments+ Lab (20 %)	Assignment +Lab CE (10%)	Written exam	LSEE: SEE
CO-1					
CO-2					
CO-3					
CO-4					
CO-5					
CO-6					
The details of number of tests and assignments to be conducted are presented in the Academic Regulations and Programme Specifications Document.					

- CE components should have a mix of term tests, quiz and assignments
- Two Tests (15 each), Two Assignments (20 marks). (One written and another to be MCQs)
- In case of courses where laboratory is combined with theory, laboratory components to be assessed in both CE and SEE
- Course leaders to declare the assessment components before the commencement of the session and get approval from HoD and Dean

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25.2.4 Ability Enhancement courses

For AECC Only		
Focus of COs on each Component or Subcomponent of Evaluation		
Subcomponent Type ▶	Component 1: CE (50% Weightage) Terms Tests or Assignments	Component 2: SEE (50% Weightage)
CO-1		
CO-2		
CO-3		
CO-4		
CO-5		
CO-6		
The details of number of tests and assignments to be conducted are presented in the Academic Regulations and Programme Specifications Document.		

- Course leaders to declare the assessment components before the commencement of the session and get approval from HoD and Dean

Schedule of CE Components in a Semester

Week 6	Week 8	Week 10	Week 12	Week 13
Test -1 for 25 marks reduced to 15	Multiple Choice Questions Tests on the topics covered – reduced to 10 marks		Test -2 for 25 marks reduced to 15	Written Assignment for 40 marks reduced to 20 marks

SEE

- **For NEP Programmes - SEE for 50 marks reduced to 40**

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26. Minor Programme

The details of the following aspects of the minor programmes are presented in the **Academic Regulations** for the B. Sc. Degree Programme:

1. Programme Structure
2. Eligibility to Minor Programme
3. Registration to Minor Programme
4. Certification for Minor Programme

27. Student Support for Learning

1. Course Notes
2. Reference Books in the Library
3. Magazines and Journals
4. Internet Facility
5. Computing Facility
6. Laboratory Facility
7. Workshop Facility
8. Staff Support
9. Lounges for Discussions
10. Any other support that enhances their learning

28. Quality Control Measures

1. Review of Course Notes
2. Review of Question Papers and Assignment Questions
3. Student Feedback
4. Moderation of Assessed Work
5. Opportunities for students to see their assessed work
6. Review by external examiners and external examiners reports
7. Staff Student Consultative Committee meetings
8. Student exit feedback
9. Subject Assessment Board (SAB)
10. Programme Assessment Board (PAB)

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29. Programme Map (Course-PO-PSO Map)

Sem.	Course Title	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
1	Compulsory Foundation Course 1 (CFC 1)	3		2			1				3	1	2
1	Compulsory Foundation Course 1 (CFC 2)	3		2				1		1	3	1	2
1	Principles of Microeconomics I	3		2			1				3	1	2
1	Mathematical Methods in Economics	3	2						1		3	2	1
1	Generic Elective 1			2		3			2	1	2	3	1
1	Ability Enhancement Course 1	2	3							1	3	2	1
2	Compulsory Foundation Course 3 (CFF 3)	3		2			1				3	1	2
2	Compulsory Foundation Course 4 (CFC 4)	3	2							1	3	2	1
2	Principles of Macroeconomics I	3		2			2				2	3	1
2	Advanced Statistics	2		3		3	3		2		2	3	1
2	Skill Enhancement Course – 1 (SEC-1)					3	2			2	2	3	1
3	Principles of Microeconomics II	3		2			1				3	1	2
3	Principles of Macroeconomics II			1		2			3		3	2	1
3	Introductory Econometrics	3		2			1				3	1	2
3	Growth Economics	2		3			1				2	3	1
3	Generic Elective 2			3	2			1			2	3	1
3	Ability Enhancement Course 1	3		2			1				3	1	2
4	Advanced Econometrics (CC)		3	2			1				3	2	1
4	Development Economics (CC)	2					1		3		3	2	1
4	Public Economics (DSE)		3	2						1	3	1	2
4	Labor Economics (DSE)	3		2			1				3	1	2
4	Generic Elective-3		3	1			2				3	2	1
5	Resource and Environmental Economics (CC)			3				1	2		2	3	1
5	Indian Economics (CC)				3		2			1	2	3	1
5	International Trade (CC)		3	1			2				3	2	1
5	Political Economy (DSE)	2					1		3		3	2	1
5	Industrial Economics (DSE)			1		2			3		3	2	1
5	Advanced Microeconomics (DSE)		3	1			2				3	2	1
6	Dissertation/Project (CC)				3	3			2		3	1	2
6	Corporate and International Finance (DSE)	2					1		3		3	2	1
6	Advanced Macroeconomics (DSE)		3	1			2				3	2	1
6	Health Economics (DSE)	2		3		3	3		2		2	3	1
6	Economics of Education (DSE)					3	2			2	2	3	1
7	Open Electives (SSS) – 1	3		2			1				3	1	2
7	Open Electives (SSS) – 2			1		2			3		3	2	1
7	Open Electives (SSS) – 3	2					1		3		3	2	1
7	Open Electives (SSS) - 4			1		2			3		3	2	1
8	Capstone/project/ Internship				3	3			2		3	1	2
3: Very Strong, 2: Strong Contribution, 1: Moderate Contribution													

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30. Co-curricular Activities

Students are encouraged to take part in co-curricular activities like seminars, conferences, symposia, paper writing, attending industry exhibitions, project competitions and related activities for enhancing their knowledgeand networking.

31. Cultural and Literary Activities

Annual cultural festivals are held to showcase the creative talents in students. They are involved in planning andorganizing the activities.

32. Sports and Athletics

Students are encouraged to take part in sports and athletic events regularly. Annual sports meet will be held todemonstrate sportsmanship and competitive spirit.

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RAMAIAH UNIVERSITY OF APPLIED SCIENCES

Course Specifications

B.SC. (Hons) in Economics

Programme Code:

School of Social Sciences
Batch 2022-2026

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SEMESTER 1

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Course Specifications: Principles of Microeconomics-I

Course Title	Principles of Microeconomics-I
Course Code	ENC101A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. *Course Summary*

The objective of this course in to introduce different market structures. Also some aspects of advanced consumer behavior are covered. Finally, some aspects of modern microeconomics theories viz. game theory, asymmetric information are also introduced.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. *Course Outcomes (COs)*

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

CO-1. Know the basic concepts and subject-matter of microeconomics;
CO-2. Learn about how price is determined through interactions between buyers and sellers
CO-3. Apprehend the consumer's choice under various conditions;
CO-4. Understand different concepts of costs and production and their role in determining the producer's behavior.

4. *Course Contents*

Unit 1: Exploring the subject matter of Economics (brief introduction)

1. Scope and method of economics: scarcity, choice and market; what to produce, how to produce and how to distribute output; scarcity of resources, opportunity cost and trade off; efficient product combination; positive vs. normative issues; partial equilibrium (ceteris paribus assumption) vs. general equilibrium (inter-dependence of markets); microeconomic issues vs. macroeconomic issues; economic systems/models

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2. Concept of Market and prices: self-interested agents; competition as basic driving force; price as an invisible hand; price and value: value paradox; real and nominal prices
3. Market Regulation and government intervention: why and when should government intervene – Case of market failure (externality; public good); equity vs. efficiency (the issue of distribution); rationing; employment generation;

Unit 2: Demand and Supply Analysis in a Competitive Market

1. Perfectly competitive market – Features: atomistic agents, anonymity, homogeneous products, and perfect information
2. Demand: schedule and curve; law of demand and its exceptions; determinants of individual demand; shifts v/s movements along the demand curve; elasticity – own price elasticity and slope of demand curve; factors influencing own-price elasticity; cross-price elasticity; substitutes and complements; income elasticity; normal and inferior goods; derivation of market demand curve from individual demand curve.
3. Supply: schedule and curve (implication as marginal cost curve); determinants; shifts v/s movements along the curve; elasticity - price elasticity of supply and slope of supply curves; Marshal's time period analysis; Market supply from individual supply;
4. Equilibrium in a Competitive market: Concept of equilibrium; price adjustments under excess demand or excess supply; comparative statics: changes in demand; changes in supply.
5. Markets and Welfare - consumer surplus; producer surplus, social welfare.

