UNIVERSITY OF CALICUT
(摘要)

GENERAL AND ACADEMIC BRANCH – I ‘B’ SECTION


Read:
2. Minutes of the meeting of the Board of Studies in Economics (UG) held on 06.10.2008, 29.01.2009, 06.03.2009 and 05.05.2009.
3. Minutes of meeting of the Faculty of Humanities held on 08.05.2009 (Item No.I.1).
4. Minutes of the meeting of the Academic Council held on 14.05.2009 (Item No.II.G.1).

ORDER

The Rules and Regulations governing the UG curriculum under Choice Based Credit Semester System in the colleges affiliated to the University was implemented with effect from 2009 admission onwards vide paper read first above.

Vide paper read second the Board of Studies in Economics (UG) at its meeting held on 29.01.2009 resolved to conduct a five day workshop from 02.03.2009 – 06.03.2009 at Dr.John Mathai Centre. The Board of Studies in its meeting held on 05.05.2009 discussed the details of the curriculum and the syllabus drafted in the workshop and resolved to approve the same.

The Faculty of Humanities vide paper read third above approved the minutes of the meetings of the Board of Studies in Economics (UG) held on 06.10.2008, 29.01.2009, 06.03.2009 and 05.05.2009.

The Academic Council vide paper read fourth above have approved the minutes of the meeting of the Faculty of Humanities held on 08.05.2009 and the minutes of the meetings of Board of Studies coming under the Faculty.

Orders are therefore issued implementing the Scheme and Syllabus of BA Economics Programme under Choice Based Credit Semester System with effect from 2009 admission.

The Scheme and Syllabus appended herewith.

Sd/-
DEPUTY REGISTRAR (G&A–I)
For REGISTRAR.

To
The Principals of all Colleges offering BA Economics.

Copy to: CE/Ex Sec/EG Sec/DR/AR, BA Branch/
System Administrator (with a request to upload in the University website)/
/GA I ‘F’ Sec/Library/SF/FC/DF.

Forwarded/By Order

SECTION OFFICER
Towards a Revision of Curriculum and Syllabus of Undergraduate ECONOMICS Programme

Every branch of knowledge is evolving over time. This is the result of man’s quest for knowing more about himself and his societal environment. Economics is no exception to this process of evolution. A number of developments in the form of new theories and applications have already taken place in economics during the past few decades with a view to understand the economy, its actors their behavior and the consequent outcomes of their actions.

Generally, curriculum brings out the academic programme’s educational philosophy, specific objectives of learning and understanding of a discipline and implementation strategies as well as assessment and evaluation criteria. However, Syllabus traditionally represents the content of a given Course and specifies how this content is graded and sequenced. Syllabus refers to content or subject matter of a given discipline whereas Curriculum refers to the totality of the content to be taught and aims to be realised with in a given academic course period. Thus Curriculum subsumes a Syllabus.

Curriculum and Syllabus of Economics should therefore follow the above line of thinking. Regular updating of both Curriculum and Syllabus in Economics is unavoidable because the subject of Economics has a rapid growth as compared to most of the other social sciences and also being a discipline that touches day-to-day human lives in every society.

To quote UGC:

“Renewing and updating of the curriculum is the essential ingredient of any vibrant university academic system. There ought to be the dynamic curriculum with necessary additions and changes introduced in it from time to time by the respective university with a prime objective to maintain updated curriculum and also providing therein inputs to take care of fast paced development in the knowledge of the subject concerned. Revising the curriculum should be a continuous process to provide an updated education to the students at large”.

To put it in a broad sense, higher education especially in the field of social science must aim at:

- To train students to understand the society, economy and the world at large
- To equip them with the right analytical skills to acquire a ‘vision’
- To enjoy a life time learning.

It is necessary to repeat that the goal of higher education is two fold: Knowledge Creation and its utilisation through activities that are useful to the learners as well as the society.

Coming to the curriculum of Economics, our objective is to impart

- A knowledge of fundamental concepts and theoretical propositions
- A methodology by which economic ideas are framed, tested and modified
- An understanding of the institutions, social, political and economic that influence economic issues
- An ability to present one’s own analysis of the problems and issues in the language of an ‘Economist’

Teaching of Economics lack relevance if they do not help in the understanding of the laws of motion of the economy and society where one lives.
The idea is to make the student at the undergraduate level understand correctly the basic concepts and terms used in Economics and to give him an exposure to the way economic problems and issues are to be looked at without any bias.

For this, what is needed is a set of CORE courses and ELECTIVE courses. The core course may consist of two parts (a) Basic Concepts, terms and theories and (b) Application areas.

The first will have Papers like MICROECONOMICS, MACROECONOMICS, MATHEMATICS FOR ECONOMICS, POLITICAL ECONOMY OF DEVELOPMENT with special reference to INDIA and KERALA etc.

The elective courses will have, FINANCIAL ECONOMICS, PUBLIC ECONOMICS, INTERNATIONAL ECONOMICS, ENVIRONMENTAL ECONOMICS, HEALTH ECONOMICS, etc etc to enable the students to get an exposure to the application of what he is going to learn in CORE courses.

ELECTIVE Courses shall be short courses. A few of them are to be framed to suit ECONOMICS students and others specially suited to non-Economics students.
All elective courses should contain substantial active learning component to give depth to the curriculum. This includes writing reports, oral presentations, and research projects. This will reinforce the empirical skills students have acquired in the course on quantitative methods.

Finally, we suggest that students do a final research project that would complete the process of intellectual maturation. It will also provide further insight in the curriculum.

**Suggested Courses:**

We are offering 14 Core courses, Four complementary courses and two open courses with three electives each. The course work/ project work / visit are to be handled by the Economics faculty in each college. All these are presented in Table 1.

