GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

Deemed to be University u/s 3 of the UGC Act, 1956

PUNE 411004

GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

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COURSE STRUCTURE & SYLLABUS

M.Sc. (Public Policy)

(Approved by Board of Studies 26/02/2024 & 28/05/2024; Approved by Academic Council 5-6-2024)

Preamble:

M.Sc. Economics in Public Policy program, a new program from the academic year 202324, is a two-year full-time post-graduate programme. This programme offers theoretical and practical knowledge in Public Policy. It offers an opportunity in understanding problems in public policy framing, and conducting robust, applied and impactful study that influences public policy. This programme will give the students a keen understanding of theoretical issues in public policy, and its relationship with empirical research evidences that significantly influences the public policy process, such as ideologies and institutions. Students in this programme will be able to design research problems, and undertake a range of policy-relevant studies, and conduct research to the highest standards. This programme offers versatile skills that will be very useful to policymakers, researchers, and academicians. In this programme the students are exposed to Soft skill development: presentation and communication (oral and written), impact of public policy on primary, secondary and tertiary sectors in select advanced and emerging market and project management. In the end the students are required to present assignments on the case study writing on impact analysis of public policy, evidence-based policy evaluation, project assignment, field work, dissertation. It is thus a distinct programme from other M.Sc. programmes.

INDEX

Sr. No.	Course Code No.	Name of the course
		COMPULSORY COURSES
1	C-01	Microeconomics
2	C-02	Macroeconomics
3	C-03	Statistics
4	PP-A-04	Fundamentals of Public Policy
5	PP-A-05	Public Policy: Theory and Applications
6	PP-A-06	Public Policy: Process, Implementation and Evaluation
7	C-04	Basic Econometrics
8	PP-A-08	Public Economics and Development Economics
9	PP-A-22	Business Analytics
10	PP-A-10	Overview of Primary, Secondary and Tertiary Sectors: Theory and Practice
11	PP-A-09	Money, Banking, Trade and Financial Markets
12	PP-A-12	Research Methodology
13	PP-A-13	Soft Skill Development: Presentation and Communication (Oral and Written)
14	PP-A-14	Impact of Public Policy on Primary, Secondary and Tertiary Sectors Country Experiences: Select Advanced and Emerging Markets
15	PP-A-15	Project Management I
16	PP-A-16	Project Management II
17	PP-A-17	Case Study Writing on Impact Analysis of Public Policy
18	PP-A-18	Evidence-based Policy Evaluation
19	PP-A-19	Project Assignment
20	PP-A-20	Field Work
21	PP-A-21	Dissertation

Course Structure: Overview Total Number of Credit – 80 (1200 Hrs)

Semester 1 (20 Credit - 300 Hrs)

1. Microeconomics
2. Macroeconomics
3. Statistics
4. Fundamentals of Public Policy
5. Public Policy: Theory and Applications

Semester 2 (20 Credit - 300 Hrs)

6. Public Policy: Process, Implementation and Evaluation
7. Basic Econometrics
8. Public Economics and Development Economics
9. Business Analytics
10. Overview of Primary, Secondary and Tertiary Sectors: Theory and Practice

Semester 3 (20 Credit - 300 Hrs)

11. Money, Banking, Trade and Financial Markets
12. Research Methodology
13. Soft Skill Development: Presentation and Communication (Oral and Written)
14. Impact of Public Policy on Primary, Secondary and Tertiary Sectors Country Experiences: Select Advanced and Emerging Markets
15. Project Management 1
16. Project Management 2

Semester 4 (20 Credit – 300 Hrs)

17. Case Study Writing on Impact Analysis of Public Policy
18. Evidence-based Policy Evaluation
19. Project Assignment
20. Field Work
21. Dissertation

Course code: C-01
Course name: Microeconomics (50 + 10 = 60 Hrs)

Learning Outcome:

(i)   To acquaint the students with introductory consumer theory and the limitations with an orientation towards behavioural approach (Module I)

(ii)   To understand how the choice will be made under uncertainty and how the attitude towards risk will be determined. (Module II)

(iii)   To introduce to the students, the concepts associated with the functioning of a firm. (Module III) (iv) To study the various types of markets prevalent in an economy and the nature of their decision making (Module IV)

(v) To study the information economics i.e. role of asymmetric information and its way out, designing of optimum incentive scheme under information asymmetry (Module V)

(vi) To acquaint the students with the basics of game theory (Module VI)

Module I: Consumer Theory (8 hrs)

● Preference Relation and Its Properties.

