



Chowgule Education Society's
Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award



MINUTES OF MEETING OF THE BOARD OF STUDIES IN ECONOMICS
HELD ON 9th OCTOBER, 2023 at
Parvatibai Chowgule College of Arts & Science
(Autonomous) Margao – Goa.

Vide Chowgule College notice F.133(C)/761 dated 29th September 2023 a meeting of this B.O.S. was convened on 9th October 2023 at 10:00 a.m. at Parvatibai Chowgule College of Arts & Science, Autonomous, Margao – Goa. Since the number of members present represented the Quorum, the BOS began its proceedings.

Members present:

1. Ms. Rupali Tamuly- Chairperson
2. Mr. Ramu P. Pagi- Member Secretary
3. Ms. Aishwarya Desai- Member
4. Ms. Parvin Koppal- Member
5. Ms. Sharanya R. - Member
6. Dr. Meenakshi Bawa- Academic Council Nominee
7. Dr. Aparna Lolayenkar - Vice-Chancellors Nominee

Member Absent with Intimation

1. Dr. Malati Roy - Academic Council Nominee

Member Absent without Intimation

1. Abhijit Chatterjee - Industry Representative
2. Ms. Swara Naik- Alumni

Proceedings

The Chairperson welcomed the members of the Board of Studies (B.O.S.). The Chairperson introduced and explained the agenda for the meeting and read out the minutes of the previous B.O.S meeting. The meeting proceeded with the following agenda.

Proceedings

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Agenda Items:

1. To approve the UG syllabus for Semesters III & IV under NEP 2020.
2. To approve the Discipline-specific, Multidisciplinary, Vocational course and Skill Enhancement course syllabus under NEP 2020.
3. To approve the list of the External Examiners for Project Viva.
4. A.O.B

PART A: The BOS passed the resolutions as follows:

1. Approve the UG syllabus for Semesters III & IV under NEP 2020. (Attached Annexure A)

- The Chairperson, Ms Rupali Tamuly, presented the course structure offered for Semesters III and IV.

The BOS members passed the resolution to approve the same.

2. To approve the Discipline-specific, Multidisciplinary, and Skill Enhancement course syllabus under NEP 2020. (Attached Annexure B)

The chairperson presented the syllabus of Semesters III and IV for the courses in Discipline-specific Core, Skill Enhancement Course, Multidisciplinary Course and Vocational course.

The BOS members passed the resolution for approval of the same.

- **Discipline-specific core courses:** Macroeconomics-I and Empirical Techniques for Economic Analysis – I for Semester III and Behavioral Economics, Evolution of Economic Thought, Public Economics, Introduction to Health Economics for Semester IV.
- **Skill Enhancement Course:** Actuarial Economics for Semester III
- **Multidisciplinary courses:** Human Resource Management and Transport Economics for Semester III.
- **Vocational course:** Introduction to Mathematical Techniques for Economic Analysis for Semester IV

3. To approve the list of the External Examiners for Project Viva.

The chairperson presented the following list of examiners:

1. Dr. Geeta Walvekar- Shree Mallikarjun College of Arts and Commerce, Canacona
Goa
2. Dr. Apoorva Marathe- Cuncolim Educational Society of Arts and Commerce
Cuncolim, Goa
3. Ms. Sangeeta K.-Government College of Arts, Science and Commerce Quepem, Goa
4. Mr. Yaseer Razak- MES's College of Arts and Commerce Sancoale Goa.
5. Mr. Akhil Gawas- Government College of Arts, Science and Commerce Sanquelim,
Goa.
6. Mr. Aviraj Velip- DMC College of Arts, Science and Commerce Assagao Goa.

The BOS members passed the resolution to approve the list of external examiners for the TY Project Viva.

4. AOB

The chairperson presented the following point under AOB:

- Introducing the "Postgraduate Certificate Course in Data Analysis."

The BOS members passed the resolution to approve the title of the same.



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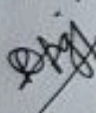
PART B

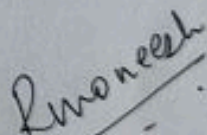
Vide Chowgule College notice **F.133(C)/761 dated 29th September 2023** a meeting of this B.O.S. was convened on 9th October 2023 at 10:00 a.m. at Parvatibai Chowgule College of Arts & Science, Autonomous, Margao – Goa.

Important points/recommendations of BOS that require consideration/approval of the academic council:

- To seek approval of the syllabus of the courses covering: Discipline-specific Core, Skill Enhancement Course, Multidisciplinary Course and Vocational courses for semesters III and IV.
- **Discipline-specific core courses:** Macroeconomics-I and Empirical Techniques for Economic Analysis – I for Semester III and Behavioral Economics, Evolution of Economic Thought, Public Economics, Introduction to Health Economics for Semester IV.
- **Skill Enhancement Course:** Actuarial Economics for Semester II.
- **Multidisciplinary courses:** Human Resource Management and Transport Economics for Semester III.
- **Vocational course:** Introduction to Mathematical Techniques for Economic Analysis for Semester IV
- To seek approval of the list of external examiners for the TY Project Viva

1. Dr. Geeta Walvekar- Shree Mallikarjun College of Arts and Commerce, Canacona Goa
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 5. Mr. Akhil Gawas- Government College of Arts, Science and Commerce Sanquelim, Goa.
 6. Mr. Aviraj Velip- DMC College of Arts, Science and Commerce Assagao Goa.
- To seek approval for the introduction of the "**Postgraduate Certificate Course in Data Analysis.**"

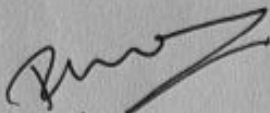

Mr. Ramu Pagi
Member Secretary
Board of Studies


Ms. Rupali Tamuly
Chairperson
Board of Studies

The following members of the Board of Studies in Economics attended the meeting.