Unit 3: The Consumer Theory

1. The consumption decision/choice problem - budget constraint and budget set.
2. Consumer preferences: Concept and properties of indifference curves; nature of commodities: good vs. bad (pollution); perfect substitutes, perfect complements; cardinal v/s ordinal utility
3. Consumer's optimum choice; marginal rate of substitution, tangency condition.
4. Effect of change in price; derivation of demand curve; decomposition into income and substitution effects.
5. Effect of change in income: income consumption curve, Engel curve.

Unit 4: Production, Technology and Firm's Input Choices

1. Technology and production: concept of production function and cost minimising choice of inputs.
2. Iso-product curve/isoquant and properties; production technology v/s production technique.
3. Short-run and law of variable proportions (TP, AP, MP curves); long run and returns to scale (IRS, CRS, DRS).
4. Cost of production and Firm's input choices: Cost structure – explicit v/s implicit or opportunity cost; economic and accounting costs.
5. Cost equation, isocost line; Cost minimization and choice of technique; long run and short run expansion path

Unit 5: Cost Functions/cost curves

1. Concepts of different types of costs curves – fixed, sunk, variable costs; total, average, and marginal costs; short-run total, average, fixed cost curves, short run marginal cost curve. Relation between these curves with the product curves
2. Long-run cost functions; economies and diseconomies of scale and shape of the long-run average cost curve, derivation of LAC as envelope to SACs, long run marginal cost curve.

Product transformation curve, joint production, economies and diseconomies of

scope.

5. *Course Map (CO-PO-PSO Map)*

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	1	2
CO-2	3		2			1				3	1	2
CO-3	3		2			1				3	1	2
CO-4	3		2			1				3	1	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. *Course Teaching and Learning Methods*

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	00
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

a. Essential Reading

1. Principles of Micro Economics - Gregory Mankiw
2. Microeconomics - Pindyck and Rubinfeld

10. *Course Organization*

Course Code	ENC101A		
Course Title	Principles of Microeconomics-I		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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Course Specifications: Mathematical Methods in Economics

Course Title	Mathematical Methods in Economics
Course Code	ENC102A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

The goal of this course is to give the students sufficient knowledge of fundamental principles, methods and a clear perception of mathematical tools needed in economics and to equip students with necessary analytic and technical skills to handle problems of mathematical nature

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Know the basic concept of mathematics used in Economics;
CO-2. Understand the role and importance of the subject;
CO-3. Apply the various tools of mathematics in Economics;
CO-4. Evaluate the various policy options in economics quantitatively.

4. Course Contents

Unit 1: Logic: Propositions and truth values; Tautologies and Contradictions; Deduction and Induction; Different proof techniques.

Unit 2: Set Theory: Definition of a set and discussion of related concepts; Set types; Operations on sets; Nested sets; Cartesian product; Concept of Euclidean Space.

Unit 3: Functions and Correspondences: Definitions; Concepts of 'range', 'domain' and 'mapping'; Explicit and implicit functions; Types of functions and correspondences polynomial, exponential, logarithmic, power etc.

Unit 4: Brief Review of Differential and Integral Calculus: Discussion of concepts of limits and continuity, derivative, partial derivative, total differential and integral; Applications of differential and integral calculus to the study of functions: slope and

curvature of functions, distinction between concave and convex functions; maxima and minima, area under a curve etc.

Unit 5: Mean value theorems of Derivative: Polynomial approximation of functions; Taylor's formula with remainder.

Unit 6: Other Topics: Permutations and Combinations; Various types of series (arithmetic, geometric, logarithmic, exponential, Taylor's; linearization of nonlinear series and McLaurin's); Brief review of trigonometric functions and associated curves.

Unit 7: Vector, Matrix and Euclidian Space: Vectors, Points, Distance formula, Algebra of Vectors, Lines and Planes. System of simultaneous linear equations and matrix algebra including addition, subtraction, multiplication, laws of matrix algebra, transpose, square matrices, the determinant of a matrix, properties of determinants, cofactors, Cramer's rule.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3	2						1		3	2	1
CO-2	3	2						1		3	2	1
CO-3	3	2						1		3	2	1
CO-4	3	2						1		3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		35
1. Solving Numerical Problems	35	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	00
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

a. Essential Reading

1. Sydsaeter and Hammond: Mathematics for Economics Analysis. Pearson Education India.
2. Michael Hoy, John Livernois, Chris McKenna, Ray Rees, Thanasis Stengos: Mathematics for Economics. PHI.
3. Chiang, Wainwright: Fundamental Methods of Mathematical Economics. Mc Graw Hill Education.
4. Simon and Blume: Mathematics for Economists. Viva Books

10. Course Organization

Course Code	ENC102A	
Course Title	Mathematical Methods in Economics	
Course Leader's Name	As per Timetable	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date		
Next Course Specifications Review Date		

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SEMESTER 2

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Course Specifications: Principles of Macroeconomics-I

Course Title	Principles of Macroeconomics-I
Course Code	ENC103A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

The objective of the course is to familiarize the students about the various concepts in macroeconomics. The course structure covers the major ideas in economics and intends to provide wider vision of the present discourses in macroeconomics. The course will help to develop aptitude to relate concepts with research and policy.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Understand the basis of learning macroeconomics.
CO-2. Measure and analyze the income and employment determination under classical and Keynesian economics.
CO-3. Conceptualize the various terminologies used in national income, consumption and investment.
CO-4. Learn the concepts of multiplier and accelerator, government expenditure and tax multipliers.

4. Course Contents

Unit 1: National Income Accounting: Basic concepts of National Income accounting; The circular flow; Concepts of GNP, GDP, NNP, and NDP; The measurement of National Income; The role of Government; Determinates of Saving-Investment; National Income accounting and cost of living. Inflation and Measurements; Basic idea of India's national income.

Unit 2: The Classical system: Income and Output Determination: Basic ideas of Classical Macroeconomics; Say's Law and Quantity Theory of Money, Loanable fund theory; the Classical Theory of Income and Employment determination; full Employment and wage-price

flexibility; Classical Dichotomy and Neutrality of Money.

Unit 3: Simple Keynesian Model (SKM): Income and Output Determination-The SKM in a Closed Economy without Government; Consumption Function; the Keynesian Saving Function; Income and Output determination; stability of equilibrium; the concept of effective demand- the concept of demand-determined output ; the Simple Keynesian Multiplier; the paradox of thrift; the SKM in a Closed Economy with Government; government expenditure and tax; the government expenditure multiplier and the tax rate multiplier; the balanced budget multiplier; the budget surplus; effects of tax changes and government purchases on budget surplus; the full employment budget surplus.

Unit 4: Macroeconomic Foundations: The bond market as the mirror image of the money market-the Walras' Law. Relationship between bond price and rate of interest- the concept of Keynesian liquidity preference schedule-speculative demand for money and liquidity trap. Investment function: Concepts of Marginal productivity of capital, marginal efficiency of capital (MEC) and marginal efficiency of investment (MEI)- Jorgenson's neo-classical theory-Acceleration principle- fixed and variable. Multiplier-accelerator interaction.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			2				2	3	1
CO-2	3		2			2				2	3	1
CO-3	3		2			2				2	3	1
CO-4	3		2			2				2	3	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	00
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

b. Essential Reading

1. Mankiw. Macroeconomics. Worth Publishers.
2. Froyen. Macroeconomics. Pearson Education.
3. Ackley Gardne. Macroeconomics. Macmillan.
4. Dornbusch & Fischer. Macroeconomics. McGraw Hill.

10. Course Organization

Course Code	ENC103A		
Course Title	Principles of Macroeconomics-I		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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Course Specifications: Advanced Statistics

Course Title	Advanced Statistics
Course Code	ENC104A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

In Economics, the theories have been developed or confirmed on the basis of observed data. So, a study with regard to the statistical tools becomes necessary for the students in order to have clarity in Economics. This course tries to impart knowledge to the students in the field of statistics. The course is an attempt to let the students know about probability distribution and hypothesis testing, techniques of simple correlation and regression, statistical inference, theory of index numbers and time series.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Learn various statistical tools.
CO-2. Use these tools in different economic problems.
CO-3. Understand how by using statistical tools prediction for future can be done; so it can help in normative economics.
CO-4. Analyze the data pertaining to various economic variables.