● Consumer Preferences and Representation of Preferences by Utility Functions.

● Budget Constraint, Utility Maximization and Derivation of the Demand Function, The Indirect Utility Function and   Its Properties, Roy's Identity

● Revealed Preferences. Endowments in the Budget Constraint, Difference between revealed and normative preference

● Limitations of the Consumer Theory

● Behavioural Approach

Module II: Choice Under Uncertainty (12 hrs)

● The Expected Utility Model, Utility on Lotteries, Axioms and Preferences under Uncertainty

● Critiques of the Expected Utility Model, Prospect Theory

● Measures of Risk--Domar-Musgrave Index, Roy's Safety Index, Mean-Variance, Semi Variance Minimax Regret

● Lotteries, Preference Relation over Lotteries, N-M Expected Utility Theory ● Basic Axiom and Representation Theorem Violations of EU theory.

● Subjective Probabilities

● Risk Aversion – Jensen's Inequality, Acceptance Set and Risk Aversion

● Various Measures of Risk Aversion like Arrow-Pratt Measure of Absolute Risk Aversion, Relative Risk Aversion

● Certainty Equivalent and Risk Premium

● Arrow-Pratt Approximation of Risk Premium

● Pratt's Theorem ● Classes of Utility Functions: Decreasing Absolute Risk Aversion (DARA), Constant Absolute Risk Aversion (CARA), Increasing Absolute Risk Aversion (IARA), Decreasing Relative Risk Aversion (DRRA), Increasing Relative Risk Aversion (IRRA), Constant Relative Risk Aversion (CRRA) etc. and their comparative statics

● Applications to Various Settings and Comparative Static Results.

Module III: Theory of Firm (6 hrs)
- Theory of Organization. Measurements of Inputs and Outputs
- Profit Maximization, Comparative Statics, Profit Function. Hoteling's Lemma, Factor Demand Functions, Supply Function.
- Cost Minimization, Cost Functions, Average and Marginal Cost Functions, Short-Run and Long-Run Costs, Marginal Cost Pricing, Aggregation – Industry Supply Function, Shepherd's Lemma, Conditional Factor Demand Functions.
- The Duality Between Production and Cost Functions.

Module IV: Theory of Market (8 hrs)
- Perfect Competition: Short-Run and Long-Run Market Equilibrium.
- Monopoly: Monopoly Power, Equilibrium Output and Prices, Effect on Welfare, Price Discrimination – First, Second, And Third-Degree, Quality Choice Under Monopoly. Market Power, Sources of Market Power, Monopoly & Regulation of Monopoly. HHI or Any Other Index Used to Measure the Concentration of Firms.
- Monopolistic Competition.
- Oligopoly: Cornet Equilibrium, Stability, Comparative Statics, Bertrand Equilibrium. Quantity Leadership, Price Leadership. Conjectural Variations.
- Spatial Competition: Linear City Model, Circular City Model.
- Market failure, public goods and introduction to welfare economics

Module V: Information Economics (10 hrs)
- Introduction: The Elements of the Problem
- Types of Asymmetric Information Problems– Moral Hazard, Adverse Selection, Signalling
- Static Full Information Benchmark
- Hidden Action in a Two Action-Two outcome model as well as in a Simple Continuous Action and Continuous Outcome Case
- Solution through First Order Approach and its Validity
- Value of Information and Characteristics of the Optimal contract
- Adverse Selection and Signalling: Karloff's Model of Lemons, ● Signalling in the Spence's Model of Education
- The Notions of Pooling and Separating Equilibria.

