# PROGRAM / COURSE OBJECTIVES AND OUTCOMES

of

# M. A. in Analytical and Applied Economics

# **Admission Batch 2023-24 onwards**

# **Choice Based Credit System**

(Passed in the BoS Meeting dated 23 February 2023)



# Utkal University, Vani Vihar, Bhubaneswar, Odisha, India

The Department of Analytical and Applied Economics offers two programs at the postgraduate level. Those are (i) MA in A & A Economics and (ii) Ph.D in A & A Economics / Economics.

# Master of Arts in Analytical and Applied Economics

Eligibility: Bachelor's degree in 10+2+3 with Economics Honours / Major or other equivalent modes Intake Capacity: 88 Selection criteria: Career score and performance in common entrance test.

#### Program Description and Objectives:

The Master's program in A & A Economics was initiated in 1963 as an effort to provide Economics education to students of Odisha aspiring for a career in economics and public policy. The program operates in a Choice Based Credit System (CBCS) mode of 102 credits spread out over four semesters. The course composition includes analytical courses termed Hard-Core Economics courses such as Microeconomics, Macroeconomics, Quantitative Methods, Public Economics, Indian Economy, and Basic Econometrics. These courses are designed to provide a core understanding of the subject. There are also applied courses termed Core Electives and Allied Electives which are designed to enrich understanding of the application of economics in various fields influencing the economic and social life of human beings. A detailed description of these courses is given in the detailed syllabus. In order to make the course more interdisciplinary and to respect the spirit of a choice-based system of education, there are also courses called free electives offered to any student of the university irrespective of their discipline. These courses include International Finance, Computer Application in Economics, Environmental Impact Assessment, and Entrepreneurship and Economic Development. The courses are revised in regular intervals to incorporate new knowledge in economic sciences and their application. In order to promote research aptitude and orientation, which can help our students in their higher studies in economics, the program also includes a five-credit course that requires students to undertake guided research work and write a dissertation reporting their findings.

The specific objectives of the course are:

- 1. Exposure to social realities through an internship, study tours, exposure visits, and project work.
- 2. Exposure to computational packages like Stata and SPSS which are widely used for data analysis in industry.
- 3. Better employability through skill building in quantitative research and computational packages
- 4. Enhancing industry readiness through add-on courses and compulsory Internship program
- 5. Improving writing skills through their engagement in dissertation writing, term papers, and concurrent evaluation activities
- 6. Broadening their horizon through regular interaction with experts in student seminars
- 7. Proactively participate in economic policy designing through consultancy, extension activities, and intervention efforts
- 8. Inculcate problem-solving skills and sensitiveness among students for rational decision-making
- 9. Creation and dissemination of knowledge in economics through interdisciplinary research

# **Expected Outcomes of the MA Program**

The students who successfully complete the program are expected to have

- (1) Exposure to social realities through study tours, data collection through fieldwork, and regular interaction with experts in student seminars.
- (2) Exposure to computational packages like Stata, R, and SPSS which are widely used for data analysis in industry.
- (3) Better employability through skill building in quantitative research, computational packages, add-on courses, and compulsory Internship programs.
- (4) Be more ready for the industry and the job market.
- (5) Better writing skills through their engagement in dissertation writing, term papers, and concurrent evaluation activities.
- (6) Have a broad horizon of the socio-economic realities.
- (7) Be able to participate in economic policy designing.
- (8) Have better skills to think of solutions for economic and societal issues.
- (9) Be capable of having an interdisciplinary approach to issues.