4. Course Contents

Unit 1: Correlation and Regression: Covariance and coefficient of correlation, regression and coefficient of determination.

Unit 2: Probability Distribution: Discrete probability distribution; Uniform, Binomial and Poisson distribution; Continuous probability distribution; Uniform, Normal, Chi-square, t and F distribution.

Unit 3: Statistical Inference and Hypothesis Testing: Point estimates and interval estimates, one tail and two tailed test, p-value, large and small sample tests.

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Unit 4: ANOVA: One and two factors analysis of variance.
Unit 5: Time Series: Components, measurement of trend and statistical fluctuations.
Unit 6: Index Numbers: Price and quantity indices; Different tests for index numbers.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	2		3		3	3		2		2	3	1
CO-2	2		3		3	3		2		2	3	1
CO-3	2		3		3	3		2		2	3	1
CO-4	2		3		3	3		2		2	3	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	00
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

Essential Reading

1. Kenney and Keeping. Mathematical Statistics. Part 1 & Part II, Chapman and Hall.
2. Croxton, Cowden and Klein. Applied Statistics, Prentice Hall.
3. Hogg and Craig. Introduction to Mathematical Statistics, Prentice Hall.
4. Goon, Gupta and Dasgupta. Fundamentals of Statistics, The World Press.
5. N G Das, Statistical Methods, McGraw Hill Education

Course Organization

Course Code	ENC104A		
Course Title	Advanced Statistics		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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SEMESTER 3

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Approved by the 26th Academic Council Meeting held in July 2022

Course Specifications: Principles of Microeconomics-II

Course Title	Principles of Microeconomics-II
Course Code	ENC201A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course covers Keynesian theories, viz. IS-LM and Complete Keynesian Model. The difference between short run and long run macroeconomics is introduced. Finally, the course introduces open economy macroeconomics.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Learn intermediate consumer behavior theory and its applications;
CO-2. Understand the idea behind a competitive market and its properties;
CO-3. Learn markets under imperfect competition; monopoly and oligopoly;
CO-4. Learn game theory and theory under asymmetric information.

4. Course Contents

Unit 1: Theories of Consumer Behavior and Applications: Introduction to markets; Inter-temporal choice (saving and borrowing). Revealed preference. Choice under uncertainty – utility function and expected utility, risk aversion and risk preference.

Unit 2: The Firm and Perfect Market Structure: Organization, Firms and Profit Maximization. Marginal Revenue, Marginal Cost and Profit Maximization. Short run competitive equilibrium of the firm, short run supply curve of firm and industry, Output choice and competitive equilibrium in long run. Consumer and Producer surplus. Introduction to input markets.

Unit 3: Imperfect Competition: Monopoly; Oligopoly; Introduction to Game Theory; Introduction to models under asymmetric information.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	1	2
CO-2	3		2			1				3	1	2
CO-3	3		2			1				3	1	2
CO-4	3		2			1				3	1	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

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7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Midterm exam	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

c. Essential Reading

1. Intermediate Microeconomics : A Modern Approach - Hal R Varian - Publisher: SPRINGER (INDIA) PVT. LTD
2. Intermediate Microeconomics and Its Application - Walter Nicholson, Christopher M Snyder - Publisher: South-Western

10. Course Organization

Course Code	ENC201A	
Course Title	Principles of Microeconomics-II	
Course Leader's Name	As per Timetable	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date		
Next Course Specifications Review Date		

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Course Specifications: Principles of Macroeconomics-II

Course Title	Principles of Macroeconomics-II
Course Code	ENC202A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Learn the macroeconomics in the long run – The Classical Model.
CO-2. Learn the macroeconomics in the short run – The Keynesian Revolution.
CO-3. Learn effectiveness of different government policies under short run and long run.
CO-4. Learn basics of the open economy macroeconomics.

4. Course Contents

Unit 1: IS-LM Model: equilibrium, stability and comparative statics. Crowding out. Effects of fiscal and monetary policies.

Unit 2: Complete Keynesian Model: Derivation of aggregate demand curve. Derivation of aggregate supply curves both in the presence and absence of wage rigidity. Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies (including effect of wage cuts).

Unit 3: Keynes vs. Classics: Hybrid Models. Friedman's restatement of classical ideas.

Unit 4: Open Economy Models: Concepts of exchange rates; nominal and real exchange rates; floating, fixed and pegged exchange rates; Balance of Payments; Absolute and

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Comparative advantages.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1			1		2			3		3	2	1
CO-2			1		2			3		3	2	1
CO-3			1		2			3		3	2	1
CO-4			1		2			3		3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00

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Total Duration in Hours	**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

Essential Reading

1. Macroeconomics - N. Gregory Mankiw - Publisher: Worth
2. Macroeconomics: Theories and Policies - Richard T. Froyen - Publisher: Pearson Education India
3. Macroeconomics : Theory And Policy - W. H. Branson - Publisher: East West Book Pvt Ltd

10. Course Organization

Course Code	ENC202A	
Course Title	Principles of Macroeconomics-II	
Course Leader's Name	As per Timetable	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date		
Next Course Specifications Review Date		

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Course Specifications: Introductory Econometrics

Course Title	Introductory Econometrics
Course Code	ENC203A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to the basic econometric theories. It provides some useful tools for student's future research. It also helps the students to develop a way of thinking in quantitative terms.

***2.* Course Size and Credits:**

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Understand the nature and scope of econometrics.
CO-2. Learn Classical Linear Regression Model and its properties and applications.
CO-3. Learn the use of statistical inferences and hypothesis testing in econometrics.

4. Course Contents

Unit 1: Nature and Scope of Econometrics: Distinction between Economic Model and Econometric model. Concept of stochastic relation, Role of random disturbance in econometric model.

Unit 2: Types of data: Cross section, time series, panel and pooled cross sectional data.

Unit 3: Classical Linear Regression Model - Part 1: The classical assumptions. Concepts of population regression function and sample regression function. Estimation of model by method of ordinary least squares (both simple and multiple linear model). Simple correlation, partial correlation, and multiple correlation.

Unit 4: Classical Linear Regression Model - Part 2: Properties of the Least Squares Estimators (BLUE) in SLRM- Gauss-Markov theorem. Qualitative (dummy) independent variables – intercept dummy and slope dummy.

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Unit 5: Statistical inference in linear regression model: Use of standard normal, chi2, t, and F statistics in linear regression model. Testing hypothesis, Single test and Joint test. Goodness of fit (in terms of R2, adjusted R2 and F statistic), Analysis of Variance (ANOVA).

Unit 6: Violations of Classical Assumptions: Multicollinearity - Consequences, Detection (Variance Inflationary Factor (VIF)) and Remedies. Heteroscedasticity - Consequences, Detection (Lagrange Multiplier test) and Remedies. Autocorrelation - Consequences, Detection (Durbin-Watsontest) and Remedies.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	1	2
CO-2	3		2			1				3	1	2
CO-3	3		2			1				3	1	2
CO-4	3		2			1				3	1	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		35
1. Solving Numerical Problems	35	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	00
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

Essential Reading

1. Basic Econometrics - Damodar Gujarati, Dawn Porter, Sangeetha Gunasekar - Publisher: McGraw Hill Education
2. Introductory Econometrics: A Modern Approach - Jeffrey Wooldridge - Publisher: South-Western College Publishing
3. Introduction to Econometrics - G S Maddala, Kajal Lahiri - Publisher: Wiley

10. Course Organization

Course Code	ENC203A		
Course Title	Introductory Econometrics		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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Course Specifications: Growth Theory

Course Title	Growth Theory
Course Code	ENC204A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to the understanding about economic growth, its benefits and costs, determinants and policies that promote growth, ways to measure, country experiences and implications for their overall future development.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

After the successful completion of this course, the student will be able to understand:

CO-1. The importance of growth and different sources of growth and identify the stages of growth.
CO-2. Understand cross country growth experiences.
CO-3. The role of physical capital and human capital development in growth.
CO-4. The role of technology and productivity in growth.
CO-5. The role of population demographics in growth.