Module VI: Game theory (introduction) (6 hrs)
- Description of a Game, Normal Form Representation of the Game, Extensive Form Representation of the Game
- Solution Concepts—Nash Equilibrium, Mixed Strategies, Repeated Games, Sequential Games

Evaluation pattern

- Quizzes – 10 marks
- Mid-term – 15 marks

- Assignment – 15 marks
- End Semester Exam – 60 marks

Suggested Readings:

Books:

1. Serrano and Feldman. M.A. (2018). A Short Course in Intermediate Microeconomics with Calculus. Cambridge University Press

2. Gravelle, H. and Rees R, 2003, Microeconomics, 3rd Edition, Prentice Hall

3. Kreps, David. (1992). A Course in Microeconomic Theory, Eastern Economy Edition, Prentice Hall of India

4. Mas-Colell.A, Whinston &Green, Microeconomic Theory. (1995). Oxford University Press

5. Perloff.J. (2019). Microeconomics, 7th Edition, Pearsom Education.

6. Pindyck, Robert S. and Rubinfield, Daniel L. (2017), 9th Edition Microeconomics, Pearson College

7. Varian, Hal R. (1992). Microeconomic Analysis, 3rd Edition, International Student Edition, W.W. Norton and Company

8. Dixit. A and Nalebuff. B (2010) The Art of Strategy: A Game Theorist's Guide to Success in Business and Life, W.W.Norton &Company

9. Gibbons, Robert (1992), Game Theory for applied economists, Princeton University Press.

10. Eric Rasmussen. Games and Information: An Introduction to Game Theory (2006), Wiley

Articles:

1. Arrow, K.J. (1965) Aspects of the Theory of Risk Bearing. Yrjo Jahnssonin Saatio, Helsinki.

2. Hadar, J. and Russell, W. (1969). Rules for ordering uncertain Prospects. AER.

3. Yan Sun & Shu Li, 2010. The effect of risk on intertemporal choice, Journal of Risk Research, Taylor & Francis Journals, vol. 13(6), pages 805-820, September.

4. Kahneman, D.and Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk.Econometrica. 47(2),pp263-291

Course code: C-02
Course name: Macroeconomics (50 + 10 = 60 Hrs) 4 Credit

Module1: Introduction and background (2 sessions)
Introduction to Macro Economics Objectives and instruments/policies Evolution of Macroeconomic Thought
Introduction to Macro Economics Objectives and instruments/policies. Evolution of macroeconomic thought
classical and Keynes and Keynesian Cross.

Module 2: Key Concepts and macroeconomic indicators (4 sessions)
Circular flow of Economic activity in a five-sector model Sources and Impact of Leakages and Injections in
an economy Introduction to Key concepts i.e. Growth, Inflation and Unemployment through upswings and
downswings of economic activity in a business cycle model. Cyclical expansion and contraction of economic
activity, Economic Growth: Meaning and Measurement Demand Side; measurement of economic growth
through Purchasing Managers Index(PMI) Real and Nominal Growth Saving-Investment approach to growth
(ICOR and investment rate), Macroeconomic Identity Inflation: Meaning, Types and Measurement (Core and
Headline inflation) and Inflation Targeting Unemployment: Meaning, Types and measurement Inflation and
unemployment trade off: Phillips Curve and Okun's law. Discussions of these concepts in advance economies
and emerging market economies based on the recent and contemporary developments.

Module 3: IS-LM & AD-AS Model (2 sessions)
Introduction to IS-LM Model and derivation AD-AS model. Aggregate Demand and Aggregate Supply.
Components of aggregate demand and factors determining aggregate demand Shifts in aggregate demand
causing business fluctuations. The foundations of Aggregate Supply Determinants of aggregate supply
Potential output, output gap Shifts in aggregate supply

Module 4: Open Economy (3 sessions)
Concept of Open Macro Economy in a Balance of Payments (BoP) framework Management of trade and
current account and capital flows, External debt, Investment position External sector vulnerability: Indicator
Analysis. Macroeconomic Identity in an Open Economy and the Twin Deficit Problem. Demand for and
Supply of foreign Exchange. Exchange Rate Regimes: Fixed, Floating and Managed.

