

College of Excellence, 2023 – 4<sup>th</sup> Rank Autonomous and Affiliated to Bharathiar University. Accredited with 'A++' grade by NAAC (4<sup>th</sup> cycle) Peelamedu, Coimbatore-641004

# **Department of Economics**

# CHOICE BASED CREDIT SYSTEM & LEARNING OUTCOME BASED EDUCATION

# **M.A. Applied Economics**

Syllabus 2024 – 2026



# PROGRAMME LEARNING OUTCOMES: (PLOs)

On completion of the programme students will be able to

PLO1: Demonstrate the knowledge of theories, policies, and empirical findings of Economics.

PLO2: Engage in scientific inquiry, critical thinking, using quantitative and qualitative methods.

PLO3: Access and extract data from multiple sources, analyse and interpret the results using quantitative and qualitative tools.

PLO4: Demonstrate competence in written and oral communication and convincingly present arguments with virtual tools.

PLO5: Apply knowledge of economics for team building and create entrepreneurial initiatives for livelihood and social development.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs):**

PSO1: Apply theories, models, and tools of Economics to analyze socio-economic issues and formulate viable solutions.

PSO2: Undertake scientific enquiry and research to resolve socio-economic problems

PSO3: Demonstrate professional competencies to investigate socio-economic issues, extracting qualitative and quantitative data, critically examining its impacts for resource allocation, distribution, and exchange.

PSO4: Engage in reflective thinking leading to self-learning and lifelong learning.

PSO5: Forge sustainable linkages with communities, thereby giving a boost to civic engagement



| Seme<br>ster |     | Subject<br>code | Title of paper                                       | Instru<br>ction<br>hours<br>/<br>Week | Cont<br>act<br>hour<br>s | i utoria<br>1 | Durati<br>on of<br>Exami<br>nation |    | Examination<br>Marks |       | Credits |
|--------------|-----|-----------------|--|---------------------------------------|--------------------------|---------------|------------------------------------|----|----------------------|-------|---------|
|              |     |                 |  |                                       |                          |               |                                    | CA | ESE                  | Total |         |
| Ι            | III | MAE2401         | Micro Economics<br>Theory and<br>Application         | 5                                     | 73                       | 2             | 3                                  | 25 | 75                   | 100   | 4       |
| Ι            | III | MAE2402         | Macro Economics<br>Theory and Policies               | 5                                     | 73                       | 2             | 3                                  | 25 | 75                   | 100   | 4       |
| Ι            | III | MAE2403         | Statistics for Data<br>Analysis                      | 6                                     | 88                       | 2             | 3                                  | 25 | 75                   | 100   | 5       |
| Ι            | III | MAE2404         | Economics of Growth and Development                  | 5                                     | 73                       | 2             | 3                                  | 25 | 75                   | 100   | 4       |
| Ι            | III | MAE2405         | Agricultural<br>Economics                            | 5                                     | 73                       | 2             | 3                                  | 25 | 75                   | 100   | 4       |
| Ι            | III | MAE24P1         | Practical I –<br>Advanced Excel for<br>Data Analysis | 4                                     | 58                       | 2             | 3                                  | 25 | 75                   | 100   | 2       |
| Ι            | III | 17MONL1         | Online Course 1                                      | -                                     | -                        |               | -                                  | -  | -                    | -     | Grade   |
|              |     |                 |  |                                       |                          |               |                                    |    |                      |       |         |

# MA Applied Economics Curriculum and Scheme of Examination (2024-25)

| COURSE<br>NUMBER | COURSE NAME                | Category | L  | Τ | Р | Credit |
|------------------|----------------------------|----------|----|---|---|--------|
| MAE2401          | MICRO ECONOMICS THEORY AND | Theory   | 73 | 2 | - | 4      |
|                  | APPLICATION                |          |    |   |   |        |

To make the students to understand consumer behavior with the theories of Demand and Production and elaborate various market structure and the theories of distribution.