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4. Course Contents

Unit 1: Economic Growth – Basic Issues (Introduction)

1. What is Economic growth and how is it measured; total v/s per capita growth; measuring growth rate; economic development v/s economic growth; stylised facts about growth experiences across countries - differences in level of income between countries, differences in the rates of income growth.
2. Benefits of Growth; costs (adverse effects) of growth - jobless growth, Kuznet's hypothesis, dislocation; Inclusive growth; growth and welfare in open economy; fundamental sources of growth.

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Unit 2: Physical Capital, Investment and Growth

1. Production function and the role of physical capital, sources of growth in capital; CRS production technology
2. The relationship between investment and capital formation and saving: Harrod-Domar theory of growth (actual, warranted, natural growth rates).
3. Lewis Model of capital accumulation.
4. The Solow Model, derivation of steady state, Cobb-Douglas production function, convergence to steady state.
5. Solow model with savings, Golden rule.

Unit 3: Productivity, Technology and Growth

1. Measuring productivity in the production function. Measuring productivity growth using Cobb Douglas function.
2. Differences in the level of productivity and growth rates of productivity across countries.
3. Technology and growth. The nature of technological progress: technology creation, technology transfer, R&D.
4. Relationship between technology creation and endogenous growth: the AK model.
5. The technology production function. Differential technological progress.

Unit 4: Population and Growth

1. The Malthusian Model; Population growth in the extended Solow Model.
2. Explaining concepts of population - mortality, life expectancy, mortality transition, fertility transition demographic transition.

Unit 5: Human Capital.

1. Contribution of Health
2. Contribution of Education.

Unit 6: Some Perspectives on stages of Growth and Lessons learnt.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	2		3			1				2	3	1
CO-2	2		3			1				2	3	1
CO-3	2		3			1				2	3	1
CO-4	2		3			1				2	3	1
CO-5	2		3			1				2	3	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		35
1. Solving Numerical Problems	35	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Term Test	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	

CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

Essential Reading

1. Economic Growth by David N. Weil, Pearson publishing
2. Macroeconomics by Gregory N. Mankiw
3. Analytical Development Economics by Kaushik Basu, Oxford India Paperback.
4. Development Economics by Debraj Ray.

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10. Course Organization

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Course Code	ENC204A		
Course Title	Growth Theory		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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SEMESTER 4

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Course Specifications: Advanced Econometrics

Course Title	Advanced Econometrics
Course Code	ENC205A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course starts with econometrics modelling. It will also cover Qualitative response models, viz. logit, probit and tobit and linear probability model. Finally, basic time series analysis will be introduced to the students.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Learn advanced econometrics concepts and its applications;
CO-2. Understand econometrics modelling;
CO-3. Learn qualitative response models;
CO-4. Learn basic time series analysis.

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4. Course Contents

Unit 1: Econometric Modeling: Model Specification and Diagnostic Testing: Model selection criteria; Types of specification errors; Consequences of model specification errors; Tests of specification errors; Errors in measurements.

Unit 2: Qualitative Response Regression Models: Linear Probability Model; Logit Model, Probit Model; Tobit Model.

Unit 3: Time Series Econometrics: Some Basic Concepts: Stochastic process; Unit root stochastic process; trend stationary and difference stationary stochastic process; integrated stochastic process.

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5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1
CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1
CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	00
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent	**SC1**	**SC2**	**SC3**	
Subcomponent Type	**Term Test**	**Assignment-1**	**Assignment-2**	**100 Marks**
Maximum Marks	**50**	**25**	**25**	
CO -1				
CO -2				
CO -3				
CO -4				
CO -5				
CO -6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

a. Essential Reading

1. Basic Econometrics - Gujarati and Potter

2. Introductory *Econometrics*: A Modern. Approach - Jeffrey M. Wooldridge

10. Course Organization

Course Code	ENC205A		
Course Title	Advanced Econometrics		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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Course Specifications: Development Economics

Course Title	Development Economics
Course Code	ENC206A
Course Type	Core Theory
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to the understanding about economic growth, its benefits and costs, determinants and policies that promote growth, ways to measure, country experiences and implications for their overall future development.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO1: learn and understand the development objectives of an economy;
CO2: know the basic concepts and subject-matter of marcoeconomics characteristics of underdeveloped economics;
CO3: conceptualize informational Asymmetries and market failure in credit and labor markets;
CO4: understand the conceptual and measurement issues related to poverty, inequality and growth;
CO5: learn the models that explain Strategies of Development;

4. Course Contents

Unit 1. Development Discourse: The Present Setting: Growth- Inequality- Poverty debate: Economic Efficiency Versus Social Justice, Inclusive Growth: Top Down versus Bottom Up

approach. Conceptual issues about the relationship between growth and development-Human development index, its alternative forms and critique.

Unit 2. Strategies of Development: Rostow's Stages of Economic growth; The low level equilibrium trap in a multiple equilibrium situation (arguments offered by Nurkse, Rosenstein-Rodan and formalized by Murphy. Shleifer & Vishny); Vicious circle of poverty and the critical minimum effort hypothesis-big push argument; Hirschman's Balanced vs. unbalanced growth; Choice of Technique and Investment criteria.

Unit 3. Informational Asymmetries and market failure: Capital/credit Market: FDI- Modes, types, determinants, technology access & consequences, Imperfections in Capital Market: organized and unorganized capital market; Labour Market: Informal Sector-Importance, Nature of employment, Linkages with Formal Sector.

Unit 4. Marco characteristics of underdeveloped economics: Dual economy structure: open and disguised unemployment and migration: revisiting Lewis Model; Ranis-Fei-Harris-Todaro model of Rural-urban migration and their critiques; Poverty - Conceptual Issues; Measurement; Functional Effects; Inequality: Conceptual Issue and Measurement Issues: income inequality, wage inequality. Piketty's hypothesis and recent controversies. Kuznets' inverted-U hypothesis: inequality as a constraint to growth; basics of Galore-Zeira model.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1			1		2			3		3	2	1
CO-2			1		2			3		3	2	1
CO-3			1		2			3		3	2	1
CO-4			1		2			3		3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		

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1. Solving Numerical Problems	1 5	15
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent	**SC1**	**SC2**	**SC3**	
Subcomponent Type	**Term Test**	**Assignment -1**	**Assignment -2**	**100 Marks**
Maximum Marks	**50**	**25**	**25**	
CO -1				
CO -2				
CO				

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-3				
CO -4				
CO -5				
CO -6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

Essential Reading

1. Development Economics by Debraj Ray, Oxford University Press, 2009
2. Analytical Development Economics by Kaushik Basu, The Less Developed Economy Revisited, OUP (2000).
3. Growth and Development by AP. Thirlwal, 5th edition, MacMillan Press Ltd (1994).
4. Economic Development in the third world by M.P Todaro, London: Longman (1981).

10. Course Organization

Course Code	ENC206A		
Course Title	Development Economics		
Course Leader's Name		As per Timetable	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date			
Next Course Specifications Review Date			

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Course Specifications: Public Economics

Course Title	Public Economics
Course Code	ENE207A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to the basics of public economic theories. It with discussing the fiscal functions of the government. Next it will discuss the differences between public and private goods. Finally, it will introduce the concepts of taxation and implications of taxation on the economy as a whole.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1. Understand the nature and scope of public economics.
CO-2. Learn differences between public and private goods.
CO-3. Learn theories of taxation, viz. efficient taxation, optimal taxation etc.

4. Course Contents

Unit 1: Fiscal functions: An overview: Allocation functions; Distribution functions; Stabilization functions.
Unit 2: Public provision for social goods: Social goods and market failure; Provision for social goods; mixed goods; Merit goods.
Unit 3: Social goods: Meaning of efficiency; Efficient provision of private goods; Efficient provision of public goods; social goods allocation in the budget.
Unit 4: Introduction to taxation: Desirable characteristics of any tax system; framework for choosing among tax systems.
Unit 5: Tax incidence: Tax incidence in competitive markets; Tax incidence without perfect competition.