Members present:

1. Ms. Rupali Tamuly



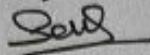
2. Mr. Ramu P. Pagi



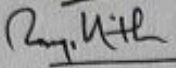
3. Ms. Aishwarya Desai



4. Ms. Parvin Koppal

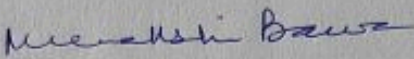


5. Ms. Sharanya R.

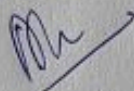


6. ~~Ms. Meenakshi Bawa~~

6 Dr. Meenakshi Bawa



7 Dr. Aparna Lolayekar



Member Absent with Intimation

1. Dr. Malati Roy

2. Abhijit Chatterjee

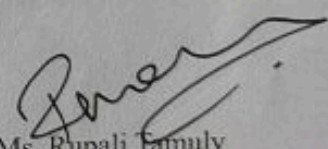
3. Ms. Swara Naik



Mr. Ramu Pagi

Member Secretary

Board of Studies



Ms. Rupali Tamuly

Chairperson

Board of Studies

Date: 9th October 2023

PART C: The remarks of the Dean of the Faculty: -

- a. The minutes are in order.
- b. The minutes may/~~not~~ be placed before the Academic Council with remarks, if any.
- c. Important points of the minutes that need clear policy decisions of the Academic Council to be recorded.

Date: 16 October 2023

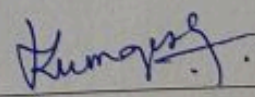
Signature of the Dean:


Dr. Meghana Devli

PART D: The remarks of the Members Secretary of the Academic Council: -

- a. The minutes are in order.
- b. The minutes may be placed before the Academic Council with remarks, if any.
- c. Important points of the minutes which need clear policy decisions of the Academic Council to be recorded.

Date: 18/10/2023


Signature of the Member Secretary
Mr. V.C. Kumaresh
Academic Council

ECONOMICS

SEM EST ER	MAJOR CORE	MINOR/ VOCATIO NAL	MULTIDISCIPLI NARY COURSE (MDC)	VALUE ADDED COURSES (VAC)	SKILL ENHANCEME NT COURSE(SEC)
I	UG-ECO-101: Microeconomics- I		UG-ECO-MDC1: Financial Investment for all UG-ECO-MDC2: Natural Resource Economics	UG-ECO-VAC1: Kautilya's Arthshashtra UG-ECO-VAC2: Financial Literacy	UG-ECO-SEC1: Accounting for Non-accountants
II	UG-ECO-102: Economics of Growth and Development		UG-ECO-MDC3: Taxation for all	UG-ECO-VAC3: Gandhian Economic Thought	UG-ECO-SEC2: Entrepreneurship Development UG-ECO-SEC3: Project Management and Evaluation
III	UG-ECO-201: Macro Economics- I		UG-ECO-MDC4: Human		UG-ECO-SEC4: Actuarial
	UG-ECO-202: Empirical Techniques for Economic		UG-ECO-MDC5: Transport Economics		UG-ECO-SEC5: Introduction to Money and Banking
IV	UG-ECO-203: Behavioural Economics	UG-ECO-207: Introduction to Mathematical Techniques			
	UG-ECO-204: Evolution of Economic Thought				
	UG-ECO-205:				

	Public Economics				
	UG-ECO-206: Health Economics				
V	UG-ECO-301: Regional Economics and use of GIS	UG-ECO-304: Introduction to Operations Research for Economists			
	UG-ECO-302: Introduction to Econometrics				
	UG-ECO-303: Environmental Economics				
VI	UG-ECO-305: Financial Economics	UG-ECO-308: Handling of large Data Sets using R and STATA			
	UG-ECO-306: Introduction to Experimental economics				
	UG-ECO-307: International Trade and Policy				
	UG-ECO-PRJ Project				
VII	UG-ECO-401: Microeconomics- II				

	UG-ECO-402: Macroeconomics- II				
	UG-ECO-403: Advanced to Econometrics				
	UG-ECO-404: Research Methodology				
VIII	UG-ECO-405: Indian Public Finance				
	UG-ECO-406: International Economics				
	UG-ECO-407: Indian Economy				
	UG-ECO-408: Economy of Goa				

SEMESTER III AND IV SYLLABUS OF THE COURSES UNDER NEP 2020

SEMESTER III

DISCIPLINE-SPECIFIC CORE COURSE

Course Title: Macroeconomics- I

Course Code: UG-ECO-201

Credits: 4

Marks: 100

Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to familiarize students with pure macroeconomic theories. It offers a strong base for studying applied macroeconomic theories and principles. It also enables students to understand the process and dynamics of market-based macroeconomic decision-making.

Course Learning Outcomes:

Upon completion of the course, the student will be able to:

CLO1: Define various key macroeconomic variables; principles & tools; and national income concepts.

CLO2: Make use of macroeconomic concepts to develop an understanding of the workings of the economy

CLO3: Examine and analyze Keynesian and Monetarist macroeconomic framework

CLO 4: Estimate, imagine, and elaborate on the impact of macroeconomic policies on the state of the economy

Course Content:

Module – I: Introduction to Macroeconomics & National Income (15 hours)

Nature and scope of Macroeconomics; origin and growth of Macroeconomics limitations of macroeconomics; Definitions and Concepts of National Income, Components of National Income, Real and Nominal concepts of National Income, Methods of Measurement of National Income, and difficulties in measuring National Income.

