SEMESTER- III			
Allied -III	MATHEMATICAL METHODS- I		
Course Code: 21UECA31	Hours / week :4	Hrs / Sem.: 60	Credits :4

Objectives:

- To develop the technical skills of students and faculty, together engaging in research,teaching, and learning
- To get an advanced knowledge in diverse areas of mathematics
- To discover, mentor, and nurture mathematically inclined students, and provide them a supportive environment that fosters intellectual growth.

Course Outcome:

CO No.	Upon completion of this course, students will be able to	PSO's Addressed	CL
CO - 1	know and apply the skills of commercial arithmetic in business life.	2,4, 7	Un
CO - 2	apply the basic concepts of equations in economics.	5,6	Ap
CO - 3	acquire knowledge about the linkage between mathematical techniques and economics.	5, 6	Ap
CO - 4	use knowledge of content and mathematical procedures to solve problems and make connections between the different areas of mathematics.	5, 7	Un
CO - 5	Demonstrate the use of mathematical reasoning by justifying and generalizing patterns and Relationships	4,5	Un
CO - 6	Apply the Fundamental Theorem of Analytical Geometry	2,5,6	Ap
CO - 7	Explain and apply basic concepts of sets,	4	U

SEMESTER- III			
Allied - III	**MATHEMATICAL METHODS**- I		
Course Code: 21UECA31	**Hours / week :4**	**Hrs / Sem.: 60**	**Credits :4**

UNIT-I: Set Theory 10 Hrs

Meaning of Mathematical Methods in Economics-Importance - Functions and their Properties- Notations of Set - Types of set - Venn diagram - Laws of Set - Operations in Set -Application in Economics.

UNIT-II: Straight Line 15 Hrs

Slope – Intercept - Equations of Straight Line - Parallel Lines - Perpendicular lines - Point of intersection of two lines - Application of straight lines in Economics: Supply line - Demand line - Determinants of equilibrium price and quantity and elasticity of demand

UNIT-III: Differentiation 15 Hrs

Process and Rules of Differentiation - Differentiation in polynomials x^n, $(ax+b)^2$; $logx$, e^x, differential coefficient of sum, difference, product, quotient and power - Successive differentiation - Partial derivative - Given $U= f(x,y)$ and $U= f(x,y,z)$ - Higher order partial derivatives – Maxima and Minima with single variable.

UNIT-IV: Application of Differentiation in Economics 10 Hrs

Marginal utility, cost and revenue curve applications - Marginal Revenue (MR) and Marginal Cost (MC) –Point of Inflection - Revenue maximization and Cost minimization.

UNIT-V: Integral Calculus and its Applications in Economics 10 Hrs

Rules of Integration – Definite& Indefinite integrals – Application in Economics – Total Revenue and Cost Concepts, Consumer's surplus and Producer's surplus.

Text Book:

Dr.M. Manoharan, Dr. C. Elango & Prof. K.L. Eswaran. *Business Mathematics.* Tamil Nadu:Palani Paramount Publications. 4th edition 2018

Books for Reference:

1. S.C. Aggarwal R.K.Rana& Leena Gupta. *Mathematics for Economists.* Haryana: V.K.GlobalPublications Pvt Ltd.1st edition 2022

2. Dr. R.Veerachamy. *Quantitative Methods for Economists*. New Delhi: New Age International (P) Ltd. 2nd edition 2018

3.M.B.K. Moorthy & A. Manikandan. *Advanced Mathematical Methods.* Chennai: Yes DeePublishing Pvt Ltd. 1st edition 2017

4. Dr. S. Sivaiah. *Applied Mathematical Methods*. Chennai: Laxmi Publications. 2ndedition 2013

4. Bhaskar Dasgupta. *Applied Mathematical Methods*. Chennai: Pearson Education India.1stedition 2006

SEMESTER- IV			
Allied -IV	**MATHEMATICAL METHODS**- II		
Course Code: 21UECA41	**Hours / week :4**	**Hrs / Sem.: 60**	**Credits :4**

Objectives:

- To mould the students to acquire skills required for strengthening Mathematics.
- Provide platform to acquire abilities to evaluate problems using analytical/ numerical/graphical techniques.
- Provide a back ground for relating mathematical techniques to solve real life problems.