Table 1: Suggested Courses and Their Short Objectives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Code</th>
<th>Course Objectives</th>
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</thead>
<tbody>
<tr>
<td><strong>I Semester</strong></td>
<td></td>
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</tr>
<tr>
<td>Common Course I</td>
<td>EC1 A01</td>
<td>Detailed syllabus and objectives are to be provided by the University</td>
</tr>
<tr>
<td>Common Course II</td>
<td>EC1 A02</td>
<td>Seperately</td>
</tr>
<tr>
<td>Common Course III</td>
<td>EC1 A03</td>
<td></td>
</tr>
<tr>
<td>Core Course I</td>
<td>Microeconomics -1 EC1 B01</td>
<td>Teaches the fundamentals of microeconomics required for proper understanding of other courses.</td>
</tr>
<tr>
<td>I Complementary I</td>
<td>EC1 C01</td>
<td>Detailed syllabi and objectives are to be provided by the concerned Boards.</td>
</tr>
<tr>
<td>II Complementary I</td>
<td>EC1 C02</td>
<td></td>
</tr>
<tr>
<td><strong>II Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Course IV</td>
<td>EC2 A04</td>
<td>Detailed syllabus and objectives are to be provided by the University</td>
</tr>
<tr>
<td>Common Course V</td>
<td>EC2 A05</td>
<td></td>
</tr>
<tr>
<td>Common Course VI</td>
<td>EC2 A06</td>
<td></td>
</tr>
<tr>
<td>Core Course II</td>
<td>Macroeconomics – 1 EC2 A06</td>
<td>Teaches the fundamentals of macroeconomics required for proper understanding of other courses.</td>
</tr>
<tr>
<td>I Complementary II</td>
<td>EC2 B02</td>
<td>Detailed syllabi and objectives are to be provided by the concerned Boards.</td>
</tr>
<tr>
<td>II Complementary II</td>
<td>EC2 C04</td>
<td></td>
</tr>
<tr>
<td><strong>III Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Course VII</td>
<td>EC3 A07</td>
<td>Detailed syllaby and objectives are to be provided by the University</td>
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<tr>
<td>Common Course VIII</td>
<td>EC3 A08</td>
<td></td>
</tr>
<tr>
<td>Core Course III</td>
<td>Quantitative Methods for Economic Analysis – I EC3 B03</td>
<td>Teaches mathematical tools required for the study of undergraduate economics</td>
</tr>
<tr>
<td>Core Course III</td>
<td>Micro Economics – II EC3 B04</td>
<td>Develops the tools for further economic analysis.</td>
</tr>
<tr>
<td>I Complementary III</td>
<td>EC3 C05</td>
<td>Detailed syllabi and objectives are to be provided Separately.</td>
</tr>
<tr>
<td>II Complementary III</td>
<td>EC3 C06</td>
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</tr>
</tbody>
</table>

IV Semester

<table>
<thead>
<tr>
<th>Common Course IX</th>
<th>EC4 A09</th>
<th>Detailed syllaby and objectives are to be provided by the University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Course X</td>
<td>EC4 A10</td>
<td></td>
</tr>
<tr>
<td>Core Course V</td>
<td>Quantitative Methods for Economic Analysis II EC4 B05</td>
<td>Teaches Statistical tools required for the study of undergraduate economics</td>
</tr>
<tr>
<td>Core Course VI</td>
<td>Macroeconomics II EC4 B06</td>
<td>To develop the tools for further economic analysis.</td>
</tr>
<tr>
<td>I Complementary IV</td>
<td>EC4 C07</td>
<td>Detailed syllabi and objectives are to be provided Separately.</td>
</tr>
<tr>
<td>II Complementary IV</td>
<td>EC4 C08</td>
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</tbody>
</table>

V Semester

<p>| Core Course VII | Computer Application for Economic Analysis EC5 B07 | Develops the tools for further economic analysis. |
|------------------|---------------------------------------------------------------|
| Core Course VIII | Indian Economy EC5 B08 | Introduces the Political economy of development of Indian economy. |
| Core Course IX | History of Economic Thought EC5 B09 | Introduces the chronological development of the science of economics |
| Core Course X | Kerala Economy | Introduces the macro aspects of the |</p>
<table>
<thead>
<tr>
<th>Elective Course (For Economic Students)</th>
<th>EC5 B10</th>
<th>development of Kerala Economy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Economics</td>
<td>EC5 D01</td>
<td>Introduces the fundamental principles of gender awareness</td>
</tr>
<tr>
<td>Health Economics</td>
<td>EC5 D02</td>
<td>Teaches the fundamental aspects of Health and its emerging issues.</td>
</tr>
<tr>
<td>Economics of business and Finance</td>
<td>EC5 D03</td>
<td>Introduces the students to the basics of business, managerial and financial economics.</td>
</tr>
<tr>
<td>Course / Project/Visit</td>
<td>EC5 B15 (Pr.)</td>
<td>Application of what is taught.( Group activity)</td>
</tr>
</tbody>
</table>

**VI Semester**

| Core Course XI | Mathematical Economics & Econometrics | EC6 B11 | Introduces basic econometric and Mathematical Economic methods that will be applied in subsequent courses. |
| Core Course XII | Public Finance                         | EC6 B12 | Introduces the role of public / governmental activities expenditure in the functioning of an economy. |
| Core Course XIII | International Economics              | EC6 B13 | Introduces the theories, and policies related to international economic relations. |
| Core Course XIV | Political economy of development and Planning | EC6 B14 | Introduces the basic theories and issues of development and planning. |
| Open Course I (For Non-Economic Students) | Basic Principles of Economics | EC6 E01 | Introduction to the fundamental principles of Economics. |
| | International trade and Business      | EC6 E02 | Introduction to international trade theories and practices. |
| | Banking                              | EC6 E03 | Introduces the theory and practice of banking |
Complementary Courses

1. Essentials of Economics.
2. Co Operation
3. Banking
4. Mathematical tools for economics

(Plus other complementary courses offered by sister departments)

Suggested Contents:

The contents of each course listed above cover most of the important and the latest theoretical and empirical developments in their respective fields.

Suggested Reference:

We propose a list of books as the required textbooks for each course. We also provide additional reading list for every course.

Suggested Teaching Method:

The current practice of teaching Economics is to give lectures that dominate theories. This method often gives students a mistaken impression that economics is devoid of any practical and real-life use or applications. So we suggest to incorporate as many real-life examples as possible in the process of teaching. Reference books contain plenty of examples from different fields of the subject. One can improve this with the aid of modern communication devices.

Suggested Assessment and Evaluation Methods:

We follow the directions put forward by the University with regard to assessment and evaluation. As per these directions, there will be examinations conducted by the University at the end of each semester. There will be an internal assessment that carries 25 percent of marks. The internal assessment is further split up as follows. Attendance, (Five marks), two test papers,(Five Marks) seminar and viva voce (Five marks) assignment and Record (Ten Marks). With respect to evaluation, performance of a student is evaluated in terms of grades. The University directs to use direct-grading with a 5-point scale.