Module – II: Classical Theory of Output and Employment (15 hours)

The Classical postulates, Say's the foundation of Classical Macroeconomics, and implications of Say's Law, Criticism of the Law of Markets; Classical Theory of Employment, the principles of effective demand and supply; Pigou's reformation of wage cuts for Full employment; Appraisal of Classical Theory of Output and Employment.

Module III: Theories of Consumption & Investment (15 hours)

Introduction to Keynesian economics, Keynesian absolute income hypothesis, Dusenbery's relative income hypothesis, Friedman's permanent income hypothesis, Ando & Modigliani's Life-Cycle hypothesis, The Keynesian approach of the theory of investment and capital accumulation: investment decision, change in interest rate, Marginal Efficiency of Capital and Capital accumulation, the multiplier, and accelerator theory of Investment; Appraisal of Keynesian theories of Consumption and Investment

Module IV: Keynesian and Post-Keynesian Theory of Money and Interest (15 hours)

The Keynesian Theory of Demand for Money – The Keynesian theory of interest – changes in the Money market and the interest rate – Criticism of the Keynesian theory of interest. Portfolio theory of demand for money – Baumol-Tobin's approach to the demand for money – Friedman's quantity theory of money.

List of books recommended for reference

Mandatory Reading

1. Dornbusch, Fischer and Startz. (2010). Macroeconomics, McGraw Hill, 11th edition.
2. Richard T Froyen Macroeconomics Theories And Policies

Supplementary Reading

1. Mankiw, N.G. (2010) *Macroeconomics*, Worth Publishers, New York.
2. Errol D' Souza. (2009). *Macroeconomics*, Pearson Education.
3. Samuelson, P.; Nordhaus, William (2010) *Economics*, McGraw Hill Education. Delhi

Online resources:

1. <https://global.oup.com/uk/orc/busecon/economics/burda7e/>
2. <https://open.umn.edu/opentextbooks/textbooks/33>

Course Title: Empirical Techniques for Economic Analysis – I

Course Code: UG-ECO-202

Credits: 4

Marks: 100

Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to provide students with a good understanding of empirical methods and their application in economics. Further, it empowers students to process the raw data by using soft techniques/tools to analyze economic phenomena conclusively. It also provides them with competency not only in their professional arena but in academics.

Course Learning Outcomes:

Upon completion of the course, the student will be able to:

CLO 1: Relate empirical methodology to an economic inquiry by summarizing and interpreting data.

CLO 2: Apply discrete and continuous probability distributions to various business problems.

CLO 3: Develop basic statistical inference using correlation, regression, indices, hypothesis testing, and ANOVA.

CLO 4: Analyze statistical data using MS Excel.

Course Content:

Module I: Correlation and Regression

(15 Hours)

Karl Pearson's coefficient of correlation and Spearman's Rank coefficient of correlation; properties of Pearson's coefficient of correlation; Linear regression: meaning, regression equations, and lines; *Use of MS EXCEL/Other spreadsheets.

Module II: Time Series & Index Numbers

(15 Hours)

Definition and Utility of Time Series Analysis; Components of Time Series; Decomposition of Time Series; Methods of Measurement of Trend: freehand method, semi-averages, moving average, least squares method; Meaning and Concept of Index Numbers; Issues in Construction of Index Numbers; Classification of Index Numbers;

(15 Hours)

Module III: Probability Distributions

Meaning of probability; Fundamental Concepts and Approaches to Probability; Probability Laws: Addition Law, Multiplication Law, Applications of probability Law; Bayes' Theorem; Types of Probability Distribution; Concept of Random Variables; Discrete Probability Distribution: Binomial Distribution, Poisson Distribution; Continuous Probability Distribution: Normal Distribution, Characteristics of Normal Distribution, Importance and Application of Normal Distribution.

Module IV: Population, Sampling, and Hypothesis Testing

(15 Hours)

Population and sampling; Need for sampling, concept of 'Good Sample'; Methods of sampling: probability and non-probability sampling; sampling techniques; Optimum sampling; Nyman's sampling: problems to be solved based on sampling methods; Hypothesis; Level of significance, critical area; Type I and Type II errors, Z, t, F and χ^2 distribution; ANOVA (one way and two ways).

*Existing or Extra lectures on the use of Excel (Mandatory)

List of books recommended for reference

Mandatory Reading

1. Gupta, S.P. 1999, Elementary Statistical Methods, Sultan Chand & Sons, New Delhi.
2. Arora, P.N. et al. (2007), *Comprehensive Statistical Methods*, 1st edition, S. Chand, New Delhi.
3. David F. Stephan et al. (2021), Statistics for Managers Using Microsoft Excel, 9th edition. Pearson Publication
4. Wayne L. Winston(2019), Microsoft Excel 2016 Data Analysis and Business Modeling, 5th edition. Pearson Publication

Supplementary Reading

1. Anderson, David R. et.al. *Statistics for Business and Economics*, Cengage Learning India Edition.

2. Levine, D. M., Berenson, M. L., & Stephan, D. (1997). *Statistics for managers using Microsoft Excel*. Upper Saddle River, N.J: Prentice Hall.