Course Outcome:

CO No.	Upon completion of this course, students will be able to	PSO's Addressed	CL
CO - 1	Understand the foundations of mathematics	4	Un
CO - 2	Use equations, formulae, and mathematical expressions and relationships in a variety of contexts.	2,4,5	Un
CO - 3	Analyse and demonstrate mathematical skills required in mathematically intensive areas in Economics and business.	4,57	An
CO - 4	Apply the knowledge in mathematics(Matrices, Calculus)in solving business problems.	4,6	Ap
CO - 5	acquire an introduction to apply a range of mathematical techniques to economic problems.	5,6	Ap
CO - 6	learn and understand the application of integration in economics.	1,4	Un
CO - 7	acquire lifelong skills to understand current economics and to investigate economic models using mathematical techniques.	1,4,6	Un,Ap

SEMESTER- IV			
Allied -IV	**MATHEMATICAL METHODS**- II		
Course Code: 21UECA41	**Hours / week :4**	**Hrs / Sem.: 60**	**Credits :4**

UNIT-I: Ratio, Proportion, Relations and Functions   10 Hrs

Ratio – Proportion – Relations - Progression – Arithmetic progression – Geometric progression, Functions – types of functions – Application in Economics

UNIT-II: Matrix – I   10 Hrs

Matrix - Meaning and types - Operation of matrix: addition, subtraction, multiplication, division – Determinant – Properties of determinant

UNIT-III: Matrix – II   15 Hrs

Rank of matrix - trace of matrix - inverse: properties of inverse – solution to linear equations - Cramer's rule – Inverse method – Applications in Economics: input - output analysis (introduction and concepts alone)

UNIT-IV: Linear Programming   10 Hrs

Meaning - Basic concepts – Graphical solution to linear programming problem (onlytwo variables) – Dual Method.

UNIT-V: Introduction to Game Theory   15 Hrs

Meaning – Concepts – Significance – Types: Pure and Mixed Strategy games – Applications and Limitations of game theory

Text Book:

Sundaresan V. and S.D. Jeyseelan. *An Introduction to Business Mathematics*. New Delhi:Sulthan chand (G/L) & Company Ltd. Revised edition 2018

Books for Reference:

1. T.R. Jain & SC. Aggarwal. *Mathematical Methods for Economic*s. Haryana: V.K.GlobalPublications Pvt., Ltd., India. 1st edition 2021

2. Dr. Dipjyoti Sarma & Romen Kalita. *Mathematical Methods*. Madhya Pradesh: MahaveerPublications. 1st edition 2020.

3. Alpha C. Chiang & Kevin Wainright. *Fundamental Methods of Mathematical Economics*.U.K: McGraw Hill Publications. 4th edition 2013.

4. D. Bose, *An Introduction to Mathematical Methods*. New Delhi: Himalaya PublishingHouse. 1st edition2007.

	SEMESTER- III			
Non-Major Elective Economics for Competitive Examinations – I				
Course Code: 21UECN31	**Hours / week :2**		**Hrs / Semester: 30**	**Credits :2**

Objectives:

- To initiate the students to understand the key concepts of economics.
- To prompt students to have economic way of thinking.
- To induce critical thinking skills within the contest of subject matter of economics.

CO No.	Upon completion of this course, students will be able to	PSO's addressed	CL
CO 1	describe and illustrate basic economic concepts of scarcity and choice.	1, 2, 4	Ap
CO 2	understand the concepts used, methods to measure and difficulties encountered in the calculation of National Income	2, 4	Un
CO 3	understand the concept of economic growth and development	2, 7	Un
CO 4	illustrate how economics can be used to create or analyse alternative approaches to promote development.	4, 5, 7	Cr
CO 5	analyse both the proximate and deeper factors that trap people in poverty or assist them to escape poverty	4, 6, 7	Ap
CO 6	Identify and differentiate between the different types of unemployment	1, 4,7	An

SEMESTER- III
Non-Major Elective   Economics for Competitive Examinations – I

Course Code: 21UECN31	**Hours / week :2**	**Hrs / Semester: 30**	**Credits :2**

UNIT I - Micro Economics   **7 Hrs**

     Definition of Economics – Adam Smith- Alfred Marshall, Lionel Robbins, Paul Samuelson

-Basic Concept in Economics - Micro Economics- Meaning – Importance and Uses of MicroEconomics – Macro Economics – Meaning – Difference between Micro and Macro Economics.