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Unit 6: Optimal Taxation: Two fallacies of optimal taxation; optimal and Pareto efficient taxation; Ramsey taxes; Deriving Ramsey taxes on commodities; Derivation of Ramsey formula for linear demand schedule.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO -1	PO -2	PO-3	PO -4	PO -5	PO -6	PO -7	PO-8	PO-9	PSO -1	PSO -2	PSO-3
CO -1	3		2			1				3	1	2
CO -2	3		2			1				3	1	2
CO -3	3		2			1				3	1	2
CO -4	3		2			1				3	1	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		35
1. Solving Numerical Problems	35	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	

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4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		
1. Case Study Presentation	00	00
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent	**SC1**	**SC2**	**SC3**	
Subcomponent Type	**Term Test**	**Assignment -1**	**Assignment -2**	**100 Marks**
Maximum Marks	**50**	**25**	**25**	
CO -1				
CO -2				
CO -3				
CO -4				
CO -5				
CO -6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

***9.* Course Resources**

Essential Reading

1. Public Finance - Musgrave and Musgrave
2. Economics of the Public Sector - Stiglitz and Rosengard

10. Course Organization

Course Code	ENE207A	
Course Title	Public Economics	
Course Leader's Name	As per Timetable	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date		
Next Course Specifications Review Date		

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SEMESTER 5

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Course Specifications: Resource and Environmental Economics

Course Title	**Resource and Environmental Economics**
Course Code	ENC301A
Course Type	Core Course
Department	Economics
Faculty	School of Social Sciences

11. *Course Summary*

This course is designed to equip the learners on various concepts, theories, methods and regulations in environmental economics. This course provides an ethical perspective to the study of environmental valuation and enables the learners to apply economic tools to solve environmental problems.

12. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

13. *Course Outcomes (COs)*

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

CO-1: Understand the various concepts and issues in Environmental economics
CO-2: Understand the rationale and methods of regulating the market towards sustainability
CO-3: Apply the economic tools to environmental problems
CO-4: Understand global urgency on protecting the environment

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14. *Course Contents*

Unit 1: Introduction to Environmental Economics

1. Nature, scope and history of environmental economics
2. Economy-Environment-Ecology inter-linkages
3. Material balance model

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4. Efficiency and competitive Markets, Market Failure- Public Goods and Externalities, pricing Public Goods and Public Bads
5. Property Rights, Coase Theorem
6. Pigovian fees- single polluter and multiple polluter

Unit 2: Environmental economics and Sustainable Development

1. Uncertainty, irreversibility, inter-temporal efficiency, inter-generational equity
2. Quality of Environment- air, water, soil, Depletion of resources- Hartwick Solow, Hotelling's Lemma
3. Environmental Justice- displacement, gender issues, poverty
4. Growth and Development debate- Sustainable Development, Green GDP
5. Tragedy of Commons
6. Environmental Kuznets Curve

Unit 3: Valuation of Environment

1. Valuation of Environmental Benefits, economic value of environment, Environmental demand theory
2. Methods for valuing environment- Cost Benefit analysis, Revealed Preference Methods-Hedonic Pricing method and Travel Cost Method
3. Stated Preference Methods- Contingent valuation, limitations

Unit 4: Regulation of Environment

1. Regulation Instruments- Command and control
2. Incentives in Environmental regulations, fees and permits
3. Carbon Trading
4. Asymmetric information, monitoring emissions and enforcement
5. Rationale for market solutions
6. Environmental impact assessment
7. Indian laws to protect environment- Carbon Tax

Unit 5: International and Interregional Competition and Environment

1. Income effect and demand for environmental quality, jurisdictional competition, international trade and environment, global bads, trans-boundary pollution, Circular Economy, The Three Rs
2. International Conventions

15. *Course Map (CO-PO-PSO Map)*

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1		3		2	3	1
CO-2	3		2			1		3		2	3	1
CO-3	3		2			1		3		2	3	1
CO-4	3		2			1		3		2	3	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

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16. *Course Teaching and Learning Methods*

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

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17. *Course Assessment and Reassessment*

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

18. *Achieving COs*

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

19. Course Resources

a. Essential Reading

1. Rabindra N Bhattacharya- Environmental Economics- an Indian Perspective, Oxford University Press
2. G K Kadekodi- Environmental Economics in Practice, Oxford University Press
3. Sankar Ulaganathan- Environmental Economics, Oxford University Press

20. *Course Organization*

Course Code	ENC301A		
Course Title	Resource and Environmental Economics		
Course Leader's Name		As per the Time Table	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date		4th July 2023	
Next Course Specifications Review Date			

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Course Specifications: Indian Economics

Course Title	Indian Economics
Course Code	ENC302A
Course Type	Core Course
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to various issues in Indian Economy. The course aims to explain nature, growth and challenges in various sectors of Indian economy including agriculture, industries, money and banking and foreign trade.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Know the basic characteristics of Indian Economy
CO-2: Understand the structural issues and challenges faced by the Indian Economy
CO-3: Know the recent policy developments in Indian Economy
CO-4: Understand the various sources of data on Indian economy and its analysis.

4. Course Contents

Unit 1: Structure of Indian Economy

1. Nature of Indian Economy- developing, mixed economy
2. Demographic issues- Demographic transition, India's population size and growth, demographic dividend, urbanization, migration.
3. Labour force growth, employment and unemployment- trends, structure, types of unemployment and estimates of unemployment.

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4. Poverty and income Distribution, concept of poverty line, incidence of poverty, poverty alleviation programmes, pattern of income distribution, causes of income inequalities, government policy measures.

Unit 2: National Income

1. Concept- methods of measurement of National Income in India, Trends in National Income and Per Capita Income, structural composition of national income, trends in occupational structure, trends in savings and investment in Indian Economy.

Unit 3: Issues in Indian Agriculture

1. Land reforms, trends agriculture production and productivity
2. Green Revolution-achievements and drawbacks
3. Agriculture finance and marketing-NABARD
4. Agriculture prices, agriculture subsidies and food security in India.

Unit 4: Industrial development in India

1. Industrial development during Planning period
2. Major industries in India, Small-scale and cottage industries, Private Sector and Public Sector Industries
3. Industrial Policy in India, disinvestment programme in India, industrial sickness in India
4. Labour relations, social security and Exit policy in India.

Unit 5: Money and Banking Sector in India

1. Price trends and inflation in India
2. Indian Money Market- organized and unorganised sectors
3. Commercial banking in India- banking structure, nationalization, reforms.
4. Reserve Bank of India- functions & role
5. Capital Market in India- structure, growth, reforms and regulation-SEBI.

Unit 6: India's Foreign Trade and Foreign Capital

1. Value, composition and direction of Foreign Trade in India
2. India's Balance of Payments: meaning, BoP situation and management of BoP.
   India's Trade Policy: Import and Export policy, Foreign Trade Policy- recent developments. Special Economic Zones in India, WTO and India- WTO agreements.
3. Foreign Capital and Aid: Components of foreign capital, Foreign Investment inflows, External borrowings
4. Exchange Rate regime and exchange rate management, issues of capital account convertibility, management of Foreign Exchange Reserves
5. Globalisation and its effect on trade, MNCs- growth, controlling mechanism- FERA and FEMA

Unit 7: Databases on Indian Economy

Introduction to databases on Indian Economy

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)	Programme Specific Outcomes (PSOs)

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1		1		2	3	1
CO-2	3		2			1		1		2	3	1
CO-3	3		2			1		1		2	3	1
CO-4	3		2			1		1		2	3	1

3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The

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procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Midterm exam	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

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9. Course Resources

a. Essential Reading

1. Misra and Puri. *Indian Economy*, Himalaya Publishing House
2. Ruddar Dutt and Sundaram. *Indian Economy*, S. Chand and Co.
3. Suresh Tendulkar. *Understanding Reforms*, Oxford University Press.
4. L M Bhole. *Financial Institutions and Markets- structure, growth and innovations*, Mc Graw Hill Education
5. RBI Website