# **Course Structure for MA in A & A Economics**

Paper Code	Nature of Paper	Paper Name	Credit		
HCE101		Microeconomics I	05		
HCE102	Hard Core	Macroeconomics I	05		
HCE103		Quantitative Methods I	05		
HCE104		Public Economics	05		
HCE105		Indian Economy	05		

# **SEMESTER I**

# **SEMESTER II**

Paper Code	Nature of Paper	Paper Name	Credit		
HCE201		Microeconomics II	05		
HCE202	Hard Core	Macroeconomics II	05		
HCE203		Quantitative Methods II	05		
HCE204		Economics of Growth and	05		
		Development			
CEE201	Core Elective	Core Elective I	05		
Summer Internship:			02		
Minimum of one month duration (Compulsory)					

# **SEMESTER III**

Paper Code	Nature of Paper	Paper Name	Credit
HCE301	Hard Core	Basic Econometrics	05
CEE301/302	Core Elective	Core Elective II	05
AEE301	Allied Elective	Allied Elective I	05
FEE301	Free Elective	Free Elective I	05
FEE302		Free Elective II	05

# **SEMESTER IV**

Paper Code	Nature of Paper	Paper Name	Credit	
CEE401	Core Elective	Core Elective III	05	
CEE402		Core Elective IV	05	
AEE401	Allied Elective	Allied Elective II	05	
AEE402		Allied Elective III	05	
AEE403		Allied Elective IV	05	

Total Credit 102

# Semester II

**Core Electives** 

- 1. Economics of Education
- 2. Monetary Management in an Open Economy
- 3. Labour Economics

# Semester III

# **Core Electives,**

- 1. International Economics
- 2. Industrial Economics

# Allied Electives,

- 1. Agricultural Economics
- 2. Financial Programming
- 3. History of Economic Thought
- 4. Managerial Economics

# **Free Electives**

- **1.** International Finance
- 2. Computational Economics
- **3.** Health Economics
- 4. Environmental Impact Assessment
- 5. Entrepreneurship and Economic Development

# Semester IV

# **Core Electives**

- 1. Economics of Environment
- 2. Dissertation
- **3. Rural Economics**
- 4. Demography

# **Allied Electives**

- 1. Financial Institutions and Market
- 2. Mathematical Economics
- **3.** Advanced Econometrics
- 4. Economics of Gender and Development
- 5. Financial Inclusion and Economic Development
- 6. Economics of Discrimination
- 7. Financial Economics

# **Proposed Allied Department**

- 1. Commerce
- 2. Management
- 3. PM&IR
- 4. Statistics
- 5. Sociology
- 6. Anthropology
- 7. Mathematics
- 8. Psychology

#### Semester I Paper HCE101 Microeconomic Analysis I

# **Course Objectives**

- 1. To have a theoretical understanding of consumer behaviour and decision-making.
- 2. To get acquainted with recent advances in microeconomic theory.
- 3. To acquire the skills to apply theoretical knowledge in research.
- 4. To learn about the theory of demand, Utility Functions types and properties; and Consumers' choices involving risk and uncertainty.
- **5.** To have an understanding of Production function types and properties; Theories of Cost and an overview of the general equilibrium theory.

# **Course Outcomes:**

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

- 1. have an understanding of the basic reasoning of Economics and understand the consumption; production and cost concepts in an analytical way;
- 2. have an idea about the recent advances in microeconomic theory;
- 3. apply mathematical tools and techniques to study the behaviour of individual economic agents;
- 4. apply the theoretical knowledge in research;
- 5. understand the basic principles of General equilibrium theory.

# Paper HCE102 Macroeconomic Analysis I

# **Course Objectives:**

- 1. To analyze and establish the functional relationship between economy-level aggregates.
- 2. To have a proper understanding of macroeconomic theoretical structure.
- 3. To educate the students on different terms and concepts in macroeconomics like national income accounting, and Circular flows,
- 4. To have an understanding of the consumption function and investment function.
- 5. To gain knowledge about the supply and demand for money.

# **Course Outcomes:**

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

- 1. Apply the subject knowledge in understanding the workings of the economy as well as the macroeconomic issues and policies;
- 2. Understand systemic facts and theoretical developments therein;
- 3. Understand the concepts of national income;
- 4. Have an understanding of the macro variables like consumption and investment;
- 5. Have an idea about the supply and demand for money in an economy.

# Paper HCE103 Quantitative Methods I

# **Course Objectives**

- 1. To train the students to use the techniques of mathematical analysis, which are commonly applied to understand and analyze economic problems.
- 2. To emphasize the mathematical methods rather than learning mathematics, which are usually used to understand economic concepts.
- 3. To equip the students with the knowledge of matrices and determinants which are often used in data presentation and analysis.
- 4. To learn about the classical techniques involving functions and calculus.
- 5. To gain knowledge about the elements of Game Theory as applicable to real-life economic analysis.