UNIT II - Macro Economics   **7 Hrs**

     Meaning- Definition – Basic concepts of National Income – Gross National Product – NetNational Product – Personal Income – Per- Capita Income – Methods of Calculation of National Income – Problems of Calculation.

UNIT III- Economic Growth and Economic Development   **6 Hrs**

     Meaning of Economic Growth – Meaning of Economic Development – Difference between Development and Growth – Determinants of Economic Development and Economic Growth

UNIT IV – Poverty   **5 Hrs**

     Meaning – Definition – Causes of Poverty –Absolute and Relative Poverty – Poverty Eradication Programmes.

UNIT V – Unemployment   **5 Hrs**

     Meaning – Causes of Unemployment – Kinds of Unemployment – Employment guarantee programmes.

Text Book: Dr. S. Sankaran. *Micro Economics*. Tamil Nadu: Margham Publications. 1st edition2018

Books for Reference:

1. Dr.D. Amutha. *Economics for UGC Net/Set Examinations*. New Delhi: ManglamPublications. 1st edition 2021.
2. Dr. D. Rathi. *Micro Economics*. Unites States: Lulu Publication. 1st edition 2021.
3. T.R. Jain & V. K. Ohri. *Fundamentals of Economics*. Haryana: VK Global Publications PvtLtd. 1st edition 2020.
4. M.L. Jhingan. *Micro Economic Theory*. New Delhi: Vrinda Publication Pvt. Ltd. 7th edition2012.

	SEMESTER- IV			
Non-Major Elective Economics for Competitive Examinations – II				
Course Code: 21UECN41	**Hours / week :2**		**Hrs / Semester: 30**	**Credits :2**

Objectives:

- This course is designed to make the undergraduate students of other disciplines aware of the basic ideas and concepts in economics.
- To make students understand economic ideas and its implications in real time life situation.

Course Outcomes

CO No.	Upon completion of this course, students will be able to	PSO's addressed	CL
CO 1	Explain the types of public debt and how debt is repaid	2,4, 6	Un
CO 2	Describe the process of credit creation of a commercial bank, describe the balance sheet of a commercial bank, explain the functions of commercial bank	2,4	An
CO 3	Explain the main objective of monetary policy in under developed countries	4,5, 6	An
CO 4	Explain the functions and constituents of financial system, explain money market, capital market and stock market	1,4,5	An
CO 5	Explain the different concepts of terms of trade	4,7	An
CO 6	Explain the structure of BOP, disequilibrium in BOP, causes of disequilibrium	4, 5, 7	Ap

SEMESTER- IV			
Non-Major Elective	**Economics for Competitive Examinations – II**		
Course Code: 21UECN41	**Hours / week :2**	**Hrs / Semester: 30**	**Credits :2**

UNIT I- Public Finance **7 Hrs**

Meaning – Definition – Scope of Public Finance – Public Revenue – Public Expenditure -Causes of increasing Public expenditure in India-Union Budget and its Importance.

UNIT II - Reserve Bank of India **7 Hrs**

Origin of Reserve Bank of India – Functions of Reserve Bank of India – Monetary Policy -Control of Credit – Relationship between RBI and Commercial Banks.

UNIT III -Inflation& Deflation **5 Hrs**

Meaning - Definition – Types – Causes and Effects of Inflation – Controlling Measures -Deflation – Effects of Deflation

UNIT IV - Centre-State Financial Relations **5 Hrs**

Decentralization of power between centre and state-Centre-State Financial relations–Panchayat Raj System and its Importance- 73rd and 74th Amendments

UNIT V - International Trade **6 Hrs**

Meaning - Definition – Difference between Internal and External Trade – Balance ofPayment –Functions of WTO and IMF

Text Book:

H.L.Bhatia. *Public Finance*. New Delhi: Vikas Publishing House Pvt, Ltd. 30th edition, 2020.