# **COURSE OUTCOMES**

Upon Completion of this course, the Students will be able to

| No.  | Course Outcomes   | K-Levels |
|------|---|----------|
| CLO1 | Define, explain, and compare the Theory of distribution.            | K2       |
| CLO2 | Understand the theories of consumer behavior                        | K3       |
| CLO3 | Identify the choice under uncertainty and Economics of information. | K4       |
| CLO4 | Examine the alternative theories of firms.                          | K5       |
| CLO5 | Evaluate how price and output is determined in different market     |          |
|      | situations and the market structures                                | K6       |

# Mapping with Programme Outcomes

| CLOs | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 |
|------|------|------|------|------|------|
| CLO1 | S    | S    | S    | S    | М    |
| CLO2 | S    | S    | S    | М    | S    |
| CLO3 | S    | S    | М    | S    | S    |
| CLO4 | S    | S    | S    | S    | S    |
| CLO5 | S    | S    | S    | S    | S    |

S-Strong; M-Medium; L-Low

#### **SEMESTER I**

# **CORE PAPER I - MICRO ECONOMICS THEORY AND APPLICATION**

## **Unit I: Consumer Choice:**

Cardinal and ordinal utility - Indifference curve approach - Slutsky's Decomposition of price effect into substitution effect and income effect - Consumer surplus - Marshall's and Hicksian measures - Compensatory Demand Curve- Revealed Preference Theorem- and derivation of Marginal Utility schedule for money income.

# **Unit II: Economics of Information:**

Informational asymmetry - Choice under Uncertainty - N-M Index - Inter-temporal choice -Market for lemons- Adverse selection - Insurance market and adverse selection - Solution to principal agent problem- Hidden action (Moral Hazard) - Signaling and Screening.

# **Unit III: Market Structure Models**

Perfect competition - Price and output determination - Optimum firm-Monopoly - Short run and long run equilibrium - Price discrimination monopoly control, and regulation - Contestable Market-Monopolistic competition-Chamberlin Model- selling costs - Excess capacity -Oligopoly - Duopoly price game-dominant strategy-Nash Equilibrium Non-collusive Models -Oligopoly - Collusive Models - Cartels and mergers -Price leadership - Base point price systemMonopsony – Price and output determination – Workable competition.

# **Unit -IV: Alternative Theories of Firm:**

Full Cost Pricing Rule- Limits pricing Theory- Bains Theory- Sylos-Labini Model-Modigliani's Models- Input-output model -Linear programming applications in decision making- Peak Load Pricing - Administered Pricing- Purchasing Power Parity Price.

# **Unit -V: Distribution Theories:**

Neo-classical approach - Marginal productivity Theory; Product exhaustion theorem; - Modern Theory of distribution - Factor Pricing in imperfect product and factor markets- Determination of Wages -Labour supply and wage determination - Role of trade unions and collective bargaining- Theories of Interest- Theories of Profit.

| S.No | Author Name   | Title of the Book        | Publication                    | Year |
|------|---------------|--------------------------|--------------------------------|------|
| 1.   | Jhingan M.L,. | Advanced Economic Theory | Vrindha Publications (P) Ltd., | 2004 |
|      |               |                          | New Delhi                      |      |
| 2.   | Agarwal, H.S. | Micro Economic Theory    | Ane's Books Pvt. Ltd., New     | 2010 |
|      |               |                          | Delhi                          |      |

#### **Text Books:**

**References:** 

| S.No | Author Name     | Title of the Book            | Publication                | Year |
|------|-----------------|------------------------------|----------------------------|------|
| 1.   | Hal R. Varian,. | Intermediate Micro Economics | East-West Press: New Delhi | 2004 |
| 2.   | Ahuja H.L.      | Advanced Economic Theory     | Chand & co New Delhi       | 2017 |

#### Pedagogy Lecture by chalk & talk, Power Point Presentation, Assignment, Quiz, Seminar **Course Designers**:

1. Dr.K.Renuka, Associate Professor & HOD, Department of Economics

2. Dr.S.PadmaAnnakamu, Assistant Professor, Department of Economics

#### **14 Hours**

# **16 Hours**

**13 Hours** 

**16 Hours** 

**14 Hours** 

| COURSE<br>NUMBER | COURSE NAME                            | Category | L  | Τ | Р | Credit |
|------------------|--|----------|----|---|---|--------|
| MAE2402          | MACRO ECONOMICS THEORY AND<br>POLICIES | Theory   | 73 | 2 | - | 4      |

To understand the theoretical foundation of macroeconomics and the contribution of different schools of thought to the further development of macroeconomics.