Online resources:

1. <https://www.itl.nist.gov/div898/handbook/prc/section1/prc131.htm>
2. <https://www.statisticshowto.com/probability-and-statistics/hypothesis-testing/>
3. <https://www.excel-easy.com/examples/descriptive-statistics.html>

MULTIDISCIPLINARY COURSES (MDC)

Course Title: Human Resource Management

Course code: UG-ECO-MDC4

Credits: 3

Marks: 75

Duration: 45 hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to impart to students the knowledge, understanding, and key skills that are required by today's human resource professionals and to enable them to effectively contribute to dynamic organizations as employees.

Course Learning Outcomes:

Upon completion of the course, the student will be able to:

CLO1: Understand the value and importance of human resources in an organization.

CLO2: Analyze the ways and means of hiring and appraising human resources and administer and contribute to the design and evaluation of the performance management program.

CLO3: Get hands-on training with case studies.

Course Content:

Module 1: Introduction to Human Resources Management (15 hours)

Human resource management (H.R.M.): Introduction, Definitions, Nature, Features, Scope, Objectives, Functions, and Principles. Global Challenges; Internal and External forces affecting the human resource function; H.R.M. department: Objectives, importance, global setting.

Module 2: Recruitment and Selection Process (15 hours)

Purpose, Importance, and Sources of Recruitment; Planning and Forecasting; Factors Governing Recruitment Process; Effective Recruiting Tools of Selection and Selection Process; Internal and External Sources of Candidates; Recruiting a Diverse Workforce; Employee Testing and Selection; Induction and Placement; Role of recruitment agencies, Dispute resolution and settlement mechanism.

Module 3: Practical Management Skills

(15 hours)

Performance appraisal: Introduction, definition, objectives, need and importance; Process of Performance Appraisal; Training - Designing an Effective Training and Development Programme; Evaluation of the Effectiveness of Training Programmes; Challenges before a Trainer

*Module 3 is a Practical Component that includes: Case studies: Designing a Training Module for employees on self-development, Designing of advertisement for the post, Conducting Interviews; Designing Performance Appraisal; Dispute Settlement and Redressal

List of books recommended for reference

Mandatory Readings:

1. Aswathappa. K. (2008), Human Resource and Personnel Management (5th edition), Tata McGraw-Hill Publishing Company Ltd., New Delhi.
2. Bernardin, H. J. (2007). Human Resource Management. An Experiential Approach. Tata McGraw Hill.

Supplementary Readings:

1. DeCenzo, D. A. & Robbins, S. P, (2008), Fundamentals of Human Resource Management, 8th edition, John Wiley & Sons Ltd, ISBN: 9812-53-171-8.
2. Dessler, G. (2008) Human Resource Management. Pearson Prentice Hall, Upper Saddle River.
3. Ivancevich, J. M. (2008), Human Resource Management, Tata McGraw Hill.

Online Resources:

1. Human Resource <https://www.aihr.com/blog/human-resource-basics/>
2. Human Resource Management <https://www.managementstudyguide.com/human-resource-management.htm>
3. Performance appraisal <https://www.managementstudyguide.com/performance-appraisal.htm>
4. Training and Development <https://www.ibm.com/in-en/topics/training-development>
5. <https://www.toppr.com/guides/business-management-and-entrepreneurship/human-resource-management/training-and-development/>

Course Title: Transport Economics
Course code: UG-ECO-MDC5
Credits: 3
Marks: 75
Duration: 45 hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to provide students with an understanding of the relationship between transport and the economy. The course has been designed to apply economic concepts in a practical setting and illustrate them using case studies especially chosen from the Indian context to provide important insights into the economics and management of different parts of the transport sector. The course also provides insight into the transport economy of India.

Course Learning Outcomes:

Upon completion of the course, the student will be able to:

- CLO1:** Actively discuss and debate contested transportation economic issues,
- CLO2:** Identify detailed elements of the transportation economics sub-field that may be appropriate for future thesis/project work.
- CLO3:** Evaluate economic policies that affect the transportation system and understand the institutional and political barriers associated with transportation pricing and financing,

Course Content

Module I: Introduction to Transport Economics (15 lectures)

Introduction: Basics of microeconomics (demand and supply, and consumer surplus);
Transport and the economy & transport and local economic development; Types of transports;
Public and private transport In India, Regulation and competition in the transport sector.

Module II: Demand and supply of transport in India (15 lectures)

Demand for public and private transport; supply of transport; feasibility and suitability of public transport with private ownership; Indian railways: Passenger and freight, Inland waterways in India: Freight, Vehicular density in India: Measurement; Externalities.

Module III: Sustainable Transport in India

(15 lectures)

Carbon footprints from transport; Issues with shared public transport; Environment-friendly modes of transport; Cycles, electric scooters, and cars; Shared environment-friendly transport: Cycles and electric scooters on rent; India's Transport policy; Technology and transport: use of GPS and GIS; Wildlife friendly transport.

List of books recommended for reference

Mandatory Readings:

The Routledge Handbook of Transport Economics Edited By Jonathan Cowie, Stephen Ison
Transport Economics, 3rd Edition 3rd Edition, Kenneth Button(2010); Edward Elgar Publication

Supplementary Readings:

1. Arnott, R., Kraus, M. (2003). Principles of Transport Economics. In: Hall, R.W. (eds) Handbook of Transportation Science. International Series in Operations Research & Management Science, vol 56. Springer, Boston, MA.
2. Immers L.H., Stada J.E. Basics of Transport Economics (2004)

Online Resources:

1. https://ctr.utexas.edu/wp-content/uploads/pubs/0_6628_P1.pdf The Economics of Transportation Systems: A Reference for Practitioners
2. https://www.researchgate.net/publication/280313162_THE_ROLE_OF_TRANSPORTATION_IN_ECONOMIC_DEVELOPMENT The Role Of Transportation In Economic Development
3. <https://supernet.isenberg.umass.edu/articles/EOLSS.pdf> Mathematical Models Of Transportation And Networks
4. <http://indiaenvironmentportal.org.in/content/388897/india-transport-report-moving-india-to-2032/> India transport report: moving India to 2032
5. <https://egyankosh.ac.in/bitstream/123456789/30904/1/Unit-4.pdf> Transport Economics

SKILL ENHANCEMENT COURSE (SEC)

Course Title: Actuarial Economics

Course code: UG-ECO-SEC4

Credits: 3

Marks: 75

Duration: 45 Hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to provide tools for analyzing insurance and insurance risks. It also develops expertise in students that is relevant for research and training in insurance companies and helps them acquire a wide range of decision-making processes used for financial planning and management.

Course Learning Outcomes :

Upon completion of the course, the student will be able to:

CLO1: Understand concepts in actuarial economics

CLO2: Calculate annuity and types of annuity and Apply probability theory to insurance

CLO3: Examine and Interpret the life table for the calculation of premium.

Course Content:

Module 1: Introduction to Actuarial Economics

(15 Hours)

Origin, nature, and scope of Actuarial Economics; Its importance; Link between financial planning and risk management; Utility and risk preference; *Annuity: ordinary annuity, annuity due, deferred annuity; Perpetuity: present value of immediate perpetuity, the present value of perpetuity due, deferred perpetuity; Annuities with a frequency different from that with which interest is convertible; Varying rates of interest; Redemption of the Loan; Average interest yield on the life fund.

***Module 2: Mortality Tables**

(15 Hours)

Probability theory in insurance; Mortality table: Concept and different columns of mortality tables; Select and Ultimate tables; Stages involved in the construction of mortality tables.

***Module 3: Pricing**

(15 Hours)

Essential elements in the computation of life insurance premium; premium calculation; Level annual premium; Net premium calculation; formulae for calculation of net premium; commutation functions; Office premium: salary and salary-related expenses, property costs, computer systems costs, one-off capital expenses; Cash flow approach for pricing; Applications of cash flow projections; pricing application.

*Practical component

List of books recommended for reference

Mandatory reading:

1. Mishra K.C. & Kumar C.S., (2009), *Elements of Actuarial Science*, Cengage Learning, Delhi
2. Booth, P.M. et al., (1999), *Modern Actuarial Theory and Practice*, Chapman and Hall, London
3. David & Dickson (2019), *Actuarial Mathematics for Life Contingent Risks*, 3rd edition. Cambridge University Press

Supplementary Reading:

1. Newton Bowers et al., (1997), *Actuarial Mathematics*, Society of Actuaries, (second edition), Illinois.
2. Sherris, Michael, (2001), *Principles of Actuarial Science*, PDF
3. Marco Corazza et al. (2016), *Mathematical and Statistical Methods for Actuarial Science and Finance*, Springer International Publisher.

Online Resources:

1. https://www.researchgate.net/publication/306082366_Knowledge_and_Perceptions_of_Actuarial_Science_Among_Students_and_Academics_Evidence_from_JABU
2. <https://www.casact.org/library/astin/vol36no1/1.pdf>
3. https://faculty.wharton.upenn.edu/wp-content/uploads/2013/05/Lemaire_2005_Actuarial_1.pdf

SEMESTER IV
DISCIPLINE-SPECIFIC CORE COURSE

Course Title: Behavioral Economics
Course Code: UG-ECO-203
Credits: 04
Marks: 100
Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to familiarize the students with the promising field of behavioural economics and to understand the individual decision-making of economic actors. It also views the world of finance with a behavioural lens and integrates the understanding into a broader policy-based analysis.

Course Learning Outcomes

Upon completion of the course, the student will be able to:

CLO1: Understand the basic concepts in behavioural economics.

CLO2: Evaluate the importance of behavioural economics for policy-making

CLO3: Design applications of behavioural economics to a given Economics problem

CLO4: Analyze the effectiveness of flagship programs of GOI.

Course Content:

Module I: Introduction to Behavioral Economics

(15 Hours)

Meaning; Evaluating behavioral economics, historical context, methodology; basic concepts: probability judgment; Preferences: revealed, constructed, discovered, or learned.

Module II: Principles of Behavioral Economics for Policy Making

(15 Hours)

Principles: Behavior of others; Importance of habits; self-motivation and decision making; self-expectations and its influence on decisions; Loss aversion and its impact; Computational bias; involvement of people for policy-making

Module III: Decision making under risk & uncertainty

(15 Hours)

Heuristics and Biases program- Representativeness, Availability, Anchoring and adjustment, mental accounting Biases: Overconfidence, Confirmation bias, Framing, Status Quo Bias,

Endowment Bias, Self-Control Bias Fallacies: conjunction and disjunction fallacies, gambler's fallacies.

Module IV: Applications of Behavioral Economics

(15 hours)

Choice architecture: The role of nudging; Applications: Labor Economics, Finance, Taxation, Public Policies: Psychological and social perspectives on policy in the area of Poverty, Health, Climate Change.