Books for Reference:
1. Dominick Salvatore. *International Economics*. United States: Wiley Publisher, 13th edition2021.
2. M.L.Jhingan. *International Economics*. New Delhi: Vrinda Publications Pvt. Ltd. 7thedition 2020.
3. Harvey Rosen. *Public Finance*. UK: McGraw Hill Education. 8th edition 2012.
4. R.Cauvery, N. Kruparani, U.K. Sudha Nayak & A. Manimekalai. *Monetary Economics.*
   New Delhi: S. Chand & Co Ltd. 2nd Revised edition 2008.

	SEMESTER- III			
Core Skill Based	**TOURISM ECONOMICS**- I			
Course Code: 21UECS31	**Hours / week :4**	**Hrs / Sem.: 60**		**Credits :4**

Objectives:
- To understand the impact and challenges in the tourism industry.
- Understand the importance of tourism in the service industry.
- Understand the place of tourism in the service industry.

Course Outcomes:

CO No.	Upon completion of this course, students will be able to	PSO's addressed	CL
CO - 1	understand the nature of tourism and explore the reasons for the rapid growth of tourism.	2, 5	Un
CO - 2	assert and apply the method to develop an ideal itinerary and function of tour managers.	4,6	Ap
CO - 3	plan, lead and organize the effective and efficient operations through tourism formalities	2, 5, 6	Cr
CO - 4	view how the travel motivators promote social tourism, apply the concept to explore the demand, factors influencing tourism	5,6	Ap
CO - 5	Better understanding of Travel and Tourism Industry	4,5	Un
CO - 6	Identify and assess relationships and networks relative to building tourism capacity.	4, 6	Ap
CO - 7	Understand the place of tourism in the service industry.	2,4,7	Un

SEMESTER- III			
Core Skill Based	**TOURISM ECONOMICS**- I		
Course Code: 21UECS31	**Hours / week :4**	**Hrs / Sem.: 60**	**Credits :4**

UNIT-I: Basic Concepts of Tourism   **10 Hrs**

Meaning- Definition - Concepts and Types of Tourism - Tourism and economic development - Importance of tourism - Sustainable Tourism

UNIT-II: Tourism Product and Tourism Marketing   **10 Hrs**

Tourism products: Attractions, Availability, Accessibility and Amenities - Tourism Marketing – Various types of tourism marketing in India - Impact of Information Technologyin tourism development.

UNIT-III: Tourism Services   **10 Hrs**

Hotels - Motels - Resorts - Boating Clubs - Conducted /Organized Tours - Package Tour - Insurance - Guides - Tour Operators - Tour Promoters - Medical Tourism and its importance.

UNIT-IV: Performance of Tourism   **15 Hrs**

Tourism status in global and national -Socio, Economic, Cultural and Political Impactsof tourism development in India - Programmes in Tourism Development - Infrastructure Development Programme – Integrated Development of Tourism Circuits, Product infrastructure and Destination Development

UNIT-V: Tourism Organizations   **15 Hrs**

Role and Functions: United Nations World Tourism Organizations (WTO), Pacific Asia Travel Association (PATA), World Tourism and Travel Council (WTTC), International Hotel Association (IHA), Ministry of Tourism, Government of India, Indian Tourism Development Corporation (ITDC) and Federation of Hotel and Restaurants Association of India (FHRAI)

Text Book: Sunetra Roday, Archana Biwal & Vandana Joshi. *Tourism: Operations andManagement*. USA: Oxford University Press. Illustrated edition 2009

Books for Reference:

1. D. Leslie & J. Holland. *Tour operators & Operations: Development, Management andResponsibility.* U.K: CABI Publishers. 1st edition 2017.

2. Geetanjali. *Tourism Policy and Planning*. Jaipur: ABD Publishers. 1st edition 2010.

3. Manish Ratti. *Tourism Planning and Development*. New Delhi: Rajat Publications. 1stedition, 2008.

4. R. Shantha Kumar,. *Facts on Tourism*. Chennai: Shantha Publishers. 1stedition 1996.

	SEMESTER- IV		
Core Skill Based	**TOURISM ECONOMICS**- II		
Course Code: 21UECS41	**Hours / week :4**	**Hrs / Sem.: 60**	**Credits :4**

Objectives:

- Learn about sustainable tourism development for inclusive economic development.
- Understand the importance of Tourism sector and having integrity to achieve economic development through tourism.