# **COURSE OUTCOMES**

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

| NO   | Course Outcomes   | Knowledge |
|------|---|-----------|
|      |   | Level     |
| CLO1 | Understand nature of various macroeconomic variables such as<br>output, unemployment, inflation, productivity, and the major<br>challenges associated with the measurement of these aggregates. | K2        |
| CLO2 | Explain the difference between financial markets and there all<br>economy, and how these linkages influence the impact of economic<br>policies over different time horizons.                    | К3        |
| CLO3 | Examinemacroeconomictheoriesofshort-termfluctuationsandlong-<br>termgrowthinthe economy.  | K4        |
| CLO4 | Evaluate the consequences of basic macroeconomic policy options<br>under differing economic conditions within a business cycle.   | K5        |
| CLO5 | Analyse balance of payment-wealth effect in the static<br>model- expenditure changing policies- Effective demand-<br>accelerator principle  | K6        |

# Mapping with Programme Outcomes

| CLOs | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 |
|------|------|------|------|------|------|
| CLO1 | S    | S    | М    | S    | S    |
| CLO2 | S    | S    | S    | S    | S    |
| CLO3 | S    | S    | S    | S    | М    |
| CLO4 | S    | S    | S    | S    | S    |
| CLO5 | S    | L    | S    | S    | М    |

S-Strong;M-Medium; L-Low

# SEMESTER – I CORE PAPER -MACRO ECONOMICS THEORY AND POLICIES

# **Unit-1 Income and Output determination**

Thedevelopmentofmacroeconomics-Thegovernmentsectorandforeignsector-Classical theory of income and employment- The saving investment balance- The labour market equilibrium-Aggregate demand and supply, money and prices in classical model- Keynes' theory of employment- Consumption function, investment demand –Effective demand-Determination of equilibrium income-Theory of multiplier-Derivation of the expenditure multiplier.

# Unit-2 Demand side and Supply side Equilibrium

Equilibrium income and the interest rate determination in the product market- Equilibrium income and the interest rate determination in the money market- Derivation of IS and LM curves-Shift in IS and LM curves-Simultaneous equilibrium- Fiscal and monetary policy effects on demand - Interaction of monetary and fiscal policies-Aggregate supply in the short run and long run – Supply side disturbances and reactions-Demand side disturbances and reactions-Determination of equilibrium income, employment, rate of interest and price level.

## **Unit-3 Consumption, Saving and Investment**

Theories of aggregate consumption- Absolute income hypothesis- Relative income hypothesis-Life cycle hypothesis-Permanent income hypothesis-Robert Hal land Random Walk Hypothesis-Non-income factors affecting consumption-The MPS model-The wealth effect in the static model-The present value criterion for investment-The marginal efficiency of investment-Investment demand and output growth-The accelerator principle and stabilization policy-The rental cost of capital and investment-Tobin's q theory of investment.

# **Unit-4 Monetary and Fiscal policy**

The instruments of monetary policy-The mechanism of monetary expansion- money growth targeting and inflation targeting -The effects of fiscal policy changes-Three ranges of LM curve-The effectiveness of monetary and fiscal policy: Monetarists and Fiscalists-Tax rate changes and the budget deficit-Fiscal stimulus and deficit financing- crowding out and crowding in controversy- Quantitative easing policies-macroeconomic policies in advanced and emerging economies.

# **Unit-5 The External Sector equilibrium**

The current account and product market equilibrium-The capital account and balance of payments equilibrium-Balance of payment adjustment and the LM curve- The Classical approach: The automatic adjustment method- Balance of payment adjustment by policy measures: Mundell-Fleming model- The expenditure changing policies- The expenditure switching policy: Devaluation- Monetary approach to Balance of payment adjustments.

| Sl.No           | Author Name | Title of the Book  | Publisher                   | Year of     |  |  |
|-----------------|-------------|--------------------|-----------------------------|-------------|--|--|
|                 |             |                    |                             | Publication |  |  |
| 1.              | M.L.Jhingan | Macro Economics    | VrindaPlubication           | 2017        |  |  |
| 2               | William.H.  | Macroeconomic      | All India Traveller Book    | 2005        |  |  |
|                 | Branson     | Theory and Policy, | Seller Publishers, NewDelhi |             |  |  |
| Reference Books |             |                    |                             |             |  |  |

Publisher

Tata Mc Graw Hill

Worth Publication

Education.