CORE COURSES

Semester I
I. Microeconomics - I

a. Introduction:
Education in Economics begins with a study of the most fundamental ideas that govern economic activities. A beginner normally commences the study of these ideas with two courses in the methodology and principles of economics. The first course covers the simple relations that are concerned with the economic behavior of individual economic agents. This course is called microeconomics I. It will introduce the students to the basic ideas and tools that will be utilized throughout in other courses of the degree programme.

b. Objectives:
This course is intended to provide students a basic idea in microeconomics and its methodology. The main objective of this course is to equip students with the basic idea of economic analysis.

c. Learning Outcome:
With this course, students are expected to learn the simple relationships and ideas in the theory of consumption, production, cost and revenue.

d. Syllabus

Module -I Introduction to Social Sciences:
Relevance of Social Sciences in understanding and solving cotemporary problems at regional, national and global levels

Module-II Introduction to Micro Economic Theory

Module-III: Basic demand supply analysis
Market analysis-market demand and market supply-market equilibrium-adjustment to changes in demand and supply / static and dynamic analysis- comparative static analysis, Algebraic explanation to market equilibrium, market demand and elasticity, Types of elasticity-price, income & cross elasticity, measurement of elasticity, MR and price elasticity, Elasticity of supply. Determinants of elasticity, uses of elasticity,

Module IV-Consumer Behaviour and Demand
Module V-Production/ Cost and Revenue


Reference

2 A. Koutsoyannis : Modern Microeconomics, - Mac millon
4 Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education

Additional Readings


Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.
Semester II :
Macroeconomics -I

a. Introduction:

The study of economics begins with the fundamental ideas of economic actions. The second fundamental course i.e. macroeconomics. I offer the students a view on the economy as a whole. This course will introduce the students to the basic ideas and tools that will be utilized throughout in the other courses of the degree programme.

b. Objectives:

This course is intended to provide students with the basic ideas in classical and Keynesian macroeconomics.

c. Learning Outcome:

With this course, students are expected to learn the relationships and ideas in the measurement of national income, the theory of income determination, fiscal and monetary policies, the government and its role in the functioning of the economy, etc.

d. Syllabus

Module 1: Why study Economics
A Methodological framework of studying Economics – Its relevance and important

Module 2: Macro Economic Concepts & Models
Macro - Economic Models – Exogenous, Endogenous, ex-ante, ex-post, Nominal, real, dependent and independent variables – Identities and Equations.

Module 3: Classical Macro Economic Model

Module 4: Keynesian Macro Economic Model
Module 5: Elementary IS LM Model (Two Sector only)

Definition & Derivation of IS and LM curves – General Equilibrium using IS & LM curves.

References:
6. Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education

Additional Readings

Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.

Semester III:
Quantitative Methods for Economic Analysis - 1

a. Introduction:
Economics is increasingly becoming quantitative in nature. Students of economics today need a variety of quantitative skills. Mathematical skills have also become an essential element in the toolkit for higher education.

b. Objectives
The students is to develop skills in mathematical techniques that are required for a meaningful study of both theoretical and applied economics.

c. Learning Outcome
This course in quantitative methods will cover the essential topics in mathematics. Needed for Economic analysis.
d. Syllabus

Module I - Algebra

Exponents and Logarithms - Arithmetic and Geometric Progression- Equations-Types and solutions of Linear, Quadratic and Simultaneous Equations up to three unknowns. Set Theory-Types and Set Operations, Domain and Range of Set.

Module II - Basic Matrix Algebra

Matrices-Types, Matrix manipulations and their rules, Order of Matrix, Transpose of Matrix- Determinants up to order 3x3- Properties and Value of determinant, Minor and Cofactor, Inverse and Cramer’s Rule.

Module III Functions and Graphs

Types of Functions- Rectangular Co-ordinate System and graphs of functions - Slope and Intercept - Equations of straight lines.

Module IV - Differential Calculus


Module V - Financial Mathematics

Growth rate: Simple and Compound, Depreciation- Time Value of Money- Future and Present Value, Compounding and Discounting, Net Present Value and Internal Rate of Return. (Mathematical proof of Theorems is not necessary.)

Reference:

Semester III
Microeconomics-II

a. Introduction:
This part of the syllabus focuses on the particulars of the market. It attempts to explain how a particular market functions;

b. Objectives:
It is designed to introduce undergraduate students to the fundamental concepts of the markets and its structures. The objective of the course is to apply principles of microeconomic analysis to the day-to-day decision-making of firms and market.

c. Learning Outcome:
It is expected to develop skills in students in understanding the functioning of various types of market. This crucial skill will certainly help students in understanding and solving economic problems of the society, make policy.

d. Syllabus

Module 1: Market Structure – Perfect Competition:
Price determination in the market period – Short period and long period / Equilibrium of the firm – Efficiency implications of the firm.

Module 2: Imperfect Competition – Monopoly:

Module 3: Monopolistic Competition:
Monopolistic competition price and output determination – short run and long run - Product differentiation – selling cost – non-price competition – Chamberline’s group equilibrium and the concept of excess capacity.

Module 4: Oligopoly:
Features and types of oligopoly – Kinked demand curve theory.

Module 5: Factor pricing
Input pricing and employment under perfect competition – profit maximization and optimal employment – demand curve of a firm for an input – market demand curve for an input and its elasticity – Supply curve of an input – pricing and employment of an input.

Recommended Readings:
A. Koutsoyannis : Modern Microeconomics,
Additional Readings


Note: Case study analysis may be included while teaching various topics, wherever relevant. This may be used for assignments and internal examinations only.

Semester IV
Quantitative Methods for Economic Analysis – II

a. Introduction

Students of economics today need a variety of statistical skills to collect and analyse and interpret empirical data. They also require these skills for advanced studies in empirical-oriented fields. Statistical skills have become an essential toolkit for most branches of economics.

b. Objectives

This course is intended to provide students an introduction to statistical methods and tools that are used in the study of economics at undergraduate level. The aim of this course is to develop skill in statistical techniques that are required for a meaningful study of applied economics and for carrying out empirical research.

c. Learning Outcome

Students are expected to acquire statistical skills that are necessary for further study in most branches of economics.

d. Syllabus

Module I. Meaning of Statistics and Description of Data


Module II. Correlation and Regression Analysis

Correlation- Meaning, Types and Degrees of Correlation- Methods of Measuring Correlation- Graphical Methods: Scatter Diagram and Correlation Graph; Algebraic Methods: Karl Pearson’s Coefficient of Correlation and Rank Correlation Coefficient - Properties and Interpretation of Correlation Coefficient- Simple linear regression- Meaning, Principle of Ordinary Least Squares and Regression Lines.