List of books recommended for reference

Mandatory Reading

1. Nick Wilkinson; Matthias Klaes(2012), *An Introduction to Behavioral Economics*, 2nd Edition, Palgrave Macmillan.
2. Erik Angner, "*A Course in Behavioral Economics*", Palgrave Macmillan
3. SanjitDhami, "*The Foundations of Behavioral Economic Analysis*", Oxford University Press (2016)
4. E. Cartwright, (2011), *Behavioral Economics*, Routledge
5. M. Altman (2007), *Handbook of Contemporary Behavioral Economics: Foundation and Developments* Prentice Hall India

Supplementary Readings

1. D. Kahneman (2011), *Thinking Fast and Slow* Allen Lane, Penguin Books
2. G. Loewenstein(2007), *Exotic Preferences: Behavioral Economics and Human Motivation* Oxford University Press
3. Colin F. Camerer, George Loewenstein, Matthew Rabin (ed.)(2004), *Advances in Behavioral Economics*, Princeton University Press.
4. Dan Ariely, Harper Perennial,(2010)*Predictably Irrational: The Hidden Forces That Shape Our Decisions*,

Reports:

World Development Report 2015: Mind, Society, and Behavior

Online resources:

1. <http://www.its.caltech.edu/~cramer/ribe239.pdf>
2. https://b3cdn.net/nefoundation/cd98c5923342487571_v8m6b3g15.pdf
3. https://www.google.com/url?sa=t&source=web&ret=j&url=https://www.researchgate.net/publication/305377222_Behavioral_Economics&ved=2ahUKEwiJkPOyiMHkAhULPo8KHV77CvIQFjAGeQICB&usq=AOvVaw1H1H1eBtjbyqdF7kq3w9sYo

Course Title: Evolution of Economic Thought
Course Code: UG-ECO-204
Credits: 04
Marks: 100
Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objective:

This course aims to offer a critical historical and methodological introduction to the study of economics. The course equips the students with tools to exercise their judgment as economists. In particular, discussing the nature and scope of economics, with historical examples, is important to give students a sense of the economic discipline and its historical and methodological evolution and adequately address current economic issues.

Course Learning Outcomes: Upon completion of this course, students will be able to:

CLO1: To understand the nature of economic thought and the importance of classical economic theories.

CLO2: To appreciate the importance of neo-classical theories.

CLO3: To appreciate the contribution of Institutionalism, Welfare Economics, and Keynesianism and able to understand Monetarism and Post-Keynesian economic theories

CLO4: To examine Indian ancient and modern economic thought

Course Content:

Module I: Classical Economic Theories

(15 Hours)

Nature and Importance of Economic Thought: Approaches of Economic Thought – Scholastics, Mercantilism, French, and English: Thomas Munn, Scientific Method, and the French Physiocrats: Quesnay; The Classical School: Adam Smith: Division of Labour; Ricardo and Theory of Rent, Comparative Cost Theory, Stationary State: Malthus and Theory of Population and Theory of Gluts.

Module II: Neo-Classical Economic Theories

(15 Hours)

Neoclassical: Marginal Revolution: Alfred Marshall and the Cambridge School: Utility Theory, Consumer's Surplus, Elasticity of Demand, Concept of Representative Firm; Marxian Economics: Labour Theory of Value, Theory of Surplus Value, Marx's Theory of Money, Distribution, Capital Accumulation, and Crises.

Module III: Keynesian and Post-Keynesian

(15 Hours)

American Institutionalism: AC Pigou and Welfare Economics, Hayek and the Austrian School; Keynes and the General Theory of Employment, Interest, and Money, Capitalism, Socialism and Mixed Economy, New Institutionalism, Common Pool Resources; Friedman and Monetarism.

Module IV: Indian Economic Thought

(15 Hours)

Ancient Indian Economic Thought: Kautilya; Thiruvalluvar; Modern Indian Economic Thought: Dadabhai Naoroji: Economic ideas and theory of drain of wealth; Gopal Krishna Gokhale: Indian Finance, Decentralisation, Public Administration, Land revenue, Trade; Sir M. Visvesvaraya: Planned Economy in India: Bombay Plan; Gandhi: Sarvodaya, trusteeship, Village economy; Dr. B.R. Ambedkar: Economic ideas

List of books recommended for reference

Mandatory Readings

1. Milonakis, Dimitris and Fine, Ben (2009), *From Political Economy to Economics Method, the Social and the Historical in the Evolution of Economic Theory*, Routledge, London.
2. Dasgupta, Ajit K. (1993): *A History of Indian Economic Thought*, Routledge, London.
3. Singh V. B. (2009) *From Naoroji to Nehru: Six Essays in Indian Economic Thought*, Macmillan Company of India.

Supplementary Readings

1. Backhouse, Roger E. (1985), *A History of Modern Economic Analysis*, Basil Blackwell, Oxford
2. Blaug, Mark (1997), *Economic Theory in Retrospect*, Blaug, Cambridge University Press, Cambridge, U.K.
3. Blaug, Mark (1992): “*The Methodology of Economics: Or How Economists Explain*”, Cambridge University Press, Cambridge, U.K.

Online resources:

1. <http://www.hetwebsite.net/het> The history of economic thought website: here you can find an alphabetical index of individual economists, pages covering various schools of thought, and a series of essays and surveys on specific topics;

2. <https://www.eshet.net> European Society for the History of Economic Thought: a website where you can find many publications on the History of Economic Thought, events, and researchers working on the subject.

3. <https://www.rethinkeconomics.org> Rethinking economics: the international network of students, thinkers, and citizens coming together to invigorate economics. Interested articles, videos, and other materials on rethinking economics will be found.

4. <https://archive.org/details/in.ernet.dli.2015.463213/page/n1/mode/2up> History of Economic Thought, Eric Roll

Course Title: Public Economics

Course Code: UG-ECO-205

Credits: 04

Marks: 100

Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objectives

The objective of this course is to impart knowledge about core economic theories of distribution, general equilibrium, welfare, and market failure. The course provides analytical tools so that students can apply them to analyze key issues relating to public revenue and public spending.