# TextBooks

Sl.No

1

2

Pedagogy: Lecture by chalk & talk, Power Point Presentation, Case study, Assignment, Quiz, Seminar

# CourseDesigners

**Author Name** 

D.N.Dwivedi.

N.Gregory

Mankiw

1. Dr.G.D.Jasminedeporal, Assistant Professor, Department of Economics..

**Title of the Book** 

Macro economics:

Theory and Policy

Macro Economics

2. Dr.S.PadmaAnnakamu, Assistant Professor, Department of Economics,

#### 13 hours

# 16 hours

## 14 hours

Year of

**Publication** 

2005

2007

15 hours

# 15 hours

| COURSE  | COURSE NAME    | Category | L  | Т | Р | Credit |
|---------|----------------|----------|----|---|---|--------|
| NUMBER  |                |          |    |   |   |        |
| MAE2402 | STATISTICS FOR | Theory   | 88 | 2 |   | 5      |
| MAE2403 | DATA ANALYSIS  |          |    |   |   |        |

To provide a strong foundation in statistical concepts and develop skills in data handling, research, model building and forecasting.

# **COURSE OUTCOMES**

Upon Completion of this course, the students will be able to

| No   | Course Outcomes  | K-Levels |
|------|--|----------|
| CLO1 | Summarize the basic Probability rules and understand theoretical | K2       |
|      | distributions.   |          |
| CLO2 | Acquire knowledge on the various sampling methods and testing of | K2, K3   |
|      | Hypothesis   |          |
| CLO3 | Use t test and chi square for data analysis                      | K4       |
| CLO4 | Understand the application of one- and two-way ANOVA             | K5       |
| CLO5 | Apply various decision-making tools available                    | K6       |

# Mapping with Programme Specific Outcomes

| CLOS | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 |
|------|------|------|------|------|------|
| CLO1 | S    | М    | S    | М    | М    |
| CLO2 | S    | М    | S    | S    | S    |
| CLO3 | S    | S    | S    | S    | S    |
| CLO4 | S    | S    | S    | S    | S    |
| CLO5 | М    | S    | S    | М    | S    |

S-Strong; M-Medium; L-Low

#### SEMESTER – I

#### CORE PAPER III- STATISTICS FOR DATA ANALYSIS

#### **Unit I: Probability:**

Probability - Addition and Multiplication Theorems - Conditional Probability - Discrete and Continuous - Random Variables - Mathematical Expectations – Bayes Theorem - Theoretical Distributions - Binomial, Poisson and Normal.

#### Unit II: Sampling and Hypothesis Testing:

Sampling Theory - Types of Sampling - Sampling Distributions - Parameter and Statistic -Testing of Hypothesis - Level of Significance - Type I and Type II Errors - Standard Error -Properties of Estimator.

# Unit III: Test of Significance Large and Small Sample: 18 Hours

Difference between Large and Small Samples - Test of Significance for Large Samples - Test for Two Means and Standard Deviations - Proportion and Confidence Interval - Small Sample Test – t-test - Paired t- test - Chi-square Test- Test of Goodness of Fit.

#### **Unit IV: Analysis of Variance:**

F test: Assumptions in F test - Analysis of Variance: Assumptions – One-Way and Two-Way Classifications.

#### **Unit V: Statistical Decision Theory:**

Definitions – Concepts – Maximin - Minimax - Bayes Criterion - Expected Monetary Value - Decision Tree Analysis: Symbols - Steps - Advantages and Limitations.