Module III. Index Numbers and Time Series Analysis

Index Numbers: Meaning and Uses- Unweighted and Weighted Index Numbers: Laspeyre’s,

Module IV. Vital Statistics

Vital Statistics: Meaning and Uses- Fertility Rates: Crude Birth Rate, General Fertility Rate, Specific Fertility Rate, Gross Reproduction Rate and Net Reproduction Rate - Mortality Rates: Crude Death Rate, Specific Death Rate, Standardised Death Rate, Infant Mortality Rate and Maternal Mortality Rate-Sex Ratio and Couple Protection Ratio.

• Proof of Theorems is not necessary (Applicable to all modules)

Reference:
2. Gupta S. P, Statistical Methods, Sultan Chand and Sons, New Delhi.

Semester IV

Macroeconomics-II

a. Introduction:

Policy makers all over the world use macroeconomic theories and related empirical results to frame policies. Similarly, business firms, use these theories and results to formulate their strategies. A sound understanding of macroeconomic principles and their applications is essential for students of Economics.

b. Objectives:

The objective is to familiarise the students in the application of principles of macroeconomic analysis to the day-to-day decision-making in the aggregate economy.

c. Learning Outcome :

This course is expected to develop skill in economic reasoning, This vital skill is expected to help them in understanding and solving aggregate economic problems.

d. Syllabus

Module 1: Theories of Money

Nature and Functions of Money - Types of Money: Near money, inside money and outside money.

2. Theories of Supply of money: - Defining supply of money - Measuring supply of money - High powered money & money multiplier

**Module 2: Theories of Inflation and Unemployment**

Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Meaning and types of unemployment. - Cost of unemployment and Okun’s Law - Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Module 3: Macroeconomic Instability and Policy:**

Business Cycle: meaning, types and phases. - Monitary, Fiscal, and income policy - Meaning and Instruments.

**Module 4: Open Economy Macroeconomics:**

a. Foreign trade multiplier - Four sector macro economic model Using IS-LM-Balance of Payment Schedule

**Reference:**


**Semester V**

**Computer Applications in Economics**

**a. Introduction:**

Information technology has revolutionised the way we live and work. Economics is relatively more quantitative in nature than many other social sciences. Thus computer application has assumed utmost significance in Economics. Many of the large models in macroeconomics such as input-output models, national income estimation models, etc., require applications of computer programmes. Similarly, Computer application will facilitate in-depth studies in other branches of Economics.

**b. Objectives:**

This course will provide the students with a skill that is that is useful both in job market and in academia.

**c. Learning Outcome:**

It is expected to provide the students with those computing skills that are necessary for success. This course will arm the students with the knowledge of fundamentals of computers.
d. Syllabus

Module 1. Philosophical foundations of Computing
Software - Philosophy of open source software – social computing – Operating systems

Module 2. Creation and Manipulation of Documents

Module 3: Data Analysis

Module 4: Database Management

Module 5: Preparation of Presentations

Module 6: The Internet and E-Commerce
Meaning and scope of the Internet. Creating, sending and receiving e-mails. Browsing the WWW. Downloading from and uploading to the Internet. Online shopping and e-business/e-commerce, E-market. (Concepts)

Note: 25 marks for this paper are from internal examination. Internal marks should be awarded based on practical examinations. Expected practical sessions for teaching: 20 hours.

Reference
2. Sharma D - Fountations of IT- Excel books.

Semester : V

Indian Economy

a. Introduction :
Indian economy has already undergone much changes. This transformation is still taking place in every sector of the economy. However, many of the basic problems of the economy still Existing . These include poverty, inequality, unemployment, infrastructural bottlenecks, demographic issues, and so on. A student of economics must have a clear understanding of the extent of success and failures of the economy.
b. Objective:
This course aims at giving students a reasonable introduction to Indian economy. The course will concentrate on both the achievements and the issues of the economy.

c. Learning Outcome:
The students will, acquaint with a good understanding of the structure achievements, issues and prospects of Indian economy.

syllabus

Module 1: Resource Base and Structure of Indian Economy

Module 2: Agriculture
Trends and Composition of Output of major crops. - Trends in Investment, Credit and Agricultural Subsidy. - New Agricultural strategy of 1960s (Green Revolution) - Food security and PDS in India - Evaluating Land Reforms in India - New Agricultural Policy (In the context of liberalization.)

Module 3: Industry

Module 4: External Sector
Trends and composition of India’s Imports - Trends and direction of India’s Exports - EXIM Policy of India in relation to trade liberalization and its impacts-FDI, FII and MNCs in India - External Borrowing and BOP problem in India - International Institutions (IMF, WB, ADB, WTO) and the Indian Economy.

Reference:
4. Amit Bhaduri, Development with Dignity. (2005) NBT New Delhi Additional Reading:
5. IC. Dhingra : Indian Economy Environment and policy – Sultan chant and sons.

Additional Reading
a. Introduction:

History of Economic thought is concerned with chronological or school wise listing of major contributions that took place in the science of economics. This course provides the students solid background to the development of theories and problems of contemporary economics.

b. Objectives

The course is expected to develop a strong understanding of the development of important concepts, theories and ideas of economics.

c. Learning outcome

The students will have a thorough understanding of the development of economic ideas. It will also help to understand the theoretical framework Economics.

d. Syllabus

Module I: Introduction and Early Economic Thought

Why study History of Economic Thought? – Economic Ideas of Aristotle, Plateau – Iben Khaldun - St. Thomas Aquinas – Main Economic Ideas of Mercantilists and Physiocrats (mention important economists of Mercantelism and Physiocracy and their major works. Need not go into the details)

Module II: Classical, Socialist and Marxian School


Early Socialists: ideas of Owen, Fourrier, saint Simon, Sismondi

Basic tenets of Marxian Political Economy: stages of development – theory of surplus value, theory of capitalist crisis

Module III: Marginalism and Neo-classical School

Marshall in Neo-classical economics (avoid micro-economic theories)

**Module IV: Keynes and Post-Keynesians**
Keynes as a critic of Classical Economics (introduce important books of Keynes). Keynesian concept of Welfare State

Post-Keynesian developments – monetarism, rational expectation school, neoliberalism, dependency school and neo-institutionalism (details are not expected).