Course Learning Outcomes:

Upon completion of the course, the student will be able to:

CLO1: Appreciate public economics & its rationale.

CLO2: Examine the nature of the public economy, the functioning of markets, and determinants of market failure.

CLO3: Evaluate the welfare effect of taxes and demonstrate the theory of public goods in reality.

CLO4: Describe the major items of government revenue and expenditure

Course Content:

Module I: Issues in Public Economics

(15 Hours)

Nature of the Public Economy; Public economy and markets: Pareto optimality and Market failure, fundamental theorem of welfare, Cases of violation of Pareto optimality; Asymmetric information and market failure: the problem of externality and their internalization; Pigouvian tax; Federal state v/s unitary; Components of Budget; Introduction to Fiscal Policy.

Module II: Theory of Public Goods

(15 Hours)

Public Choice theory; Public goods, Samuelson model, Lindahl model; Empirical theories of public goods: Wagner hypothesis, Wiseman-Peacock hypothesis; Preference revelation mechanism for public goods.

(15 Hours)

Module III: Public Revenue

Principles of Taxation and classification of taxes: Impact and incidence of taxes, Benefit, and ability to pay principle, deadweight loss, optimal taxation, partial and general equilibrium, examples; Excess burden of tax; tax evasion & tax avoidance.

(15 Hours)

Module IV: Public Expenditure and Public Debt

Principles of expenditure and classification of expenditure; Cost-Benefit analysis; Causes and Consequences of public debt; Debt sustainability analysis; Modigliani's burden thesis; Burden of internal & external debt; Debt trap.

List of books recommended for reference

Mandatory Readings

1. Cullis J. and Jones P.(2009) Public Finance & Public Choice: Analytical Perspectives, Oxford
2. Auerbach, A. & M. Feldstein (eds) (1987) Handbook of Public Economics, Vol.I& II, Elsevier, New York
3. Baumol, W. J. (Ed.) (2001), Welfare Economics, Edward Elgar Publishing Ltd. U.K
4. Herber, B.P.. Modern Public Finance, Third Edn. 1975, Richard D. Irwin, Inc.
5. Atkinson, A. and Stiglitz J.E (2015), Lectures on Public Economics, McGraw-Hill, New York

Supplementary Readings

1. Musgrave, R. A. (1959), The Theory of Public Finance, McGraw Hill, New York.
2. Musgrave, R. and Musgrave P. (2004), Public Finance in Theory and Practice, McGraw-Hill.
3. Cornes, R. & T. Sandler (1986) The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge
4. Hindriks J. and Myers G.D. () Intermediate Public Economics, Prentice Hall of India, New Delhi

Online resources:

1. <https://dea.gov.in/external-debt>
2. <https://ocw.mit.edu/courses/economics/14-471-public-economics-i-fall-2012/lecture-notes/>
3. <https://www.startupindia.gov.in/content/sih/en/international/go-to-market-guide/tax-system-india.html>
4. https://www.indiabudget.gov.in/exp_budget.php

Course Title: Introduction to Health Economics

Course Code: UG-ECO-206

Credits: 04

Marks: 100

Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objectives

The objective of this course is to provide a better understanding of the economic theory of health and healthcare with the help of economic models of microeconomics. The emphasis is on key economic concepts that health economists use to analyze health and healthcare markets. The course provides tools to evaluate and interpret empirical findings in health economics.

Course Learning Outcomes

Upon completion of the course, the student will be able to:

CLO1. Develop an understanding of the key concepts in health economics.

CLO2. Identify principles and concepts of economic evaluation in health systems.

CLO3. Evaluate the skills that recognize and address the challenges of limited resources within the health sector.

CLO4. Evaluate inter-related components of health systems from an economic perspective.

Course Content

Module I: Health and Economic Development

(15 Hours)

Investment in human capital, Health, and Social Welfare, Determinants of Health; Economic growth, Economic development, and Health Linkages; Economic Analysis of Health care, Data on health and health-related aspects in India; Global burden of diseases; India and S.D.G. 3: Universal health care.

(15 Hours)

Module II: Demand for Health Care Services

Demand for Health care; Issues of success to health care; Health expenditure: out-of-pocket expenditure on health, Measurement of Impoverishment, and catastrophic effects of out-of-pocket expenditure on health; WHO data on out-of-pocket expenditure on health for India.

(15 Hours)

Module III Supply of Health care services

Supply of healthcare; Physicians and Medical Personnel as Health care providers, Non-labour inputs: Health infrastructure, Interaction of Demand and Supply of Health care, Private versus public health care provider; National Health accounts, Health infrastructure Statistics in India.

Module IV: Health Insurance

(15 lectures)

Health policy of India; Health insurance market: asymmetric information, principal-agent relationship; Private & public health insurance scheme; Various State government health insurance schemes; Ayushman Bharat.

List of the books recommended as references

Mandatory Reading:

1. D. Jery Josephin, Jeyasingh, D. Solomon Raj, (2016), Health Economics, Creative Crows publishers
2. Nair K. S. (2022), Health Economics and Financing, New Century publication

Supplementary Reading

1. Banerjee, D. (1975), Social and Cultural Foundations of Health Service Systems of India, Inquiry, Supplement to Vol. XII, June.
2. Edwin G Dolan and John C Goodman, (1991), Economics of Public Policy: 4th Edition: West Publishing Company, New York.
3. Grossman M, (1991), 'The Shadow price of Health in the Economics of Health' Vol. 1 by A.J. Culyes (ed), Edward Elger publishing Ltd, U.K.
4. Volan Brian, (1993), Economics Incentives, Health Status and Health Services, Utilisation, Journal of Health Economics, Vol II.