# **Course Outcome**

On completion of this course, a student should be able to

- 1. express the relationship between economic variables mathematically;
- 2. analyze, optimize, and interpret the mathematical relationships;
- 3. use appropriate techniques to solve problems using calculus;
- 4. be capable of using linear algebra for expressing economic situations;
- 5. understand the basics of Game theory to resolve economic issues.

# Paper HCE104 Public Economics

# **Course Objectives:**

- 1. To provide the students with a thorough analytical understanding to analyze public goods, externalities, market failures
- 2. To apprise the students about the economics of government expenditure.
- 3. To understand the principles of taxation.
- 4. To gain an understanding of the public borrowing and the budget.
- 5. To critically analyze fiscal policies/finance and their ramifications in the Indian Economy.

# **Course Outcomes**

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

- 1. have conceptual clarity on the theories of public goods and the provision thereof;
- 2. understand the economics of public expenditure and their historical trends;
- 3. grasp the optimal ways of raising public revenue;
- 4. get an understanding of the budget and different methods of financing it;
- 5. apply the principles of public economics in analyzing various government policies.

# Paper HCE105 Indian Economy

# **Course Objectives**

- 1. To critically understand the economic growth trajectory and economic policies of the Indian economy.
- 2. To understand the institutional reforms in modern India.
- 3. To understand four major economic challenges of the Indian Economy, i.e. Poverty, Inequality, Unemployment, and Inflation
- 4. To have an in-depth analysis of the sectoral contributions of agriculture, industry, and service sectors to the GDP of India.
- 5. To examine the operation and implementation of fiscal and monetary policy in India.

# **Course Outcomes**

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

- 1. have a clear picture of the economic growth trajectory and economic policies in India;
- 2. get an overview of the genesis of institutional reforms in India;
- 3. understand four major economic challenges of the Indian Economy, i.e. Poverty, Inequality, Unemployment, and inflation;
- 4. have an in-depth analysis of the sectoral contributions of agriculture, industry, and service sector in India and
- 5. understand the nitty-gritty of fiscal and monetary policy as adopted in India.

# Semester II Paper HCE201 Microeconomic Analysis II

# **Course Objectives:**

- 1. To impart theoretical knowledge on decision-making under market imperfections
- 2. To examine the dynamics of equilibrium when the market is imperfect
- 3. To make a critical evaluation of marginal analysis
- 4. To impart theoretical knowledge on distribution.
- 5. To gain knowledge about welfare aspects of economic activities under ideal and imperfect markets

# **Course Outcomes:**

After completing the course, the students are expected to;

- 1. Have an in-depth knowledge of decision-making under different market imperfections including oligopoly;
- 2. Critically analyses the marginal analysis;
- 3. Have an in-depth knowledge of the broad paradigms of neoclassical economics;
- 4. Have an understanding of distributional aspects of economic activities;
- 5. Have an idea of the welfare implications of economic activities.

# Paper HCE202 Macroeconomic Analysis II

# **Course Objectives:**

- 1. To make the students acquainted with different terms and concepts in macroeconomics like Money market and real market and their interlinkages
- 2. To examine the process of inflation, especially in developing countries
- 3. To understand the causes of the occurrence of business cycles in a market economy and ways to control them.
- 4. To examine the new classical approach to macroeconomics.
- 5. To expose the students to open economy macroeconomics and dynamics.

# **Course Outcomes:**

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

- **1.** Apply the subject knowledge in understanding the macroeconomic dynamics both in a closed and an open economy;
- 2. Understand the functioning of a market economy and the ways and means to keep such an economy functioning;
- 3. Apply the subject knowledge in understanding the workings of the economy as well as the macroeconomic issues and policies;
- 4. Understand systemic facts about the process of inflation;
- 5. Know regarding the new classical approach to macroeconomics.