**Module V: Indian Economic Thought**

Introduce important Indian economist like MG Ranade, DR Gadgil, CN Vakil, PR Brahmanada, Pranab Bardhan, KN Raj, PC Mahalanobis, VKRV Rao, IG Patel, Sukhamoy Chakraborty, Amartya Sen, CT Kurian, Krishna Bharadwaj, Prabath Patnaik, JN Bhagawathi and Amith Baduri (Just to familiarise)

**Reference:**
1. Louise Haney - History of economic Thought – Surjith publication New Delhi
2. Eric Roll – History of Economic thought – Faber Lendon
4. AK Das Guptha – Indian Economic Thought

**Semester V**

**Kerala Economy**

**a. Introduction:**
Kerala Economy is famous of her ‘Model of Development’) A student of any economics programme on Kerala is expected to possess a good understanding of Kerala Economy

**b. Objectives**
The Course provides an introduction to the performance, prospects and problems of the Kerala economy. The course is aimed at understanding issues related to the society and polity of the state of Kerala.

**c. Learning Outcome**
Students are expected to develop a knowledge of the broad frame work of the economy of Kerala.
d. Syllabus

Module I : Structure of Kerala Economy

Structural composition – Primary, Secondary and Tertiary Sectors – changes over the years NSDP, GSDP and PCI. Contribution of productive vs. service sectors. Poverty profile in Kerala.

Module II: Development Experience:
Economic development vs. social development – PQLI & HDI. Concept of “Kerala Model:- Decentralized Planning & Development–Peoples Planning in Kerala.

Module III: Population and Demography
Demographic transition in Kerala – Features of population as per the latest census report. Employment, unemployment work participation rate.

Module IV Feature of Development sectors

a) Agriculture: Cropping pattern – Area and production of major crops – Paddy, Coconut, Rubber - Land Reforms in Kerala, an overview.
b) Industry: Ownership and types of industries, traditional and modern.
c) Trade: Imports and Exports, major items.
d) Education:- Features of primary, secondary, higher & professional Education in Kerala - New Challenges.
e) Health: Changes in the Health Profile of Kerala – Emerging issues.

Module –V: Impact of Emigration and migration.

Reference
1. Centre for Development Studies – Poverty Unemployment and Development Policy - Trivandrum
3. V.K. Ramachandran on Keralas Development Achievements. In Sen & Dreeze – India Selected Regional Perspectives. - Oxford
6. K. C. Sackaria et.al Kerala is Gulf Connections. –CDS Thiruvandapuram.

Semester VI
Mathematical Economics and Econometrics

a. Introduction

Mathematical economics is an approach to economic analysis where mathematical symbols and theorems are used. Modern economics is analytical and mathematical in structure. Thus the language of mathematics has deeply influenced the whole body of the science of economics. Every student of economics must possess a good proficiency in the fundamental methods of mathematical economics.

One of the significant developments in Economics is the increased application of quantitative methods and econometrics. A reasonable understanding of econometric principles is indispensable for further studies in economics.

b. Objectives

This course is aimed at introducing students to the most fundamental aspects of mathematical economics and econometrics. The objective is to develop skills in these. It also aims at developing critical thinking, and problem-solving, empirical research and model building capabilities.

c. Learning Outcome

The students will acquire mathematical skills which will help them to build and test models in economics and related fields. The course will also assist them in higher studies in economics.

d. Syllabus

Module I. Introduction to Mathematical Economics

Mathematical Economics: Meaning and Importance- Mathematical Representation of Economic Models- Economic functions: Demand function, Supply function, Utility function, Consumption function, Production function, Cost function, Revenue function, Profit function, Saving function, Investment function
Marginal Concepts: Marginal utility, Marginal propensity to Consume, Marginal propensity to Save, Marginal product, Marginal Cost, Marginal Revenue, Marginal Rate of Substitution, Marginal Rate of Technical Substitution
Relationship between Average Revenue and Marginal Revenue- Relationship between Average Cost and Marginal Cost - Elasticity: Demand elasticity, Supply elasticity, Price elasticity, Income elasticity, Cross elasticity- Engel function.

Module II. Constraint Optimisation, Production Function and Linear Programming


Module III. Market Equilibrium

Market Equilibrium: Perfect Competition- Monopoly- Discriminating Monopoly

Module IV. Nature and Scope of Econometrics

Econometrics: Meaning, Scope, and Limitations - Methodology of econometrics - Types of data: Time series, Cross section and panel data.

Module V. The Linear Regression Model

Origin and Modern interpretation- Significance of Stochastic Disturbance term- Population
Regression Function and Sample Regression Function-Assumptions of Classical Linear regression model-Estimation of linear Regression Model: Method of Ordinary Least Squares (OLS)- Test of Significance of Regression coefficients : t test- Coefficient of Determination.

Reference:

3. R.G.D Allen, Mathematical Economics
4. Mehta and Madnani -Mathematics for Economics
5. Joshi and Agarwal- Mathematics for Economics
6. Taro Yamane- Mathematics for Economics
8. Koutsoyiannis; Econometrics.