#### **Text Books**

| Sl.No | Author Name                          | Title of the Book                        | Publisher                         | Year of     |
|-------|--------------------------------------|--|-----------------------------------|-------------|
|       |                                      |  |                                   | Publication |
| 1.    | Gupta S.P                            | Statistical Methods,                     | Sultan Chand and Sons, New Delhi, | 2021        |
| 2.    | Anderson,<br>Sweeney and<br>Williams | Statistics for Business and<br>Economics | Cengage                           | 2014        |

References:

| Sl.No | Author Name                      | Title of the Book  | Publisher                                      | Year of     |
|-------|----------------------------------|--|--|-------------|
|       |                                  |  |  | Publication |
| 1     | Aggarwal. Y.P                    | "Statistics Methods –<br>Concepts Application and<br>Computation", | Sterling Publishers<br>Private Ltd., New Delhi | 2017        |
| 2.    | Pillai R.S.N. and<br>Bagavathi V | Statistics,  | Sultan & amp; Chand<br>Sons, New Delhi         | 2019        |

Pedagogy : Chalk and Talk, PPT, Pair and Share, Peer Learning

#### **Course Designers**

- 1. Dr. C. Athena. Assistant Professor, Department of Economics
- 2. Dr. K. Renuka, Associate Professor, Department of Economics

#### **18 Hours**

**16 Hours** 

# **18 Hours**

18 hours

| COURSE  | COURSE NAME         | Category | L  | Т | Р | Credit |
|---------|---------------------|----------|----|---|---|--------|
| NUMBER  |                     |          |    |   |   |        |
| MAE2404 | ECONOMICS OF GROWTH | Theory   | 73 | 2 | - | 4      |
|         | AND DEVELOPMENT     |          |    |   |   |        |

To enable the students to examine the challenges faced by developing countries; explore the factors that influence their economic growth and the role of policies in promoting sustainable development.

# **COURSE OUTCOMES**

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

| No    | Course Outcomes  | K-Levels |
|-------|--|----------|
| CLO 1 | Understand the concepts of poverty and inequality and role of<br>governance and institutions in the context of sustainable development,<br>environmental issues, and globalization                                     | K2       |
| CLO 2 | Apply the Growth Models and Theories to analyze economic growth,<br>while also understanding the role of human capital, structural<br>transformation, innovation, and technology in the context of<br>economic growth. | К3       |
| CLO 3 | Analyse the merits and demerits of trade development strategies,<br>understanding the dynamics of industrialization and structural<br>transformation   | K4       |
| CLO 4 | Analyze the distinctions between economic growth and development,<br>and understand the historical perspectives,   | K4       |
| CLO 5 | Evaluate the theoretical frameworks, and measurement techniques in<br>the field of growth and development economics.   | K5       |

# **Mapping with Programme Outcomes**

| CLOs  | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 |
|-------|------|------|------|------|------|
| CLO 1 | S    | S    | S    | S    | S    |
| CLO 2 | S    | М    | S    | S    | S    |
| CLO 3 | S    | S    | S    | М    | S    |
| CLO 4 | S    | S    | S    | S    | S    |
| CLO 5 | S    | М    | S    | S    | S    |

S-Strong; M-Medium; L-Low

## **CORE PAPER IV - ECONOMICS OF GROWTH AND DEVELOPMENT**

# **Unit 1: Introduction to Growth and Development Economics:**

Definitions and distinctions between economic growth and development-Historical perspectives on development-Theoretical frameworks in growth and development economics-Measuring economic development: income and non-income indicators-Key challenges.

# **Unit 2: Theories of Economic Growth:**

Harrod-Domar Model-Solow Growth Model-Endogenous Growth Theories-Human Capital and Economic Growth-Structural Transformation and Growth-Innovation, Technology, and Growth-Critical minimum efforts thesis- Low level equilibrium trap-Dualism and Dependency theory-Neo-classical Theories of Growth Preferences, Technology, and Demographics-- Lewis Model, Ranis and Fei Model, Big push theory.