# Paper HCE203 Quantitative Methods II

# **Course Objectives**

- 1. To train the students to use the techniques of probability theory and statistical analysis, which are commonly applied to understand and analyze economic problems.
- 2. To understand the theoretical probability distributions and their uses in arriving at decisions
- 3. To deal with simple tools and techniques, which will help in sampling theory and sampling designs, data collection, and analysis
- 4. To understand the basics of the theory of estimation and hypothesis testing
- 5. To initiate the correlation analysis simple, multiple, and partial, and regression analysis linear and non-linear.

# **Course Outcomes**

On completion of this course, a student should be able to

- 1. have a fair idea about probability theory which forms the foundation of inferential statistics;
- 2. understand theoretical distributions and their significance;
- 3. understand sampling and sampling designs;
- 4. understand the theory of estimation and hypothesis testing procedure and
- 5. fit linear and some commonly used non-linear curves.

#### Paper HCE 204 Economics of Growth and Development

# **Course Objectives:**

- 1. To learn about the neoclassical growth models of Solow; Meade; Robinson; Kaldor and Pasinetti
- 2. To discuss Cambridge's criticism of the measurement of capital
- 3. To gain knowledge about the Production Function Approach to Economic Growth
- 4. To understand the importance of endogenous growth theories which highlight human capital as an essential component, for a country like India
- 5. To analyze the investment decisions through investment criteria along with their merits and demerits

#### **Course Outcomes:**

On completion of this course, a student should be able

- 1. to gain knowledge about recent theories of growth and development;
- 2. to understand the dynamic growth theories focusing, among other issues, on labour market distortions;
- 3. to undertake growth accounting;
- 4. to understand the endogenous growth theories;
- 5. to gain knowledge about the cost-benefit analysis of projects.

#### Paper CEE201 Economics of Education

# **Course Objectives:**

- 1. To study the role of economics in evaluating education and education policy
- 2. To familiarize with educational problems in the context of economic concepts, theories, and techniques
- 3. To develop an understanding of planning, financing, and cost of education and to establish the link between the educational system and economic development
- 4. To apply standard economic theories to understand how individuals make education choices
- 5. To explain and predict education markets and their inefficiencies

# **Course Outcomes:**

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

- 1. understand key concepts, issues, theories, and models relating to the economics of education, along with empirical evidence on and policy implications of those theories and models and a deeper understanding of recent research activities;
- 2. understand methods used by economists to evaluate education policies;
- 3. understand and Model the Education Production Function;
- 4. define the return to education and understand its empirical estimates;

5. research and investigative skills such as problem framing and solving and the ability to assemble and evaluate complex evidence and arguments.

# Paper CEE202 Monetary Management in an Open Economy

# **Course Objectives**

- 1. To expose the learners to the economic concepts in an open economy.
- 2. To establish a link between the theory and practice of central banking.
- 3. To provide global best practices on modern central banking.
- 4. To focus on live cases regarding the implementation of monetary policy in India and abroad.
- 5. To explore the challenges of monetary policy in an open economy.

# **Course Outcomes**

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

- **1.** Go beyond the textbooks in studying economics;
- 2. Appreciate the link between the theory and practice of central banking;
- 3. Understand the best practices of modern central banking;
- 4. Analyse the challenges of monetary policy in an open economy;
- **5.** Have enhanced skills to undertake empirical research on macroeconomics and monetary management.

# Paper INT201 Summer Internship Minimum of one-month duration (Compulsory)

In its efforts to increase the exposure of the Master's degree students of the department to social realities and to expose them to the realities of the labour market, the Department of Analytical and Applied Economics proposes an 'Academic Internship' as an integral part of the MA program. The Internship Certificate will carry 02 (two credits) for successful completion of a mandatory one-month internship in any organization engaged in commodity production or service sector. Students are expected to complete the tenure of internship during the summer vacation after completing their 2nd Semester course. The necessary skills acquired by students before they can undertake the internship are analytical comprehension of micro and macroeconomic problems, basic mathematical and statistical tools taught in the QT I and QT II papers, and a paper on Research Methods and Computing. The basic features of the internship are as below.

- Students with approval from their mentors may start identifying suitable organizations/institutions and initiate communication with them during their second semester in the MA Programme.
- The department shall also take adequate steps to create awareness among potential employers about the internship program.