Semester VI:
Public Finance

a. Introduction:

Public finance or fiscal economics deals with the fisc of the country. It is related to decision making in the public sector or finance of the governmental agencies. A training in public finance will help students in decision making and in higher studies.

b. Objectives:

The basic aim of this course is to introduce students to the application of the techniques, methods and principles of Economics to decision making in public finance.

c. Learning Outcome:

The students are expected to learn how the principles of economics can be applied to sound decision making in public finance. They are expected to learn all the important economic issues that government agents face.

d. Syllabus

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<td>Sources of public revenue Taxes - Classification of Taxes - Canons of Taxation, Principles of Taxation. Ability, Benefit and cost of service- Impact, Incidence and shifting of Tax Burden — Effects of Taxation – Major Taxes in India. Value Added Tax in India , The concept of goods and service tax (GST)</td>
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<td>Meaning – Principles of Federalism – Finance Commission (Finance Commission Report – Latest) - Importance of Local finance in India</td>
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</tbody>
</table>

References

1. R.A Musgrave and PB Musgrave – Public finance – Tata Macgrail
6. Lekhy Public Finance and Public Economics – Kalyani publications,

Additional Reading

3. Economic Review – Govt of Kerala
4. Economic survey Govt of India
Semester VI :
International Economics

a. Introduction :

International economics deals with the economic relations – among nations - both trade and financial. A good understanding of international economics is necessary of student of Economics and those who wish to work in these areas or governmental organizations.

b. Objectives :

The basic aim of this introductory course on international economics is to present before the students the questions, and answers, related to international economic relations.

c. Learning Outcome:

The students are expected to acquire skill that will help them to take rational decisions in issues related international economics.

d. Syllabus

Module 1: Introduction to International Economics
Importance of International Trade - Internal Trade and International Trade

Module 2: Theories of International Trade

Module 3: Theory of Commercial Policy:
Arguments for and against Free Trade - Arguments for and Against Protection - Methods of Trade Restriction: Tariff – Non-Tariff trade barriers – Dumping, export subsidy and Countervailing duties. (Concept only) - Economic Integration EU, NAFTA, ASEAN, SAARC, WTO.

Module 4: Foreign Exchange:
Defining foreign exchange and exchange rate - Components of foreign exchange reserve. - Different systems of exchange rate determination: gold standard (Mint Parity), PPP, Floating exchange rate, Fixed and Flexible Exchange rate. (Concepts only) - Devaluation, revaluation, depreciation and appreciation.

Module 5: Balance of Payments
Defining Balance of Trade and Balance of Payment. - Equilibrium and disequilibrium in BOP - Measures to correct BOP disequilibrium. - BOP in India.

Reference:
2. C.P. Kindle Berger ‘International Economics’
Semester VI :

The Political Economy of Development and Planning

a. Introduction :

This course on the political economy of development and planning attempts to answer questions related to economic development in a comprehensive manner. Student who wish to take up position in formulation and implementation of public policy must have a reasonably good understanding of its political economy aspects.

b. Objectives :

The main objective of this course is to introduce the students of such fundamental topics in development and planning with their inter relations. This course is expected to provide students a comprehensive approach towards issues related to development and planning.

c. Learning Outcome :

The students are expected to develop an interrelated to approach to resource use, the relationship between man and man and man and nature.

d. Syllabus

Module I: Perspectives on Development Economics


Module II: Theories of Development

Low-level equilibrium trap, vicious circle of poverty, critical minimum effort, Big Push theory, Balanced versus Unbalanced theory.

Module III: Economic Planning

Concept, meaning and types of planning, technique of planning, project formulation and evaluation – Cost-Benefit Analysis. Market versus planning. Relevance of planning in the context of globalisation.

Module IV: Economic Planning India

Indian planning in a historical perspective, Bombay plan, Gandhian Plan, People’s plan. Five-year plans in India – an overview. Details of current five-year plan.
Module V: Issues in development

Poverty – measurement and classification, Inequality and its measurement (Gini coefficient), gender issues – the concept of missing women. environment versus development – the concept of sustainable development, limits to growth, global warming.

Reference:

1. A.P. Thirlwal ‘Growth and Development’, palgrave
2. M.P. Todaro SC Smith ‘Economic Development’ Pearson Education
5. Lester R. Brown – Eco Economy – Orient Long man

(Semester V)

Elective Courses To Economics Students

I. Gender Economics

Module I - Introduction

Definition of Gender- Gender and sex - Gender Equity and Gender Equality-Gender Development-Human Development Index and Gender Development index-Gender Disparity Index-Gender Empowerment Measure- Gender Status in India and Kerala -Sex Ratio-Concept of Missing Women.

Module II - Gender Discrimination in India and Kerala


Module III - Gender Budgeting

Gender awareness in planning- Invisibility of Women’s Work in Budgeting- How to Adjust our Budgeting Policies to Reduce Gender Disparities.

Module IV - Gender Issues in Contemporary World

Women and Globalisation- Social and Economic Empowerment of Women- Technology and Gender., for example Internet and Blogs.

Reference:

1. Gita Sen and Canen Crown; Gender and Class in Development Experience
2. Leela Gulati and Ramalingam; Kerala Women: A profile
3. Neera Desai and Maithreyi Krishnaraj; Health-A Gender Issue in India
4. Lourdes Beneria and Savithri Biswanath; Gender and Development: Theoretical, Empirical and practical Approaches
5. Lekha Chakraborti; Invisibility of Women’s Work in Budgeting.
6. National Institute of public Finance and policy (NIPFP); Gender Budgeting in India,
II. Health Economics

Module 1: Introduction to Health Economics:
Defining Health Economics. Importance of Health Economics – Essential Features. Concepts: Health, Health Care, Birth rate, Fertility rate, Death rate, IMR, CMR, MMR, Morbidity rate (Acute and Chronic), Disability Adjusted Life Year (DALY), Quality Adjusted Life Year (QUALY), Sex Ratio.

Module 2: Demand and Supply of Health Care:

Module 3: Health Financing & Policy::

Module 4: Health Statistics in India and Kerala:
Infrastructure and Health Status of India & Kerala using informations from NSSO, NFHS, CRS and SRS.

References :
1) V. Ramankutty – A Premier of Health System Economics (2007) Allied publications New Delhi

III. Economics of Business and Finance

Module 1: Introduction:
Module II: Investments –

meaning, nature and importance. Considerations in Investment decision and investment process – Investment alternatives – Capital Budgeting – Introduction and methods

Module III

Organising Financial assets – various financial assets and securities.

Introduction to Balance Sheets – Evaluation of Balance Sheets – Break even Analysis – Linear and non-linear – time value money

Future Value and Compounding – present value of discounting.

Module IV

Introduction to Demand Estimation, Demand forecasting – Production Function and its importance – Cost estimation, Cost functions – Economics of Scale, Cost cuts and estimation – Cartel, price leadership, price discrimination, pricing strategies.