Module 5: Macroeconomic Crisis (2 sessions)
Asian crisis, Global Financial crisis, Sovereign debt crisis, Economic crisis of Covid 19 pandemic

Module 6: Policy Intervention (7 sessions)
Introducing inside and outside lags in policy, Fiscal policy: brief introduction to budget analysis financing of
budget deficit from a central bank perspective, issues in debt management and cash management of the
government, and issues in interest rate of the government Monetary Policy: Demand for and Supply of money.
Money creation Process, Objectives and instruments of Monetary Policy. Operating target and operating
procedure of monetary policy. Evolution of Monetary Policy framework in India: Credit Planning, Monetary
Targeting, Multiple Indicator, Interest rate indicator. Liquidity management by the RBI: Concept and
evolution Monetary Policy Committee and Inflation Management Monetary Policy. Procedure Liquidity
Management Stance, Monetary policy transmission concept, Process of monetary policy transmission. Linking
monetary policy to Central Bank intervention in FOREX market. Monetary policy and fiscal policy interface

Module 7: Overview of Advanced topics in Macroeconomics (4 sessions)
Behavioral Foundation Consumption Function: Keynes Psychological Law and Kuznet's consumption puzzle,
Fisher's inter-temporal Choice Model, Permanent Income Hypothesis, Life Cycle Hypothesis and Relative
Income Hypothesis. Investment Function: Neo-Classical Theory of Investment, and Tobin's q-ratio,

Accelerator Theory of Investment (simple and flexible acceleration model Rational expectations equilibrium (Lucas supply equation) model, Real business cycle theory, New Keynesian model of price stickiness (micro foundation of Macroeconomics), random walk

Module 8: Interface with Industry Experts (1 session)

Evaluation pattern

- Quizes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Basic Reading List Text
Book:
Mankiw N.G. & Taylor M.P. (2007) Principles of Macroeconomics (4th Edition) CENGAGE Learning Custom Publishing.

Additional Reading List
Reference Books (Module-wise)

Module 1 and Module 2:
1. Samuelson P.A. & Nordhaus W. D. (2019) Economics (20th edition), Tata McGraw Hill, Chapter Nos.4 and 5
2. Mishkin S. F. (2014) Macroeconomics Policy & Practice (2nd edition), Pearson Publication.
3. Snowden and Vane Dornbusch Rudiger, Fisher Stanley, Startz Richard (2018) Macroeconomics (12th edition), Tata Mc Graw Hill. Chapter Nos 1 and 2, 7, 8, 21 and 22

Module 3:
1. Dornbusch Rudiger, Fisher Stanley, Startz Richard (2018) Macroeconomics (12th edition), Tata Mc Graw Hill, Chapter No. 5
2. Samuelson P.A. & Nordhaus W. D. (2019) Economics (20th edition), Tata McGraw Hill, Chapter Nos. 7 and 15

Module 4:
1.Dornbusch Rudiger, Fisher Stanley, Startz Richard (2018) Macroeconomics (12th edition), Tata Mc Graw Hill, Chapter No. 12
2.Samuelson P.A. & Nordhaus W. D. (2019) Economics (20th edition), Tata McGraw Hill, Chapter Nos. 14 and 15

Module 5:
1.Mishkin Frederic (2017) Macroeconomics (2nd edition), Pearson, Chapter 15 2.
Report on Currency and Finance 2008-09, RBI, Chapter Nos. 2 and 7

Module 6:
1.Mishkin Frederic (2017) Macroeconomics (2nd edition), Pearson, Chapter Nos. 13, 16,
2.Samuelson P.A. & Nordhaus W. D. (2019) Economics (20th edition), Tata McGraw Hill, Chapter Nos. 7 and 10

Module 7:
1.Romar David (2019) Advanced Macroeconomics (4th edition), Tata McGraw Hill, Chapter 8.1 and Chapter 9.3
2.Dornbusch Rudiger, Fisher Stanley, Startz Richard (2018) Macroeconomics (12th edition), Tata Mc
 Graw Hill, Chapter Nos. 13,14, 20.4, 20.5, 20.6 and 24
3.Mishkin Frederic (2017) Macroeconomics (2nd edition), Pearson, Chapter Nos.18 and 19