- Students can undertake internships in any organization registered through the Companies Act, Societies Act, government agencies, educational institutions, professional associations of academic bodies, media houses, banking sector, PRIs, and so on.
- At the end of the internship, students need to submit a joining report and completion certificate verified and acknowledged by the head of the institution/organization where the internship is carried out.

# Semester III Paper HCE301 Basic Econometrics

# **Course Objectives**

- 1. To discuss the relevance of econometric modelling and its scope
- 2. To understand Classical Linear Regression Models and their application in two-variable and multiple-variable models
- 3. To understand how the regression models can be used for prediction
- 4. To examine the consequences of violation of assumptions of the classical linear regression model
- 5. To examine the meaning and use of dummy variables in regression analysis

# **Course Outcomes**

On successful completion of this course, students will be able to;

- 1. Know the significance of Econometrics as a special branch of study;
- 2. Understand the basic two-variable and multiple-variable linear regression model;
- 3. Be able to deal with regression models when the assumptions are violated;
- 4. Get an idea about using regression models for prediction;
- 5. Know the use of dummy variables in regression models.

# Paper CEE301 International Economics

# **Course Objectives:**

- 1. To gain an understanding of various theories of international trade.
- 2. To examine the gains from trade and its distribution among the trading partners.
- 3. To understand the link between economic growth and international trade
- 4. To have an understanding of the effects of trade policy and regional trading blocs.
- 5. To examine the Balance of Payments and its adjustments.

# **Course Outcomes**

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

- 1. Understand the classical and neo-classical theories of international trade;
- 2. Analyse and apply the trade theories and theories of tariff;
- 3. Link international trade to economic growth;
- 4. Apply and analyze the different policies for BOP adjustments of developing countries like India;
- 5. Comment critically on and participate in current debates on international economic policy.

# Paper AEE301 Agricultural Economics

# **Course Objectives:**

- 1. To impart knowledge on applications of economic theories in the agricultural sector
- 2. To make students understand the linkage between agriculture and other sectors of the economy.
- 3. To delve into the factors impacting agricultural production and productivity.
- 4. To impart knowledge on new developments in the policy paradigms related to the agricultural sector.
- 5. To understand some basic issues of the agriculture sector.

# **Course Outcomes:**

After completing the course, the students shall have;

- 1. Deeper knowledge of different theories related to economic development and the agricultural sector;
- 2. An understanding of the linkage between agriculture and other sectors of the economy;
- 3. A clear concept of the determinants of agricultural production and productivity;
- 4. A knowledge about the policies relating to agriculture;
- 5. Increased interest in undertaking research activities related to aspects of the agricultural sector in India and Odisha.

# Paper AEE301 Financial Programming

# **Course Objectives**

- 1. Diagnosis of macroeconomic imbalances in an economy.
- 2. One-year projection of macroeconomic variables a baseline scenario.
- 3. Identification of economic vulnerabilities;
- 4. Gaining the ability to prepare an intersectoral adjustment mechanism through coordinated adjustment policies.
- 5. Provide a medium-term policy framework beyond one year.

# **Course Outcomes**

After completing the course, the students shall:

- 1. Be able to understand how macroeconomic policies interact;
- 2. Have improved forecasting ability, both in the short run and in the medium term;
- 3. Be capable of identifying vulnerabilities;
- 4. Have the ability to draft intersectoral adjustment policy mechanisms;
- 5. Gain interest in undertaking empirical research on public policies.

# Paper FEE301 International Finance

# **Course Objectives:**

- 1. To educate the students on different terms and concepts in international finance like exchange rate and interest rate determination
- 2. To have an understanding of the forecasting of exchange rates and interest rates.
- 3. To understand different forms of derivatives and their uses.
- 4. To analyze different financial risks in the international market.
- 5. To enhance the skill of the student to understand the activities in the international market.

#### **Course Outcomes:**

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

- 1. Understand the concepts used in the arena of international finance;
- 2. Appreciate the functioning of the international financial markets;
- 3. Have a fair idea about the management of the international financial markets;
- 4. Understand the determination of different exchange rates;
- 5. Gain knowledge about the way the foreign exchange market, the derivatives markets, and the capital markets function using futures, options, and swaps.