**Unit 3: Economic Development Strategies:** Industrialization and Structural Transformation-Rural and Agricultural Development- Human Capital Development-Technological progress and innovation policies- Trade and development strategies- Role of Foreign Aid and Foreign Direct Investment- Environmental sustainability in development- Economic reforms and liberalization- Case studies on development policies and their outcomes

**Unit 4: Inequality, Poverty, and Development:** 15 Hours Concepts of poverty and inequality-Measurement of poverty and inequality-The povertyenvironment nexus-Policies for poverty reduction-Inclusive development and social safety nets-Urbanization and Income Inequality-Education Disparities and Human Capital Development-Gender Inequality and Economic Development-Rural Poverty and Agriculture-Healthcare Disparities and Access to Services-Wealth Inequality and Asset Accumulation-Inequality in Access to Technology and Digital Divide.

#### **Unit 5: Development Policy and Challenges:** 15 Hours

Governance and Institutions-Political Economy of Growth Institutions, Political Economy and Growth: Impact of Institutions on Long-run development, Distributional conflict and economic growth in a simple society, Canonical Cobb-Douglas model of distributional conflict, Sustainable development and environmental issues-Globalization and trade-Macroeconomic stability and fiscal policy-Case studies on selected developing countries

#### **Text Books**

| S.No       | Author Name           | Title of the Book            | Publisher | Year of     |  |  |
|------------|-----------------------|------------------------------|-----------|-------------|--|--|
|            |                       |                              |           | Publication |  |  |
| 1.         | Michael P. Todaro and | Economic Development         | Pearson   | 2022        |  |  |
|            | Stephen C. Smith      |                              |           |             |  |  |
| 2.         | M.L.Jhingan           | The Economics of Development | Vrinda    | 2017        |  |  |
|            |                       | and Planning                 |           |             |  |  |
| References |                       |                              |           |             |  |  |

| KUU  | Acterences               |                                       |              |             |  |  |  |  |
|------|--------------------------|---------------------------------------|--------------|-------------|--|--|--|--|
| S.No | Author Title of the Book |                                       | Publisher    | Year of     |  |  |  |  |
|      | Name                     |                                       |              | Publication |  |  |  |  |
| 1    | Agarwal.R.C              | Economics of Development and Planning | Agarwal      | 2020        |  |  |  |  |
| 2.   | Amartya Sen              | Development as Freedom                | Anchor Books | 1999        |  |  |  |  |
|      |                          |                                       |              |             |  |  |  |  |

**Pedagogy**: Chalk & Talk, PPT, Peer Learning, Quizzalise **Course Designers** 

- 1. DrKavitha N.V, Asst Professor, Department of Economics
- 2. DrS.PadmaAnnakamu, Asst Professor, Department of Economics

#### 17 Hours

Hours

12

#### 14 Hours

| COURSE  | COURSE NAME            | Category | L  | Τ | Р | Credit |
|---------|------------------------|----------|----|---|---|--------|
| NUMBER  |                        |          |    |   |   |        |
| MAE2405 | AGRICULTURAL ECONOMICS | Theory   | 73 | 2 |   | 4      |

The course is structured based on three stages of Agricultural Productions, namely Preproduction, Production and Post Production so that the students get an overall understanding of the agricultural issues and policy thereof.

# **COURSE OUTCOMES**

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

| No   | Course Outcomes  | Knowledge |
|------|--|-----------|
|      |  | Level     |
| CLO1 | Sensitize the overall development and engine of growth in agriculture  | K2        |
| CLO2 | Explain Gain deep knowledge of the causes of regional variations<br>in productivity and production, social and economic inequality,<br>size of land holdings and lack of quality inputs etc. | K3        |
| CLO3 | Analyse the production and rural structure of the economy  | K4        |
| CLO4 | Examine the post production and Pricing and marketing strategies   | K5        |
| CLO5 | Describe the agriculture sector and emerging issues in an  |           |
|      | interdependent world   | K6        |

# Mapping with Programme Outcomes

| CLOs | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 |
|------|------|------|------|------|------|
| CLO1 | S    | S    | М    | S    | S    |
| CLO2 | S    | S    | S    | S    | S    |
| CLO3 | S    | S    | S    | S    | М    |
| CLO4 | S    | S    | S    | S    | S    |
| CLO5 | S    | S    | S    | S    | S    |

S - Strong; M-Medium; L-Low

# SEMESTER – I

# **CORE PAPER V - AGRICULTURAL ECONOMICS**

# **UNIT I Introduction**

Agricultural Economics: meaning, nature and scope; History and Development; Contribution; Basic Theories; Hunger and Malnutrition; Food and Nutritional Security.