Additional Reading List: Journal Articles

1. Javier B & Enrique G.M. (2020, March) A Fisherman Approach to Financial Crisis: Lessons from the sudden stops literature. National Bureau of Economic Research. http://www.nber.org/papers/w26915

2. Kanungo A.K. Determinants of Current Account Balance in Emerging Markets: A Study of BRICS 3. Mohanty M.S. Market volatility and foreign exchange intervention in EMEs: what has changed? - An Overview. Bank of International Settlement. BIS Paper No 73.

4. Dua P. (2020, June 23) Monetary policy framework in India. Indian Economic Review https://doi.org/10.1007/s41775-020-00085-3

5. Oliver J.B. & Lawrence H.S. (2017, December) Rethinking Stabilization Policy: Evolution or Revolution? National Bureau of Economic Research. http://www.nber.org/papers/w24179.

6. Barry J. Eichengreen and Donald J. Mathieson The Currency Composition of Foreign Exchange Reserves Retrospect and Prospect, IMF Working Paper https://isni.org/isni/0000000404811396, International Monetary Fund

7. Sophia Chen, Deniz Igan, Nicola Pierri, and Andrea F. Presbitero Tracking the Economic Impact of COVID-19 and Mitigation Policies in Europe and the United States IMF Working Paper July 2020

8. RBI Bulletin July 2022 Fed Taper and Indian FinancialMarkets: This Time is Different

9. Ila Patnaik and Radhika Pandey Four years of the inflation targeting framework No. 325 November 17, 2020, National Institute of Public Finance and Policy, New Delhi

10. National Stock Exchange, Market Pulse, A monthly review of Indian economy and markets, July 2022, Vol. 4, Issue 7

11. Keynote Address by Shri Shaktikanta Das, Governor, Reserve Bank of India - Creating New Opportunities for Growth Delivered at the Bombay Chamber of Commerce and Industry on Thursday, February 25, 2021

12. Address by Shri Shaktikanta Das, Governor, Reserve Bank of India - Seven Ages of India's Monetary Policy at the St. Stephen's College, University of Delhi on January 24, 2020

13. CRISIL Economy First Cut: Inflation sticky, IIP zooms on base effect, July 13, 2022

14. KPMG Global Economic Outlook March 2022, Yael Selfin, Chief Economist, KPMG in the UK.

15. Deloitte, Weekly global economic update, Week of July 25, 2022, by Ira Kalish

16. Ernst and Young, Economy Watch by D. K. Srivastava, July 2022

Additional Reading List: Website Links
1. https://www.imf.org/en/Publications/WEO/Issues/2022/07/26/world-economic-outlook-update-july-2022
2. https://www.federalreserve.gov/newsevents/pressreleases/monetary20220727a.htm
3. https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220721~53e5bdd317.en.html
4. https://www.ecb.europa.eu/press/blog/date/2022/html/ecb.blog220723~c2b1d4b654.en.html
5. https://www.ecb.europa.eu/ecb/educational/explainers/tell-me-more/html/interest_rates.en.html
6. https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=53904
7. https://www.rbi.org.in/Scripts/BS_SpeechesView.aspx?Id=1318   8. https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=21137
9. https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=21132
10. https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=21133
11. https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=21129
12. https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21035
13. https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21038
14. https://dea.gov.in/sites/default/files/MER%20June%202022_Final.pdf
15. https://www.indiabudget.gov.in/doc/frbm1.pdf
16. https://www.rbi.org.in/
17. https://www.federalreserve.gov/

18. https://www.ecb.europa.eu/home/html/index.en.html
19. https://www.imf.org/en/Home
20. https://www.indiabudget.gov.in/
21. https://www.indiabudget.gov.in/economicsurvey/
22. https://ec.europa.eu/info/index_en
23. https://tradingeconomics.com/
24. file:///C:/Users/R.K%20Pattnaik/Downloads/ey-economy-watch-july-2022.pdf

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Course Code: C-03
Course Name: Statistics (50 + 10 = 60 Hrs) 4 Credit

Objective

The objective of this course is to familiarize students with statistical theory and its application as the foundations for data analysis, as well as to acquaint them with basic and intermediate techniques from the field of operations research. Students at the end of the course should be familiar with the analysis and interpretation of data, along with hands on training in both of these fields.