10. Course Organization

Course Code	ENC302A	
Course Title	Indian Economics	
Course Leader's Name	Dr. Anantha Ramu M R	
Course Leader's Contact Details	**Phone:**	9481033885
	E-mail:	anantharamumr.ss@msruas.ac.in
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

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Course Specifications: International Trade

Course Title	International Trade
Course Code	ENC303A
Course Type	Core Course
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students to various theories, problems and policies related to International Trade. This course discusses prominent theories in International Trade and also the role of International Trade Organisations in regulation of international trade.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Know the basis of trade
CO-2: Understand the theories related gains from Trade and Trade Restrictions
CO-3: Understand the international equilibrium in trade
CO-4: Comprehend the neo classical theories of International Trade
CO-5: Learn the role of International Trade Organisations

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4. Course Contents

Unit 1: Basis of Trade

1. Arbitrage and Inter-industry trade, absolute and comparative advantages, regulation of externalities, basis of intra-industry trade

Unit 2: Gains from Trade (theorems)

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1. Equilibrium in Open Economy and gains from Trade- Production Possibility Curve and Community Indifference Curve
2. Classical Theories of comparative Advantage- Theory of Absolute difference in Cost, Theory of Comparative Difference in Costs, Refinement of Comparative Costs theory
3. Haberler's Theory of Opportunity Costs
4. Mill's Theory of Reciprocal Demand

Unit 3: International Equilibrium

1. Offer Curves- derivation, properties, elasticities
2. Trade Indifference Curve and Box Diagram

Unit 4: Neo Classical Trade Models

1. The Heckscher-Ohlin Theory
2. Samuelson's Factor- Price Equalisation Theorem
3. Factor Intensity Reversals- Stopler-Samuelson theorem, Rybczynski Theorem, Leontief Paradox

Unit 5: Theory of Trade Restrictions

1. Types tariffs, Effects of Tariff under Partial equilibrium, effects of Tariff under General Equilibrium,
2. Effects of a Tariff in a Large Country- Production and Consumption Effect, ToT effect
3. Optimum Tariff and Welfare- determination of Optimum Tariff, Optimum Tariff with Retaliation, Optimum Tariff Formula
4. Effects of Tariff on Income Distribution -Stopler-Samuelson Theorem, The Metzler Paradox, The Lerner Paradox. and Lerner Case, welfare effect and optimum effect, tariff retaliation, tariff and protection
5. Quantitative Restrictions- Import quotas and Voluntary Export Restraints, types of import quotas, effects of import quotas under partial equilibrium and general equilibrium, Equivalence of Tariffs and Quotas

Unit 6: Dumping

1. Types and objectives of dumping, price determination under dumping, effects of dumping

Unit 7: International Trade Organisations

1. GATT- objectives, provisions, criticisms
2. WTO- structure, objective, functions, agreement, TRIPs, TRIMs
3. SAARC- objectives, principles, provisions, trade and economic cooperation, critical appraisal
4. India's current trade agreements

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5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1
CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1

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CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Term Test	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

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9. Course Resources

a. Essential Reading

1. Krugman and Obstfeld- International Economics: Theory and Policy, Pearson Education
2. Salvatore- International Economics: Trade and Finance, Wiley publications

10. Course Organization

Course Code	ENC303A	
Course Title	International Trade	
Course Leader's Name	As per the Time Table	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

Course Specifications: Political Economy

Course Title	**Political Economy**
Course Code	ENE304A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course explores changes in the organisation of production, labour market institutions and corporate structure. It goes on to study the consequences of globalization, especially of financial flows, for the role of the state, economic performance, gender issues, environment, human welfare and development.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15

Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Know the historical development of the political economy
CO-2: Understand the Changing Dynamics of Capitalist Production, Organisational Form and Labour Process
CO-3: Understand the role of state in the era of globalization
CO-4: Understand changing role of finance in the era of globalization
CO-5: Analyse political economy from Social and Gender dimensions

4. Course Contents

Unit 1. Introduction and Historical Overview
Perspective on political economy with a historical overview: capitalist development in the pre-second world war period, the golden age and later.
Unit 2. Changing Dynamics of Capitalist Production, Organisational Form and Labour Process
Fordist and post-fordist production; changing dynamics of organisation of production, markets and labour process; the changing nature of job security and labour rights.
Unit 3. The State in the Era of Globalisation: Welfare, Development and Autonomy
Globalisation and the limits of the welfare state, development and state autonomy.
Unit 4. The Changing Role of Finance
The changing role of finance in capital accumulation and corporate structure; finance and globalisation - financialisation, financial liberalisation and financial crisis.
Unit 5. The Social Dimension
Globalisation and uneven development – growth, inequality and exclusion.
Unit 6. New Perspectives
Gender in work, accumulation and globalisation; issues in environment and sustainability; alternatives ahead.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1
CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1

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CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme

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Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Term Test	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

B. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

a. Essential Reading

1. Ghosh, Peu. Introduction to Political Economy, Sage Publications
2. Michel Beaud, A History of Capitalism, 1500-2000, trans. by Tom Dickman and Anny Lefebvre, New York: Monthly Review Press, 2001.
3. Ash Amin (ed.), Post-Fordism: A Reader, Blackwell, 1994.

10. Course Organization

Course Code	ENE304A	
Course Title	Political Economy	
Course Leader's Name	As per the Time Table	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

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Course Specifications: Industrial Economics

Course Title	**Industrial Economics**
Course Code	ENE305A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the learners to various theories of firm, market structure and important competition policies and regulation. This course will enable the learners to apply and analyse various concepts of economics to industrial sector.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100

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Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Learn the theory of firm
CO-2: Understand firm conduct and market structure
CO-3: Comprehend on industrial policy and regulations

4. Course Contents

Unit 1: Theory of the firm

1. Size and structure of firms: The technological view of the firm, The transaction costs-property rights approach, Investment specificity, incomplete contracts and vertical integration, Empirical evidence.
2. Separation of ownership and control: separation of ownership and control, managerial incentives, the limits to managerial discretion, foundations of the profit-maximisation hypothesis.

Unit 2: Firm conduct and market structure

1. Short-run price competition: the Bertrand model, Bertrand competition with capacity constraints, The Cournot model.
2. Dynamic price competition: Repeated interaction, Collusion and cartel stability, Theories of price wars, Empirical analysis of market power and collusive behaviour.
3. Entry deterrence and entry accommodation: First-mover advantages and the value of irreversible decisions, Strategies to deter entry, Strategic substitutability vs. complementarity, A taxonomy of business strategies, Predation.
4. Product differentiation and non-price competition: Horizontal product differentiation, Brand proliferation and entry deterrence, Vertical product differentiation, Markets with asymmetric information.
5. Price discrimination: First-degree, second-degree and third-degree price discrimination, Non-linear pricing, Tie-in sales.
6. Vertical restraints: efficiency explanations for vertical restraints, vertical and horizontal externalities, vertical restraints as instruments that restrict competition, empirical evidence.
7. The determinants of market structure: Theory of market structure in exogenous and endogenous sunk cost industries, Technology and market structure, Empirical evidence.

Unit-3: Competition policy and regulation

1. Competition and industrial policy: Competition policy in the EU, the USA, Japan and India, Current issues in competition policy, Industrial policy towards R&D.
2. Regulation: Regulation of firms with market power under symmetric information, Regulation under asymmetric information, Liberalisation and regulation, Empirical evidence.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1
CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1
CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00

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Total Duration in Hours	**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--

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12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

a. Essential Reading

1. Barthwal, R R. Industrial Economics-An introductory Textbook. New Age International Publishers.
2. Rapheal, Nisha. Industrial Economics: Text and Case Study. Regal Publications
3. Tirole, J. *The Theory of Industrial Organization.* Cambridge, MA: MIT Press.