# **UNIT II Production and Rural Structures**

Issues related to Land; Water; Energy; Seed; Fertilizers; Nexus issues; Credit; Indebtedness; Subsidies; Insurance and Capital formation. Crop Production and Productivity; Labour Relations Employment and Wage; Non-farm Sector; Role of Technologies; Livestock Management; Structural Transformation and Mobility

# UNIT III Post-Production, Marketing and Pricing Strategies 14 Hours

Cost of Cultivation and CACP; Pricing; Income; Issues in Marketing and its Channels; Value Addition and Processing; Research: Education and Extension.

# UNIT IV Agriculture in an Interdependent World

WTO, Negotiations and Agreements; Trade and International Relations; Problems of Agricultural Subsidies; Patents; Agricultural Exports: Quantitative Restrictions (QRs) and Non-Tariff Barriers

# UNIT V Emerging Issues in Agriculture

Sustainable Agriculture; Climate Change and issues; Organic, Zero Budget, Climate Smart and Precision Farming; Law and Policies, Best Practices in Agriculture from around the World.

# **Text Books**

| Sl.No. | Author Name        | Title of the Book             | Publisher        | Year of     |
|--------|--------------------|-------------------------------|------------------|-------------|
|        |                    |                               |                  | Publication |
| 1.     | Ray,D.,            | Development Economics         | Oxford Publisher | 1999        |
| 2      | von Braun, J, M.S. | Agriculture, Food Security,   | Essay, IFPRI,    | 2005        |
|        | Swaminathan, and M | Nutrition, and the Millennium | Washington. DC   |             |
|        | W. Rosegrant,      | Development Goals             |                  |             |

# **Reference Books**

| Sl.No | Author Name    | Title of the Book                   | Publisher  | Year of     |
|-------|----------------|-------------------------------------|------------|-------------|
|       |                |                                     |            | Publication |
| 1     | Sadhu.A.M. &   | Fundamentals of Agricultural        | Himalyan   | 2014        |
|       | Singh          | Economics                           | Publishing |             |
|       |                |                                     | House      |             |
| 2     | Vaidyanathan,A | Performance of Indian Agriculture   | Oxford     | 1994        |
|       |                | since Independence" in Kaushik Basu | University |             |
|       |                | (ed.), Agrarian Questions           | Press.     |             |

# Pedagogy

Lecture by chalk & talk, Power Point Presentation, Assignment, Quiz, Seminar

# **Course Designers:**

1. Dr.S.PadmaAnnakamu, Assistant Professor, Department of Economics

2. Dr.Jasminedeporal, Assistant Professor, Department of Economics

# 14 Hours

# 13 Hours

# 16 Hours

# 14 110u15

16

Hours

| COURSE<br>NUMBER | COURSENAME                          | Category  | L  | Т | Р | Credit |
|------------------|-------------------------------------|-----------|----|---|---|--------|
| MAE24P1          | ADVANCED EXCEL FOR DATA<br>ANALYSIS | Practical | 58 | 2 | - | 2      |

The Course aim locate economics data and provide meaningful economic analysis of this data using Excel to produce charts, scatter plots, descriptive statistics and simple linear regression.

# **COURSE OUTCOMES**

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

| NO   | Course Outcomes  | Knowledge<br>Level |
|------|--|--------------------|
| CLO1 | Understand Excel effectively and efficiently use Microsoft Excel to<br>convert raw data into useful information for Business and Economic<br>decision-making. Cell References, Number Formats Facade,<br>Effective and efficient spread sheet design including<br>Excel's Golden Rule. | K2                 |
| CLO2 | Demonstrate the ability to use data analysis packages of advanced<br>excel pertaining to Statistics and econometric analysis to give<br>robust and significant answers to economic and societal problems.  | К3                 |
| CLO3 | Analyse the Cross Tabulation-Hypothesis Testing- One sample z<br>test-Coefficient of variation, Standard Deviation and coefficient of<br>variation- Skewness, and Kurtosis   | K4                 |
| CLO4 | Examine paired t-test- Mann-Whitney U test- Kruskal Wallis test,<br>Chi-Square- F test Data Analysis features, such as PivotTables,<br>Sorting, Filtering and Importing Data, Vlookup. Price indices-<br>Quantity Indices  | K5                 |
| CLO5 | Describe spearman's Rank correlation- Partial Correlation-<br>Simple and Multiple Regression, ANOVA,<br>MANOVA,<br>MANCOVA, Factor Analysis  | K6                 |