Module 1: Testing of hypothesis
Simple versus composite hypothesis, critical region, type I and type II errors, power of a test, The Decision Rule , trinity of classical tests (Wald test, Lagrange multiplier,likelihood ratio), application of hypothesis testing with known and unknown variances, test for correlation.

Module 2: Special Distributions
 Introduction, The Poisson Distribution, The Normal Distribution, The Geometric Distribution, The Negative Binomial Distribution, The Gamma Distribution, the Central Limit Theorem

Module 3: Estimation and Inference
Introduction, Estimating Parameters: The Method of Maximum Likelihood, the Method of Moments, Interval Estimation, Properties of Estimators, MinimumVariance Estimators: The Cramér-Rao Lower Bound, Sufficient Estimators, Consistency, Bayesian Estimation.

Module 4: Bivariate Distributions
Contingency tables, joint and conditional distributions, odds ratio, test of independence, Analysis of Variance (ANOVA), analysis of covariance.

Module 5: Nonparametric Statistics
Introduction, Sign Test, Wilcoxon Tests, The Kruskal-Wallis Test, The Friedman Test, Testing for Randomness, Comparing Parametric and Nonparametric Procedures

Module 6: Introduction to OR
Basic algorithms; Linear programming (LP), Graphical and Simplex; LP Formulation and LP with solver and sensitivity analysis; Transportation and transshipment models; Simulation; Decision Analysis

Module 7: Advanced algorithms in OR

Goal Programming; Queuing Theory; Networking Models; Markov chains; Data Envelopment Analysis (DEA); Analytical Hierarchical processing (AHP)

Reading List

- Larsen, Richard J., and Morris L. Marx. (2001): An Introduction to Mathematical Statistics and its Applications. 3rd ed. Upper Saddle River, NJ: Prentice Hall.
- Lewis Margaret (2011): Applied Statistics for Economists, Routledge.
- Newbold P. (2007): Statistics for Business and Economics (6th edition or later), Prentice Hall
- Sweet, Stephen and Karen Grace- Martin (2008): Data Analysis with SPSS: A First Course in Applied Statistics, Allyn & Bacon, 3rd Edition.
- Field Andy (2013): Discovering Statistics using IBM SPSS Statistics. Fourth Edition, SAGE
- Quantitative Analysis for Managerial Decision Making By Render and Stair
- Operations Research by Hiller and Liberman
- Operations Research by Hamdy and Taha

Evaluation pattern

- Quizes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-04
Course Name: Fundamentals of Public Policy (50 + 10 = 60 Hrs) 4 Credit

Module 1: Introduction to Public Policy – 6 Hrs   .

i.   Background, Meaning and Importance of Public Policy Basic concepts: Government, Politics, Policy Analysis ii. Principles of Public Policy: Moral coherent, Ethics, Economics, and Politics.
iii.   Ability to participate and influence decisions.
iv.   Scope of Public Policy
v.   Lags in Public Policy

Module 2: Public Policy, Social Science and State - 12 Hrs   i.   The theoretical tradition

ii.   The demand for empirical social knowledge

iii.   State, Profession and transformation

iv.   Two sides of Quality of Intellect: a) Transformation of epistemic constellation, and, b)

Phronesis (Practical Wisdom)

v.   The crisis of useful knowledge: Critique, Retreat, Refinement vi. Why do social sciences matter? Why

does social science inquiry fails? How can it succeed again?