10. Course Organization

Course Code	ENE305A	
Course Title	Industrial Economics	
Course Leader's Name	As per the Time Table	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

Course Specifications: Advanced Microeconomics

Course Title	**Advanced Microeconomics**
Course Code	ENE306A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course introduces fundamental concepts and topics developed in microeconomic theory. It will cover Theory of Distribution, Theory of General Equilibrium, Welfare Economics, Economics of Uncertainty, and Information Economics. The theoretical tools explained in these topics are essential in many different fields in economics.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Learn the theory of Distribuion
CO-2: Understand the elements of General Equilibrium
CO-3: Understand various theories in Welfare Economics
CO-4: Understand the measurement of risk and uncertainty
CO-5: Know the elements of information economics

4. Course Contents

Unit 1: Theory of Distribution

1. Neo-Classical theories, Marginal productivity theory of determination of factor prices, Factor shares and adding up problems.
2. Euler's theorem, Pricing of factors under imperfect competition, monopoly and bilateral monopoly.
3. Macro-distribution theories of Ricardo, Marx, Kaldor, Kalecki.

Unit 2: Theory of General Equilibriums

1. Introduction: partial equilibrium vis-à-vis general equilibrium approach.
2. Exposition of basic concepts.
3. An elementary general equilibrium model – the Robinson Crusoe economy.
4. Pure exchange economy – the Edgeworth Boxes, Pareto optimality, contract curve, core, Walras Law, Walras equilibrium.

Unit 3: Welfare Economics

1. First and second fundamental theorem of welfare economics (graphical exposition).
2. Interpersonal comparison and aggression problem, Public goods and externalities, Divergence between social and private welfare, compensation principle.
3. Pareto Optimality, Social choice and other recent schools, including Coase and Sen.
4. Measures of Individual Welfare: Consumer Surplus, Compensating variation and equivalent variation.

Unit 4: Economics of Uncertainty

1. Measures of risk - Domar-Musgrave index, Roy's safety index, Mean-Variance, Semi variance.

2. Mini-max regret.
3. Lotteries, preference relation over lotteries, N-M expected utility theory – basic axiom and representation theorem; violations of EU theory
4. Subjective probabilities
5. Risk aversion – Jensen's inequality.

Unit 5: Information Economics

1. Introduction.
2. The elements of the problem.
3. Types of Asymmetric information problems – moral hazard, adverse selection, signaling.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1
CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1
CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	

6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

Essential Reading

1. Varian, Hal R. (1992), Microeconomic Analysis, 3rd Edition, International Student Edition, W. W. Norton and Company.
2. Pindyck, Robert S. and Rubinfield, Daniel L. (1998), Microeconomics, Prentice Hall

10. Course Organization

Course Code	ENE306A	
Course Title	Advanced Microeconomics	
Course Leader's Name	As per the Time Table	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

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SEMESTER 6

Course Specifications: Corporate and International Finance

Course Title	**Corporate and International Finance**
Course Code	ENE308A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course aims at providing understanding of financial statements, working capital management, capital budgeting techniques, capital structure and financing of capital. In addition, the course covers international finance consisting Balance of Payments, exchange rate determination, global financial system and lessons to be learnt from global financial crisis.

***2.* Course Size and Credits:**

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Understand financial statements, working capital management and capital budgeting
CO-2: Comprehend financial patterns and capital structure
CO-3: Understand the concepts of Balance of Payments, exchange rate determination
CO-4: Know the International Monetary system and learn the lessons from recent financial crisis.

4. Course Contents

Unit 1: Introduction and Working Capital Management

7. Introduction to Financial Statements and Cash Flow, Financial Statements Analysis and Long-Term Planning
8. Working Capital Components: Leverage, Cash management, Inventory Management, Financing Current Assets – Regulation of Bank Finance

Unit 2: Capital Budgeting

1. Measures of Investment, Investment choice and Financing Decisions: Time Value of Money, Net Present Value, Internal Rate of Return, Discounted Payback Period, Cost of Capital, Selection of Criteria Risk, Return and Opportunity Cost of Capital Valuation of Bonds and Common Stock Scenario Testing and Sensitivity Analysis

Unit 3: Capital Structure & Financing of Long-Term Capital

1. Patterns of Financing: Internal Funds, Common Stock, Debt, Financial Markets/Institutions, Issue of securities, Venture Capital, Initial Public Offering, Security Sales and Auctions
2. Capital Structure: Planning, Choice Extended Probabilistic Analysis, Dividend Payout Policies, Share Valuation, Sources of Long-Term Capital, Debt Securities, Debt Policy and Leverage Risk Management
3. Financial Derivatives and Hedging Risk
4. Companies Act, 2013

Unit 4: Balance of Payments

1. Collection, reporting and presentation of BoP, An overview of sub-accounts in BoP
2. Elasticity and absorption approaches to the BoP
3. Automatic BoP adjustment mechanism, automatic mechanism with flexibility in prices, interest rates and income levels.

Unit 5: Exchange Rate Determination

1. Foreign exchange, Foreign exchange market, spot market, forwards and future markets
2. PPP theory of exchange rate determination and law of one price, Absolute and relative PPP, a generalized version of PPP, Balassa-Samuelson model; Uncovered interest rate parity, Monetary models of exchange rate determination,

Unit 6: Post-war International Monetary System

3. Bretton Woods system and the post-Bretton Woods era
4. Reforms of the international monetary system, Euro currency and Eurobond markets
5. Currency derivatives: futures, options and swaps
6. Introduction to Economic and monetary union in Europe
7. IMF and the World Bank

Unit 7: Crises and Lessons

1. International debt crisis: Background and origin of debt crisis, the Mexican moratorium
2. Currency crisis and the East Asian Financial Crisis: First, Second and Third generation models of currency crisis,
4. Global financial crisis

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5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1

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CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1
CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented

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in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Term Test	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

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9. Course Resources

Essential Reading

1. Brealey, R.A., Myers, S.C. and Allen, F. *Principles of Corporate Finance*, McGrow Hill.
2. Ross, Stephen, Westerfield, Randolph, Jaffe, Jaffrey. *Corporate Finance*, McGraw-Hill.
3. Berk, Jonathan, and DeMarzo, Peter. *Corporate Finance*, Pearson International
4. Salvatore.S, *International Economics*, Wiley.
5. Pilbeam, Keith. *International Finance*, Palgrave Macmillan.
6. Levi.D.M. *International Finance*, Routledge.

10. Course Organization

Course Code	ENE308A		
Course Title	Corporate and International Finance		
Course Leader's Name		As per the Time Table	
Course Leader's Contact Details		**Phone:**	
		E-mail:	
Course Specifications Approval Date		4th July 2023	
Next Course Specifications Review Date			

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Course Specifications: Advanced Macroeconomics

Course Title	**Advanced Macroeconomics**
Course Code	ENE309A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to equip the learners on advanced macroeconomic theories and concepts. This course enables the learners to understand rational expectation theories, real business cycles, micro foundations for macroeconomics, interest rate theories and monetary institutions and monetary policy.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Understand the Rational expectation theories and new classical macroeconomics
CO-2: Understand the theories of Real Business Cycle School and New Keynesian School
CO-3: Comprehend key interest rate theories
CO-4: Understand monetary institutions and monetary policy

4. Course Contents

Unit 1: Rational Expectations and new Classical Macroeconomics

1. The basic concepts, Post Keynesian developments.
2. Inflationary gap, Demand Pull versus Cost Push inflation, the Phillips curve and Lucas Supply equation

Unit 2: Real Business Cycle School

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1. Real Business Cycle School and inter temporal substitution of labour, Real Business Cycle theory, technology shocks, neutrality of money and flexibility of wages and prices, Real Business cycle view on great depression.

Unit 3: Micro Foundations of real and nominal rigidities

1. New Keynesian School: Imperfect competition and price setting, Real rigidity, Co-ordination failure models, Real Non Walrasian Theories, Small Menu Cost model and Staggering of prices, implicit wage contract theory, efficiency wage theory- Insider- Outsider model.

Unit 4: Theories of the Interest Rate

1. Real and monetary theories of the interest rate: Keynesian theory, Wicksellian theory, Fisher's theory, Hicksian theory Credit market imperfections Adverse selection and moral hazard.

Unit 5: Monetary Institutions & Monetary Policy

1. Monetary transmission mechanism and targeting Inflation
2. Money growth and interest rates: Interest rate rules, Taylor rule, Rules versus discretion, Central Bank Autonomy, Dynamic inconsistency of monetary policy credibility and reputation, Co-ordination of fiscal and monetary policy.