# Paper FEE302 Computational Economics

# **Course Objectives:**

- 1. To teach different aspects and steps involved in undertaking research work in social sciences.
- 2. To understand the concept of ethics in research.
- 3. To enable the students to use computers for data analysis and thesis writing.
- 4. To build the capacity of the students on using two popular computational packages such as SPSS and STATA widely used in industry.
- 5. To gain knowledge of some commonly used open-source software.

# **Course Outcomes**

On successful completion of this Course, students will have:

- 1. increased ability to observe social realities through the lens of a researcher;
- 2. Better ability to complete the dissertation work in Semester IV;
- 3. Understanding of the ethical concerns in social science research;
- 4. Increased employability in research organizations and the corporate sector;
- 5. Ability to use some open-source software for data analysis.

# Paper FEE303 Health Economics

# **Course Objectives**

- 1. To introduce a relevant theory of microeconomics and demonstrate its applicability to healthcare issues
- 2. To outline key principles of health economics
- 3. To be able to assess the efficiency and equity of the health sector.
- 4. To provide a foundation for and rationale for performing an economic evaluation of the health sector
- 5. To get an overview of Indian sector.

# **Course Outcomes:**

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

- 1. gain knowledge of the key analytical reasoning and tools of health economics and their normative foundations and ethical implications;
- 2. appreciate the basic economic theories and models of regulation applied to health care providers as hospitals and long-term care organizations and the health-related behavioral determinants and an overview of some recent policies aimed at improving the populations' lifestyles
- 3. use economic models to understand behaviors of actors in the health care sector, do analyses of needs for health care services, make analyses of efficiency and quality of health care organizations, find and utilize relevant data sources describing and use relevant econometric models for the analysis of the economic agents' behaviour
- 4. attain competence to apply economic concepts and models to the fields of demand for health, demand for health services, demand for health insurance, provision of health insurance and provision of health care;
- 5. gain competence to describe, analyse and critically address economic aspects of health care organizations

# SEMESTER IV Paper CEE401 Economics of Environment

# **Course Objectives:**

- 1. To be able to apply economic theories to understanding environmental issues.
- 2. To understand global environmental externalities and climatic change.
- 3. To be able to value environmental goods.
- 4. To examine the economics of natural resources.
- 5. To delve into the regulatory framework with regard to environment in India.

# **Course Outcomes**

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

- 1. Apply economic principles for environmental issues;
- 2. Select and apply appropriate economic techniques to solve environmental problems;
- 3. Measure the value of environmental goods;
- 4. Appreciate the economics of natural resources;
- 5. Get an overview of the policies with regard to the environment in India.

# Paper CEE402 Dissertation

# **Course objectives:**

- 1. To facilitate a student to carry out independent research on a topic of his/her choice.
- 2. To be able to identify a problem and the research gap in the area of interest.
- 3. To be able to choose the appropriate methodology for problemsolving.
- 4. To be capable of collecting data, primary or secondary for the purpose, analyze it, and interpret the findings.
- 5. To develop the ability to present the results in the context of national and international research and write the dissertation.

Presentation: 50 Marks and Hardcopy of Dissertation: 50 Marks

# Paper CEE 403 Rural Economics

# **Course Objectives:**

- 1. To introduce the concept of rural economics as a distinct branch of study with specific characteristics.
- 2. To understand the basic concepts, elements, determinants and theories of rural development.
- 3. To expose students to the policies and strategies for rural development.
- 4. To gain ideas about the rural development programs adopted in India.
- 5. To explore the role of planning and different institutions in achieving the development of rural areas of India.

# **Course Outcomes**

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

- 1. explain and analyze the concepts of rural development;
- 2. critically comment on and participate in current debates on rural development issues in India;
- 3. get an idea regarding the rural development programmes adopted in India;
- 4. understand the role of planning in rural development;
- 5. explore the role of different institutions in rural development.