Module 3: Policy Process 12 Hrs

i. Constitutional Framework, The Union & Its Territories, Citizenship, Fundamental Rights, Directive

Principles of State Policy, Fundamental Duties. ii. System of Government, Parliamentary System,

Federal System, Center-state Relations, Inter-state Relations. Relationship between state, judiciary and civil society.

iii. Non-constitutional Bodies, their importance and relation to policy making.

iv. The theories of policy cycle

v. Policy formulation design and tools

Module 4: Policy decision making: Rationality and learning 10 Hrs

i.   Rationality in policy decision making
ii.   Implicit concepts of rationality in Policy decision making (Altruism, Bounded Rationality)
iii.   Rational Choice in Public policy.
iv.   Theories of public policy learning.

Module 5: Constraints on Public Policy 10 Hrs

i. Economic constraints on public policy ii.

Political constraints on public policy iii.

Institutional constraints on public policy

iv. Social constraint on public policy

Evaluation pattern

- Quizzes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-05

Course Name: Public Policy: Theory and Applications (50 + 10 = 60 Hrs) 4 Credit

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Module 1: Business environment, Market dynamics and Public Policy – 6 Hrs

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i.   Introduction to interconnectedness of business environment, market dynamics and public policy.
ii. PESTLE (Political, Economic, Social, Technological, Legal, Environment) Model in the context of Public Policy iii. Market risk and Market dynamics iv. Public Policy as an intervention for correcting business cycle from demand and supply side.

Module 2: Instruments of Public Policy - 10 Hrs

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i.   Theory of Instruments of public policy such as public intervention, market intervention, behavioural interventions.
ii. Instruments of Public Policy: Regulation, Government Management, Taxing and Spending, Market Mechanism, Education, Information etc.
iii. Public Private Participation (PPP Model).

Module 3: Theories of Public Policy – 12 Hrs

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i. Elite   Theory   ii.
     Rational Choice Theory
iii.   Political Systems Theory
iv.   Group Theory
v.   Institutional Theory

Module 4 : Extending design thinking to public policy – 12 Hrs

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i.   Theoretical content and policy application of design thinking.
ii.   Five stage model of design thinking iii.   Policy prototype and in sighting process iv.   Extending Design thinking to public policy – Opportunities and challenges.

Module 5: Extending system thinking to public policy – 10 Hrs

i. Theoretical content and policy application of system thinking ii. Explaining causal loop in public policy iii. Three H model (Head, Heart and Hand) in evaluating public policy.
iv.   Extending system thinking to public policy – opportunities and challenges.

Evaluation pattern

- Quizzes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-06

Course Name : Public Policy: Process, Implementation and Evaluation (50 + 10 = 60 Hrs) 4 Credit

Module 1: Welfare Economics – 8 Hrs

i. Fundamental theorems of welfare economics. ii. Pure exchange economy. Pareto efficiency – Edgeworth box. Walrusian Equilibrium. (4 hrs) iii. Divergence between social and private welfare. Compensation principle.

iv. Government-induced monopoly/monopsony situations and its significance in policy formulation.

Module 2: Policy Process Model and Policy Implementation – 12 Hrs i.

Problem Definition and Agenda Setting ii. Policy Formulation Legitimation Implementation Evaluation iii. Policy Implementation Architecture in India – Bureaucracy

Public Administration, Bureaucracy, civil society and Interest mediation

iv. Policy and regulatory institutions.

Module 3: Budget making process and analysis – 10 Hrs

i. Process of budget making in Three layers of government. ii. Analysis of budget linking it to policy making.

Module 4 : Efficiency, Ethics and Effectiveness in Public Governance– 8 Hrs

i. How to increase efficiency and effectiveness in Public governance. ii. Role of ethics in bringing about effectiveness in Public governance.

iii. Role of ethics acting as a bridge between efficiency and effectiveness.

Module 5: Policy Evaluation – 12 Hrs

i. Approaches, Steps and Nature of Policy Evaluation ii. Types of Policy Evaluation

iii. Policy Lags: Inside and Outside Lags

Evaluation pattern

- Quizes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: C-04

Course Name: Basic Econometrics (50 + 10 = 60 Hrs) 4 Credit

The objective of this paper is to introduce basic econometric techniques that are widely used in empirical work in economics and other related disciplines. It covers the problems faced in estimation and inference in the context of single and multiple equations regression model. The focus is on conceptual understanding and hands on applications using economic data drawn from real-world examples, rather than on formal theoretical proofs alone. By the end of the course, students should be able to develop simple econometric models and interpret the econometric and statistical results reported in other studies.