References:


(Semester VI)

Open Course for Non-Economic Students

I Basic principles of Economics

Module 1: Economic Issues, Concepts and the Methods of Economics


Module 2: Demand, Supply, Price Determination, Elasticities, and Consumer Behavior


Module 3: Theory of Production, Costs and Market Structures

Module 4: Macro economics and the Measurement of National Income:


Module 5: Income Determination, Inflation, Unemployment, and Fiscal and Monetary Policies

  Classical theory – postulates, Say’s law, and classical theory, consumption function, saving function, GDP, changes in GDP, income or investment multiplier. Inflation – meaning, measures, types, effects and theories. Fiscal and monetary policies: meaning, instruments, and effects on distribution, growth, stability and production. Financial crisis.

Reference
2. Saumyan Sikdar – Principals of Macro Economics. - Oxford

II. International Trade and Finance

Module 1: Introduction to International Trade

  Importance of International Trade - Inter-dependence among countries - The concept of ‘Trade as an engine of Growth’

Module 2: Basic Theories of International Trade

  Absolute advantage - Comparative advantage – Heckscher Ohlin arguments for and against free trade

Module 3: Foreign Exchange and Balance of Payment

  Components of foreign exchange - Exchange rate determination (mention floating and fixed exchange rate; specify mint parity, PPP and supply and demand) - Devaluation, revaluation, appreciation and depreciation of currency. – BOP and BOT - Disequilibrium in BOP - Full and partial Convertibility

Module 4: International Finance


References:

III. Banking

Module 1:

  Banks, Evolution and Economic Importance, Growth of Banking in India.

Module 2:

  Commercial Banking - Branch Banking Vs Unit Banking, Group Banking, Chain

**Module 3:**
Negotiable Instruments, Cheques, Bills, Treasury bills, Acceptance Houses, Discounts, Money Market, Peculiarities of Indian Money Market; Deposits; Borrowings; Primary and Secondary sources, Loans, Practices in Lending, Credit creation, Limitations.

**Module 4:**

**Module 5:**
Central Banking: Evolution Functions- Reserve Bank of India. - Development Banking in India. - Emerging trends in capital market.

**Reference:**
1. R.S. Sayers, Modern Banking. Macmillon
2. M.D. Decock, Central Banking.
3. S.K. Basu, Banking in India.
5. I.C. Dhingra, Indian Economy. - Sulthan chand and sons

**Complementary Courses**

**Semester – I**

**Essentials of Economics – Micro**

**Module I: Introduction to Economics**
What Economics is about? - Importance of the study of economics, relation with other social sciences (History, Political Science, Law, Psychology, Sociology). Basic Problems.

**Micro versus Macro**

**Module II: Theory of Demand**
Utility, utility function, marginal utility, law of diminishing marginal utility, demand, law of demand. Elasticity of demand and its types.

**Module III: Theory of Supply**
Cost, cost function, opportunity cost, variable cost, fixed cost, total cost, marginal cost, average cost, supply, supply function, supply curve, Elasticity of supply and its types.

Equilibrium price, market and its classification

**Module IV: Theory of Production**
Production function, types of production function (short run and long run), economies of scale

**Reference**
Semester – II

Essentials of Economics – Macro

Module I: National Income Concepts and Meaning
GDP and GNP, NDP and NNP. GDP at factor cost and market price, GNP at market price and factor cost, NDP at market price and factor cost, NNP at market price and factor cost. Personal Income, disposable income, per-capita income. Importance of the estimation of national income, difficulties in estimation of national income.

Module II: Major Classical Postulates
Say’s Law of Market, Full employment, wage-price flexibility, laissez-faire

Module III: Major Keynesian Concepts
Effective demand, consumption, savings, under-employment equilibrium, wage-price rigidity

Reference
1. Diwedi DN ‘Macroeconomics Theory and Policy” Tata Magragel

Semester – III

Essentials of Economics – Money, Banking, Finance and Trade

Module I: Money
Definitions and functions of money, demand for and supply of money, Fischer’s quantity theory of money, inflation and deflation

Module II: Banking
Role and functions of commercial banks and central bank, monetary policy and its instruments, credit instruments (cheque, draft etc)

Module III: Public Finance
Public revenue and its sources, public expenditure, public debt, deficit financing, fiscal policy, budget, finance commission.

Module IV: Trade
Internal and External Trade, Why international trade?, balance of trade and balance of payment, foreign exchange rate, devaluation, revaluation, depreciation, appreciation.

Reference
1. Diwedi DN ‘Macroeconomics Theory and Policy” Tata Magragel
2. Salvetor D and EA Diulio – Principals of Economics Schuam’s Outline Series

Semester – IV

Essentials of Economics – Indian Economy

Module I: India as a Developing Economy
   Major Issues: poverty, unemployment and inequality - causes and remedies

Module II: Major Sectors of Indian Economy

Module III: Planning
   Economic planning and its objectives; five year planning in India – achievements and failures

Module IV: Kerala Economy
   Unique features, sectoral contribution, land reforms, decentralized planning, people’s planning, achievements and challenges in Health and Educational Sectors, Role of Migration and remittances, tourism and development

Reference
   1. Uma Kapila – (Ed) Indian Economy Since Independence – Academic Fountation – New Delhi
   2. Keralapadhanam - KSSP Kozhikode

II. CO-OPERATION

Semester I
Co-operation 1

Module 1: Principles and Problems of Co-operation:
   Meaning and Significance of Co-operation; Co-operation and other business enterprises; Problems of Co-operation, Role of Co-operatives in a dynamic economy.

Module 2: Practice of Co-operation in Foreign Countries:
   Co-operative Movement in Germany, England, Denmark, Ireland, Japan, Italy, France, International Co-operative Alliance.
Semester II
Co-operation 2

Module 1: Practice of Co-operation in India:

Module 2: Co-operative Banking:
Principles and Policy, Rural Primary Agricultural Credit Societies, Central Co-operative Banks, Banking Unions, State Co-operative Banks, Land Development Banks, Institutions in Aid Co-operative Banks.

Semester III
Co-operation 3

Module 1: Agricultural Co-operatives:
Co-operative production, Co-operative Vs Collective Farming, Co-operative Supply (Service Co-operatives), Co-operative Marketing, Co-operative Processing, Co-operative Storage and Warehousing.

Module 2: Non-Agricultural Co-operatives:
Consumers’ Co-operatives, Co-operative Housing, Urban Co-operative Credit Societies, Industrial Co-operatives, Workers’ Co-operative, Dairy Co-operatives.