Course Outcome:

CO No.	Upon completion of this course, students will be able to	PSO's Addressed	CL
CO - 1	identify and evaluate the elements of the tourism system and its interaction with the environment.	2,4	Ev
CO - 2	recognize and raise awareness for moral issues and dilemmas in tourism.	4, 5	An
CO - 3	provide information about tour packages	4,5	Un
CO - 4	assert and apply the method to develop an ideal itinerary and function of tour managers.	1, 7	Ap
CO - 5	understand the importance of transport and communication in travel tourism and hospitality industry.	2,4,5	Un
CO - 6	create an awareness on the economic impact generated by tourism.	2,4	Cr

SEMESTER- IV			
Core Skill Based	**Tourism Economics- II**		
Course Code: 21UECS41	**Hours / week :4**	**Hrs / Sem.: 60**	**Credits :4**

UNIT-I: Travel Agency   10 Hrs

Travel Agents, Tour operators, Function of a travel agent – Travel information, Ticketing,Tour packages, and Type of Package, Tours and excursion -Travel agency commission How to set up a travel agency-Modern mobile application towards in Tourism.

UNIT-II: Personality Developments Of Travel Agent, Tour Operator, Guide 10 Hrs

Introduction: Meaning of Personality, Personality Factors- externa internal. Effective or winning personality, developing a selling personality

UNIT-III: Guiding Concept   15 Hrs

Meaning, Concepts &Types of Guides: Conceptual meaning of Tourist Guide, duties andresponsibilities. How guides are appointed in tour.

UNIT-IV: Tourism Development   10 Hrs

Development of tourism in India - New Policy on Tourism Management strategy- Globaland Indian status of Tourism Industry - International Agencies.

UNIT-V: Indian Art & Architecture   15 Hrs

Indian Art and Sculptures, Archaeological sites – Monuments – Ancient Temples of India -Forts - Palaces and Museums – Buddhist heritage sites of India, Islamic Art & Architecture -UNESCO, World Heritage Sites in India, conservation & Management.

Text Book: A.K.Bhatia, Tourism Development-Principles & Practices, 4th Revised Edition,Sterling Publishers Pvt., Ltd, Uttar Pradesh, 2020.

Books for Reference:
1. S. Subramania Pillai. *Tourism in Tamil Nadu- Growth and Development*. India: MJPPublishers. 1st edition 2021.
2. Rajat Gupta, Nishant Singh, Ishita Kirar& Mahesh Kumar Bairwa. *Hospitality andTourism*. New Delhi: Vikas Publishing House Pvt, Ltd. 1st edition 2015.
3. Satish Chandra Nigam,. *Eco Tourism and Sustainable Development.* New Delhi: RajatPublications. 1st edition 2008.
4. Biswanath Ghosh. *Tourism & Travel Management.* New Delhi: Vikas Publishing HousePvt, Ltd. 2nd edition 2000.

	SEMESTER- III	
Self-Study / On-Line Course/ Internship (Compulsory) Salesmanship		
Course Code: 21UECSS1	**Credits :2**	

Objectives:
- To understand the concept of psychology of selling
- Able to demonstrate the ability to analyze the key ethical issues involved in selling

Course Outcomes

CO No	Upon completion of this course, students will be able to	PSO's addressed	CL
CO 1	define salesmanship and evaluate the individual qualities a salesperson must process to succeed in building long-term customer relationships	1, 2	Un
CO 2	understand and relate selling with the Principle of Contingency Benefits.	2, 4	Un
CO 3	identify specific techniques involved in selling, i.e. prospecting, planning and making a sales presentation, negotiating buyer resistance, closing a sale, organizing a territory and managing time.	1, 4, 6	Cr
CO 4	understand the importance of building partnering relationships with potential customers.	2, 4	Un
CO 5	examine the ethical and legal issues in selling.	4	Ev
CO 6	demonstrate the ability to identify, analyze, and evaluate the four objectives of an effective sales approach	2, 4, 5, 6	An

SEMESTER- III
Self-Study / On-Line Course/ Internship (Compulsory) Salesmanship

Course Code: 21UECSS1	Credits :2

UNIT I – Salesmanship

Salesmanship – Definition, Features, Origin and Development of salesmanship – Creative and competitive salesmanship – Is salesmanship a science, art or a profession?