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				3	2	1
CO-2	3		2			1				3	2	1
CO-3	3		2			1				3	2	1
CO-4	3		2			1				3	2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		

1. Course Laboratory	00	00
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

9. Course Resources

a. Essential Reading

1. Dornbusch & Fischer. Macroeconomics. McGraw Hill. 11th edition, 2010.
2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
3. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
4. Ackley Gardner. Macroeconomics. Macmillan.
5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
6. Romer, D., Advanced Macroeconomics, second edition, McGraw-Hill, 2001

10. Course Organization

Course Code	ENE309A		
Course Title	Advanced Macroeconomics		
Course Leader's Name		As per the Time Table	
		Phone:	

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Course Leader's Contact Details	E-mail:	
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

Course Specifications: Health Economics

Course Title	**Health Economics**
Course Code	ENE310A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to expose the students towards application and analysis of various economic concepts to Health sector. This course highlights the scope of health economics, demand and supply for health, economics analysis and evaluation of health issues and Health system and policies in India.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Apply the economic concepts to analyse health issues
CO-2: Understand the demand and supply of health
CO-3: Measure health outcomes using various methods and evaluate health care
CO-4: Understand the health system and health policies in India

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4. Course Contents

Unit 1: Introduction

1. Definition of Health Economics, Scope, Importance and need of Health Economics.

Unit 2: Application of Economics to Health Issues

1. Market failure, public policy, equity and efficiency,
2. Health economics and population dynamics: demographic aging, disability and malnutrition.

Unit 3: Demand and Supply of Health

1. Demand for Health Care, Grossman Model, and Disparities in Health Care
2. Measuring Health Outcomes, Quality Adjusted Life Years, Disability Adjusted Life Years, Economic burden of disease
3. Health infrastructure: Private and Public

Unit 4: Economic Evaluation of Health Care

1. Types of analysis: Cost-effectiveness, Cost-utility and Cost-minimization, Cost Benefit Analysis, Willingness to pay thresholds.

Unit 5: Health Sector in India

1. Health outcome
2. Health systems
3. Health financing- Public Sector and Private Sector (Household expenditure, CSR funding, NPISH)
4. Health policy in India- recent developments

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				2	3	1
CO-2	3		2			1				2	3	1
CO-3	3		2			1				2	3	1
CO-4	3		2			1				2	3	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	

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Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		0 0
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponent ►	**SC1**	**SC2**	**SC3**	
Subcomponent Type ►	**Term Test**	**Assignment -1**	**Assignment-2**	**100 Marks**
Maximum Marks ►	**50**	**25**	**25**	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				

The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

***9.* Course Resources**

a. Essential Reading

1. Bhattacharya, Jay, Timothy Hyde, and Peter Tu. *Health Economics*, Palgrave Macmillan.
2. Morris, S., Devlin N., Parkin. D., Spencer, A. *Economic Analysis in Health Care*, Wiley.
3. Folland, Shermand; Goodman, Allen and Stano Miron. The Economics of Health and Health Care, Taylor & Francis

10. Course Organization

Course Code	ENE310A		
Course Title	Health Economics		
Course Leader's Name		As per the Time Table	
Course Leader's Contact Details		**Phone:**	
		E-mail:	

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Course Specifications Approval Date	4th July 2023
Next Course Specifications Review Date	

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Course Specifications: Economics of Education

Course Title	**Economics of Education**
Course Code	ENE311A
Course Type	Discipline Specific Elective
Department	Economics
Faculty	School of Social Sciences

1. Course Summary

This course is designed to enable the learners to understand the theories of human capital, demand and supply for education, linkages between education and economic growth, various ways of financing education and recent policy developments in India.

2. Course Size and Credits:

Number of Credits	05
Credit Structure (Lecture: Tutorial: Practical)	4:1:0
Total Hours of Interaction	75
Number of Weeks in a Semester	15
Department Responsible	Economics
Total Course Marks	100
Pass Criterion	As per the Academic Regulations
Attendance Requirement	As per the Academic Regulations

3. Course Outcomes (COs)

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

CO-1: Know the basic theories of Human Capital
CO-2: Understand the factors behind demand for and supply of education and approaches to man power planning
CO-3: Understand various sources of financing education
CO-4: Know the recent policy developments in Indian Education System

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4. Course Contents

Unit 1: Theory of Human Capital Education and Human Capital Formation

1. Concept of human capital, forms of human capital
2. Human capital and economics growth
3. Human Capital and Demographic Dividend
4. Measures of human capital, limitations of human capital approach
5. Education as an economic good
6. Consumption and investment aspects of education, private and social benefit of education
7. Contribution of education to economic development
8. The methods of Schultz and education and human values

Unit 2: Demand for and Supply of Education

1. Education and productivity, private and social demand for education
2. Investment in education, rate of return analysis, private and social rates of return, limitations of rate of return approach, rate of return and earnings distribution, Equity aspects.
3. Components of educational supply, private and public facilities
4. Pattern of organization and operation of education industry

Unit 3: Education and Manpower Planning

1. Importance of educational and manpower planning in development and less developed Countries
2. The operation of markets for unskilled and skilled labour
3. Approaches to educational and manpower planning

Unit 4: Financing of Education

1. Private resources in education and their limitations
2. Rationale behind public involvement in education and forms of public financing of education-subsidization, cross subsidization, cost-recovery and cost sharing.

Unit 5: Database on Education and Key Education Policies in India

1. Databases on Education
2. Right to Education Act
3. National Education Policy, 2020

5. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)									Programme Specific Outcomes (PSOs)		
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PSO-1	PSO-2	PSO-3
CO-1	3		2			1				2	3	1
CO-2	3		2			1				2	3	1
CO-3	3		2			1				2	3	1
CO-4	3		2			1				2	3	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution												

Approved by the 26th Academic Council Meeting held in July 2022

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		75
Demonstrations		00
1. Demonstration using Videos	00	
2. Demonstration using Physical Models / Systems	00	
3. Demonstration on a Computer	00	
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		00
1. Course Laboratory	00	
2. Computer Laboratory	00	
3. Engineering Workshop / Course/Workshop / Kitchen	00	
4. Clinical Laboratory	00	
5. Hospital	00	
6. Model Studio	00	
Others		00
1. Case Study Presentation	00	
2. Guest Lecture	00	
3. Industry / Field Visit	00	
4. Brain Storming Sessions	00	
5. Group Discussions	00	
6. Discussing Possible Innovations	00	
Term Tests, Laboratory Examination/Written Examination, Presentations		00
Total Duration in Hours		**75**

7. Course Assessment and Reassessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the B.Sc. Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component(CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponent ►	SC1	SC2	SC3	
Subcomponent Type ►	Midterm exam	Assignment -1	Assignment-2	100 Marks
Maximum Marks ►	50	25	25	
CO-1				
CO-2				
CO-3				
CO-4				
CO-5				
CO-6				
The details of SC1, SC2 or SC3 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at thebeginning of the semester.
Course reassessment policies are presented in the Academic Regulations document.

8. Achieving COs

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S. No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Classroom lectures
2.	Understanding	Classroom lectures, Self-study
3.	Critical Skills	Assignment
4.	Analytical Skills	Assignment
5.	Problem Solving Skills	Assignment, Examination
6.	Practical Skills	Assignment
7.	Group Work	--
8.	Self-Learning	Self-study
9.	Written Communication Skills	Assignment, Examination
10.	Verbal Communication Skills	--
11.	Presentation Skills	--
12.	Behavioral Skills	--
13.	Information Management	Assignment
14.	Personal Management	--
15.	Leadership Skills	--

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9. Course Resources

a. Essential Reading

1. Mark Blaug, An Introduction to the Economics of Education, Penguin Publications
2. Theodore W. Schultz, Investment in Human Capital, The Free Press.
3. Tilak J B G, The Economics of Inequality in Education, Sage Publications
4. Natarajan S, An Introduction to Economics of Education, Sterling Publications

10. Course Organization

Course Code	ENE311A	
Course Title	Economics of Education	
Course Leader's Name	As per the Time Table	
Course Leader's Contact Details	**Phone:**	
	E-mail:	
Course Specifications Approval Date	4th July 2023	
Next Course Specifications Review Date		

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