Semester- IV
Co-operation 4

Module 1: Human Resource Development in Co-operatives:

Module 2: Role of Co-operatives in a Liberalised Financial situation.
Analysing Vaidyanathan Committee Report – History & Role of Co-operative Movement in Kerala - Co-operatives and SHGs – Kudumbasree in Kerala, co operatives and de centralisation

Reference :
2. E.S. Bogardus, Principles of Co-operation.


III. BANKING

Semester I
Banking 1

Module 1:
Banks, Evolution and Economic Importance, Functions, Growth of Banking in India.

Module 2:
Commercial Banking, Branch Banking Vs Unit Banking, Group Banking, Chain Banking, Mixed Banking, Clearance Banks, Balance sheet, Rules of Management of funds, Assets, Liabilities, Financial Intermediaries, Bank Failures, Deposit Insurances, Merchant Banking, Nationalisation of Banks in India: An overview of Changes after Nationalisation.

Semestr II
Banking 2
Module 1:
Negotiable Instruments, Cheques, Bills, Treasury bills, Acceptance Houses, Discounts, Money Market, Peculiarities of Indian Money Market; Deposits; Borrowings; Primary and Secondary Resources, Loans, Practices in Lending, Credit Circulation, Limitations.

Module 2:

Semester III
Banking 3
Module 1:
Central Banking: Evaluation Functions, Rules of note issue system in India, Bankers’ Bank, Reserve Functions, Statutory Minimum, Banker to Government, Custodian Notions, Reserve, Credit Control, Objectives, Methods, Limitations, Lender of the last resort, Bank Rate, Open market operations, Exchange control, Reserve Bank.

Module 2:

Semester IV
Banking 4
Module 1:
Agricultural Banking, Land Development Banks, Co-operative Banks, Regional Rural Banks, NABARD.

Module 2:
IV. Mathematical Tools for Economics

Semester 1
Mathematical Tools for Economics 1
Chapter 1 : Theory of Sets
1.1 Kinds of sets, 1.2 Operations of sets, 1.3 Venn Diagrams, 1.4 Cartesian Products, 1.5 Relations – Types of Relations, 1.6 Functions, 1.7 Total and partial ordering.

Chapter 2 : Fundamental of Linear Algebra - Matrices
The Role of Linear Algebra, 2.2 Definitions and terms, 2.3 Addition and Subtraction of Matrices, 2.4 Scalar Multiplication, 2.5 Vector Multiplication, 2.6 Multiplication of Matrices, 2.7 Commutative, Associative and Distributive Laws in Algebra. 2.8 Identity and Null Matrices 2.9 Matrix Expression of a Set of Linear Equations. 2.10 Row Operations, 2.11 Augmented Matrix, 2.12 Gaussian Method of Solving Linear Equations.

Basic Reading

Additional Readings
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note: This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level.

Semester 2
Mathematical Tools for Economics 2
Chapter 1 : Matrix Inversion
1.1 Determinants and Nonsingularity, 1.2 Determinants, 1.3 Properties of a Determinant, 1.4 Minors and Cofactors, 1.5 Cofactor and Adjoint Matrices, 1.6 Inverse Matrices 1.7 Solving Linear Equations with the Inverse, 1.8 Cramer’s Rule for Matrix Solutions, 1.9 The Gaussian Method of Inverting a Matrix.

Chapter 2 : Special Determinants and Matrices in Economics
The Jacobian, 2.2 The Hessian, 2.3 The Discriminant, 2.4 Higher-Order Hessians,
2.5 The Bordered Hessian for Constrained Optimization 2.6 Derivation of a Marshallian Demand Function 2.7 Application in Input-output Analysis.

**Basic Reading**

**Additional Readings**
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note: This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level.

**Semester 3**
**Mathematical Tools for Economics 3**
**Chapter 1: Basic Mathematical Concepts**
- Exponents, 1.2 Polynomials, 1.3 Factoring, 1.4 Equations : Linear and Quadratic, 1.5 Completing the Square, 1.6 Simultaneous Equations, 1.7 Functions, 1.8 Graphs, Slopes, and Intercepts, 1.9 Graphs of Nonlinear Function

**Chapter 2 : Economic Applications of Graphs and Equations**
- Isocost Lines, 2.2 Supply and Demand Analysis, 2.3 Production – Possibility Frontiers

**Chapter 3 : The Derivative And The Rules of Differentiation**
- 3.1 Limits, 3.2 Continuity, 3.3 The Slope of a Curvilinear Function, 3.4 The Derivative, 3.5 Differentiability and Continuity 3.6 Derivative Notation 3.7 Rules of Differentiation 3.8 Higher-Order Derivatives 3.9 Implicit Differentiation.

**Basic Reading**

**Additional Readings**
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note: 1. This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level. 2. Differentiation of Trigonometric functions, logarithmic functions etc are not to be included.

**Semester 4**
**Mathematical Tools for Economics 4**
**Chapter 1 : Calculus and Multivariable Functions**
- Functions of Several Variables and Partial Derivatives, 1.2 Rules of Partial Differentiation, 1.3 Second-Order Partial Derivatives, 1.4 Optimization of Multivariable Functions, 1.5 Constrained Optimization with Lagrange Multipliers, 1.6 Significance of the Lagrange Multiplier, 1.7 Differentials, 1.8 Concept of Total and Partial Differentials, 1.9 Concept of Total Derivatives, 1.10 Implicit and Inverse Function Rules, 1.11 Application of Calculus of
Multivariable Functions in Economics.

Chapter 2: Integral Calculus: The Indefinite Integral
Integration, 2.2 Rules of Integration, 2.3 Initial Conditions and Boundary Conditions, 2.4 Integration by Substitution, 2.5 Integration by Parts, 2.6 Economic Applications.

Chapter 3: Integral Calculus: The Definite Integral
3. Area under a Curve, 3.2 The Definite Integral, 3.3 The Fundamental Theorem of Calculus, 3.4 Properties of Definite Integrals 3.5 Area between curves

Chapter 4: Introduction to Differential Equations and Difference Equations

Basic Reading

Additional Readings
2. Taroyamane, Mathematics for Economists (Prentice Hall)

Note: 1. This course is a complementary course and is intended for students of B.A. Economics course who may not have sound knowledge of Mathematical concepts. Hence questions may be confined to intermediary level. 2. Differentiation / Integration of Trigonometric functions, logarithmic functions etc are not to be included.
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