UNIT II- Fundamentals of Selling

The sales personality – Important traits – Physical, Mental, Social and Character traits – Improving the personality

UNIT III- Sales Organization

Organization of sales Department: Definition, Objectives, Functions and Types- SalesRoutine – Control of Sales Operations

UNIT IV - Sales Training and Remuneration

The selection procedure – Types of training – Training objectives – Remuneration ofsalesmen – Methods – Allocation of Territories and sales conference

UNIT V -Buying Motives and Sales Talk

Important buying motives – Types of salesmen – Sales Talk – Sales Resistance – Closingthe sales.

Text Book:

Dr. D. Rathi. *Salesmanship, Selling Process and Sales Promotion*. USA: Lulu Publication.

1st edition 2019

Books for Reference:

1. Manju Tanwar& Dr. PoojaGoel, *Personal Selling and Salesmanship*. New Delhi: GalgotiaPublishing Company. 1st edition 2021.

2. P.Saravanavel. *Advertising and Salesmanship*. Tamil Nadu: Margham Publications. 2ndEdition 2012.

3. Mahendra Mohan. *Advertising Management*. New Delhi: Tata Mc. Craw Hill. Twenty thirdreprint edition 2006.

4. Pooja Jain & Dr. NehaSinghal. *Principles of Marketing*. US: Cengage Learning IndiaPublisher. 1st edition 2019.

	SEMESTER-IV	
Self-Study paper (Optional) Economics of Advertising		
Course Code : 21UECSS2	**Credit : 2**	

Objectives:

- The course helps to develop an understanding on the various aspects Advertising whichIncludes its objectives, classification, creative aspect of advertisements
- Explains the role of advertisements in the economy and society, functions of theadvertising agency and department, media strategies.

Course Outcomes

CO No.	Upon completion of this course, students will be able to	PSO addressed	C L
CO 1	understand what advertising is and its role in advertising and brand promotion and the economic effects of advertising.	1, 2, 4	Un
CO 2	create advertisement copy and appreciate the growth of modern advertising	4, 7	Cr
CO 3	be able to identify, analyze, and understand the advertising environment	1, 4	An
CO 4	prepare the advertising message and fully integrate the creative process.	6, 8	Cr
CO 5	understand the importance of placing the message in conventional and "new" media.	2, 4	Ev
CO 6	know the importance of budget and analyse the factors affecting budget.	4, 6, 8	An

SEMESTER- IV
Self-Study paper (Optional)   Economics of Advertising

Course Code : 21UECSS1	Credit : 2

UNIT I -Introduction

Introduction – Meaning, Definition, Features and Importance of advertising – Types ofadvertising

UNIT II - Advertising Copy

Advertising copy – Qualities of good advertising copy – Elements of advertising copy,Evaluation of advertising effectiveness – Methods of Testing – Advertising Effectiveness

UNIT III - Advertising Media

Advertising Media – Print Media –Outdoor Media – Electronic Media.

UNIT IV -Advertising Budget

Advertising Budget – Methods of Budgeting – Importance and factors affectingadvertising Budget

UNIT V -Advertising Agency

Advertising Agency – Types and structure of advertising agency – Functions, Selectionand remuneration of advertising agency

Text Book:

K.Pazhani & S.Jesi. *Advertising*. Nagercoil: J.P.Publishers. 1st edition 2001

Books for Reference:

1. Belch and Belch. *Advertising and Promotion.* Noida: Tata McGraw Hill. Co. 12th edition2021.
2. Sharma, Kavita. *Advertising: Planning and Decision Making*. New Delhi: TaxmannPublication Pvt. Ltd. 1st 2011.
3. Rajeev Batra, John. G. Myers & David. A.Aaker. *Advertising Management.* New Delhi:Pearson India Publication. 5th edition 2002.
4. Burnett, Wells, and Moriarty. *Advertising: Principles and Practice.* New Delhi: AneBooks Pvt Ltd. 6th edition 2003.