# Paper AEE401 Financial Institutions and Market

# **Course Objectives:**

- 1. To educate the students on different concepts in financial institutions and markets.
- 2. To introduce students to the world of financial services.
- 3. To explore the roles of commercial and central banks, and that of the money and capital market.
- 4. To enhance the understanding of the students about organisation, operation and growth of financial systems.
- 5. To get an overview of Indian Financial System, Investment Banking in India and the recent developments and challenges ahead

# **Course Outcomes:**

On successful completion of this Course, students will be able to:

- 1. understand the financial system;
- 2. get to know about the structure and functions and equilibrium of financial systems;
- 3. understand the way the different rates of interests are determined;
- 4. appreciate the functioning and importance of different banking and non-banking financial institutions and their role in a developing economy;
- 5. explain the role and structure of money and capital markets.

#### Paper AEE 402 Mathematical Economics

# **Course Objectives:**

- 1. To impart skills in using mathematics as a language of communication and expression for economic analysis.
- 2. To use mathematical tools for analyzing consumption and production behaviour.
- 3. To build the capacity of students for applying mathematical tools such as game theory.
- 4. To expose students to the techniques of linear/non-linear programming.
- 5. To have an understanding of the general equilibrium models in economics research.

# **Course Outcomes:**

On successful completion of this Course, students will be able to:

- 1. Use mathematics as a tool for economic analysis;
- 2. increasingly use quantitative and mathematical tools in research activities;
- 3. apply game theoretic tools for analysing economic issues;
- 4. capable of using programming as an optimisation technique;
- 5. have increased employability in organisations engaged in economic research.

# Paper AEE 403 Advanced Econometrics

# **Course Objectives**

- 1. To provide a basic understanding of qualitative dependent variable models.
- 2. To be able to deal with lags in econometric modelling.
- 3. To be able to deal with situations when the when phenomena are assumed to be reciprocally causal.
- 4. To explore the relationships among multiple variables in a data set.
- **5.** Identifying the nature of the phenomenon represented by the sequence of observations.

# **Course Outcomes**

On successful completion of this Course, students will be able to:

- 1. Deal with qualitative dependent variables in regression models;
- 2. Deal with lags in econometric modelling;
- 3. Examine causality in economic relationships;
- 4. Handle simultaneous equation models;
- 5. Have a basic understanding of time series econometrics.

# Paper AEE 404 Economics of Gender and Development

# **Course Objectives**

- 1. To provide a critical overview of economic theories, methods and economic policy-debates from a gender perspective.
- 2. To cover major debates in gender economics relevant to developed and developing countries.
- 3. To analyze orthodox economic theory and provide students with a gender critique.
- 4. To explore alternative feminist economic theory and apply these different theoretical understandings to concrete examples in the real world.
- 5. To gain an insight into gender budgeting with special reference to India

# **Course Outcomes**

On successful completion of the course, a student should be able to demonstrate the ability to:

- 1. demonstrate a general understanding of the theoretical debates surrounding the construction of gender and gender relations in the discipline of economics;
- 2. critically examine and assess mainstream and heterodox economic theories and policies from a gender perspective;
- 3. evaluate the ways in which current economic realities in developed and developing countries have different effects on men and women;
- 4. identify the connections between feminist economic theory and feminist economic reality in developed and developing countries;
- 5. have an understanding of gender budgeting with special reference to India.

# Paper AEE 405

# Financial Inclusion and Economic Development

# **Course Objectives:**

- 1. To have a thorough understanding of the concepts of financial inclusion and exclusion.
- 2. To explore the relation between financial inclusion and economic development.
- 3. To be able to evolve the strategy for attainment of financial inclusion.
- 4. To develop an index for measuring financial inclusion
- 5. To understand the role of financial institutions, micro finance and micro insurance in financial inclusion.

# **Course Outcomes**

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

- 1. Have conceptual clarity regarding financial inclusion and exclusion;
- 2. Relate financial inclusion to economic development;
- 3. Learn and analyse the dimensions of financial inclusion and the progress of financial inclusion in India;
- 4. Understand how to develop an index for measuring financial inclusion;
- 5. Analyse the complexities associated with financial inclusion in India and the role of different institutions therein.