# Mapping with Programme Outcomes

| CLOs | PLO1 | PLO2 | PLO3 | PLO4 | PLO5 |
|------|------|------|------|------|------|
| CLO1 | S    | S    | М    | S    | S    |
| CLO2 | S    | S    | S    | S    | S    |
| CLO3 | S    | S    | S    | S    | М    |
| CLO4 | S    | S    | S    | S    | S    |
| CLO5 | S    | М    | S    | М    | S    |

S-Strong;M-Medium;L-Low

# PRACTICAL – I ADVANCED EXCEL FOR DATA ANALYSIS

# **Unit-1 Introduction to Excel**

Excel basic: Introduction about Microsoft Excel at the basic level: overview, tools, creates a spreadsheet, format, spreadsheet, calculations, create charts and printing, Formulas & Functions, Cell References, Number Format as Facade, Effective and efficient spreadsheet design including Excel's Golden Rule, Data Analysis features, such as Pivot Tables, Sorting, Filtering and Importing Data, V lookup

# **Unit-2 Univariate Analysis**

Tabulation and diagrammatic representation of data-Line, Bar, Pie Diagram – Frequency Distribution and its diagrammatic presentation- Construction of frequency distribution – Histogram, O give and Frequency Polygon - Measures of Central Tendency-Mean, Median, Mode –Measures of dispersion- Range, Mean Deviation, Coefficient of variation, Standard Deviation and coefficient of variation - Skewness and Kurtosis

# **Unit-3 Bivariate and Multivariate Analysis**

Scatter Plots, Cross Tabulation-Hypothesis Testing- One sample z test- One sample t test-Paired t-test-Mann-Whitney U test-Kruskal Wallis test, Chi-Square-F test

**Unit-4AnalysisofCorrelation** 

Correlation Coefficient - Spearman's Rank correlation – Partial Correlation-Simple and Multiple Regression, Use of confidence intervals and hypothesis tests for regression coefficients, Dummy, and indicator variables, ANOVA, MANOVA, MANCOVA, Factor Analysis

# **Unit-5 Indices**

Price indices – Quantity Indices – Deflating time series by price indices –Shifting bases and chaining indices

| Sl.No | Author Name | Title of the Book               | Publisher        | Year of     |
|-------|-------------|---------------------------------|------------------|-------------|
|       |             |                                 |                  | Publication |
| 1.    | Anderson,S  | Essentials of Modern            | Cengage Learning | 2017        |
|       | weeney,     | <b>Business Statistics with</b> |                  |             |
|       | Williams    | Microsoft Office Excel          |                  |             |
| 2     | Rinkoo      | MS Excel: A Book for            | Prentice-Hall,   | 2021        |
|       | Jainn       | learners and Trainers           |                  |             |

# TextBooks

## **Reference Books**

| Sl.No | Author Name      | Title of the Book  | Publisher                       | Year of<br>Publication |
|-------|------------------|--|---------------------------------|------------------------|
| 1     | Sima Alex        | Excel Formulas and<br>Functions: Cool Tips and<br>Tricks With Formulas in<br>Excel                 | Caprioru                        | 2019                   |
| 2     | LeonardoL.Wright | Excel2023:AComprehensive<br>Guide to become an Expert on<br>Excel 2023 With All-in-One<br>Approach | Eclectic<br>Editions<br>Limited | 2023                   |

Pedagogy: Lecture by chalk & talk, Power Point Presentation, Case study, Assignment, Quiz, Seminar

# CourseDesigners

- 1. Dr.S.PadmaAnnakamu, Assistant Professor, Department of Economics
- 2. Dr.G.D.Jasminedeporal, Assistant Professor, Department of Economics

#### 8 hours

# 15 hours

16 hours

10 hours

# 9 hours