5. William Jack, (1999), Principles of Health Economics for Developing Countries, World Bank Institute Development Studies.
6. World Development Report, (1993), Investing in Health, the World Bank.

Online Resources:

1. Key concepts in health economics: <http://www.mcrhrdi.gov.in/FC2020/reading%20material/economics/Reading%20health%201.pdf>
2. Introduction to health economics https://www.academia.edu/83748087/Introduction_to_Health_Economics
3. Future of health economics https://www.sciencedirect.com/science/article/abs/pii/S0167629699000338?casa_token=Jb0a3bc2nUQAAAAA:hhAvmKMxZ8gPb2O78X14NJHhJt7_tAGI9t7aZRtZh2PgIwaR_vCAJ3cRPT71EhIk0Q8plDnZkQ4
4. Towards a definition of health economics <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1951624/>
5. Essentials of health economics <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1499968/>

Vocational Course

Course Title: Introduction to Mathematical Techniques for Economic Analysis

Course Code: UG-ECO-VOC 1

Credits: 04

Marks: 100

Duration: 60 Hours

Prerequisite Courses: (NIL)

Course Objectives:

The objective of this course is to introduce the learners to basic mathematical concepts, tools, and techniques, and also discuss how these techniques are applied to economic analysis. The students also learn to think about the appropriate mathematical tool to apply to a given economic phenomenon process or idea.

Course Learning Outcomes:

Upon completion of the course, the student will be able to:

CLO1: Identify and use the rules of calculus

CLO2: Interpret graphs and tables

CLO3: Apply mathematical techniques in economics

CLO4: Design optimal solutions to simple economic problems

Course Content:

Module I: Introduction to Basic Concepts

(15 Hours)

Importance of Mathematical and Statistical Methods in Economic Analysis Review of some Concepts; Algebraic Expressions; Equations; Exponents; Graphs of Lines and Non-Linear Equations; System of Simultaneous Equations; properties of sets, number systems; Coordinate geometry: straight line, rectangular hyperbolas, concave & convex, tangency.

Module II: Concept of Function and Types

(15 Hours)

Limit, Continuity and Derivatives; Rules of Differentiation; Marginal Concept; Marginal Cost; Revenue; Utility; Elasticities and Types; Partial and Total Differentiation and Applications; Some Simple Rules of Integration.

Module III: Optimization

Problems of Maxima and Minima in Single and Multivariable Functions; Constrained Optimization in Simple Economic Problems. (15 Hours)

Module IV: Matrix Algebra

Matrices: concept, types, matrix algebra, transpose, inverse, rank; Determinants: concept, properties, solving problems using properties of determinants, the solution to a system of equations - Cramer's rule and matrix inversion method. (15 Hours)

List of books recommended for reference

Mandatory Readings

1. Knut Sydsaeter and Peter J Hammond (2005), *Mathematics for Economic Analysis*; Pearson Educational Asia: 4th Indian reprint.
2. Chiang, A.C. & Kevin Wainwright (2005), *Fundamental Methods of Mathematical Economics*; Fourth Edition, McGraw-Hill.
3. Dowling, Edward T. (1992), *Schaum's Outline of Theory and Problems of Introduction to Mathematics*; 3rd Edition, McGraw-Hill

Supplementary Readings

1. Zumruddin and Khanna, *Business Mathematics*, second edition, S Chand and Sons Delhi. 2009
2. Mehta – Madnani (1973), *Mathematica for Economist*, S Chand and Sons Delhi.

Online resources:

1. <https://www.semanticscholar.org/paper/The-use-of-Mathematics-in-Economics-and-its-Eect-a-Espinosa-Rond%C3%B3n/3f7f08695495e297dcc2ee31e8c3d2ee67a15cbe>
2. <https://pdfs.semanticscholar.org/3f7f/08695495e297dcc2ee31e8c3d2ee67a15cbe.pdf>
3. https://www.google.com/search?safe=strict&ei=hJeJXZLxCp3Vz7sPwumS4Ag&q=Mathematical+Modelling+and+Ideology+in+the+Economics+Academy%3A+competing+explanations+of+the+failings+of+the+modern+discipline%3F&oq=Mathematical+Modelling+and+Ideology+in+the+Economics+Academy%3A+competing+explanations+of+the+failings+of+the+modern+discipline%3F&gs_l=psyab.12..0i362i308i154i357l6.27692.32493..36100...0.0..0.533.533.5-1.....1....1j2..gwsiz.....6.Od4MgZUFbQo&ved=0ahUKEwiSw9LhyjkAhWd6nMBHcK0BIwQ4dUDCA

Annexure C

List of External Examiners for TY Project Viva

1. Dr. Geeta Walvekar- Shree Mallikarjun College of Arts and Commerce, Canacona Goa
2. Dr. Apoorva Marathe- Cuncolim Educational Society of Arts and Commerce Cuncolim, Goa
3. Ms. Sangeeta K.-Government College of Arts, Science and Commerce Quepem, Goa
4. Mr. Yaseer Razak- MES's College of Arts and Commerce Sancoale Goa.
5. Mr. Akhil Gawas- Government College of Arts, Science and Commerce Sanquelim, Goa.
6. Mr. Aviraj Velip- DMC College of Arts, Science and Commerce Assagao Goa.