Module I: The nature of Econometrics and Economic Data
Introduction, Model Specification and applied research, the role of data in model specification, The Structure of Economic Data, Steps in Empirical Analysis, Causality and the Notation of Ceteris Paribus in Econometrics, etc.

Module II: The Classical Linear Regression Model: Estimation and Inference
Ordinary least squares (OLS) estimation, the Classical assumptions, the Gauss-Markov theorem and properties of the OLS estimators, interval estimation and hypothesis testing and prediction, reporting and interpreting regression results, Maximum Likelihood techniques, Restricted Least Square estimation, Likelihood Ratio (LR), Wald and Lagrange Multiplier (LM) Test, Minimum Variance Bound (Rao-Cramer Inequality Theorem).

Module III: Non-linear regression
Conversion of non-linear forms into linear forms, testing linear verses non-linear functional form, appropriateness and relevance of the choice of functional form.

Module IV: Regression Analysis with Qualitative information
Binary (or Dummy) Variables: Exogenous Dummy Variable- Formulating and interpreting coefficients on dummy explanatory variables, interactions involving dummy variables and use of dummy variables in seasonal analysis, piece wise regression analysis, the dummy variable alternative to chow test.

Module V: Multicollinearity
Introduction, perfect verses imperfect Multicollinearity, Consequences, tests for detection and remedies for Multicollinearity.

Module VI: Violation of the OLS Assumptions
Introduction, Consequences of violation of OLS assumption, GLS Estimation- Aitken's generalization of Gauss Marks Theorem. Heteroscedasticity & Autocorrelation: Causes and consequences, diagnostic tests and remedial procedural.

Module VII: Specifications Choosing the Independent Variables and Functional Form Omitted variables
Too few variables, Irrelevant variables: variable overload, Criterion of choice, superfluous variables etc. The use and Interpretation of constant term, Alternative Functional forms, Problem with incorrect functional form, test for choosing the appropriate functional form.

Module VIII:Lagged Variables and Distributed- Lag Models
Introduction, Consequences of applying OLS, Almon's lag approach, Koyak Transformation: Partial adjustment hypothesis and adaptive expectations hypothesis, estimation of distributed lag models etc.

Module IX Simultaneous Equation Models (SEM)

Introduction, Structural, reduced form and final form model, Rational behind the use of SEM - simultaneous bias and inconsistency of the OLS estimator, Problem of Identification: Rank and Orders conditions, Methods of estimation: ILS, 2SLS, Instrumental Variable, LIML (LVR), Mixed estimation Method, 3 SLS and FIML methods.

Note: Students will be taught software packages for performing econometric applications.

BASIC READING LIST:

- Judge, G.G. et al., Introduction to the theory and Practice of econometrics, 2nd Edition John Wiley and Sons.
- Green, William H., Econometric Analysis, Prentice Hall.
- Johnston and Dinardo, Econometric Methods, 4th Edition McGraw-Hill International Edition.
- Wooldridge J., Introductory Econometrics: A Modern Approach, South-Western College Pub.
- Studenmund, A.H., Using Econometrics: A Practical Guide, Addison Wesley Publishing

Company. Boston,Guajarati, Damodar, Basic Econometrics, 4th Edition, Tata McGraw Hill Publishing Company, New Delhi.

ADDITIONAL READING LIST:

Module 2 and 3

- Griffiths, Hill and Judge (1993), Learning and Practicing Econometrics, Wiley, New York, chapter 4-11.
- Judge,G.G. et al., Introduction to the theory and Practice of econometrics, 2nd Edition John Wiley and Sons, Chapter 3 and 5.
- Wooldridge, J. (2009), Introductory Econometrics, 4th edition, South-Western College Pub, Chapter 2-6
- Studenmund, A.H. (2005), Using Econometrics: A Practical Guide, Addison Wesley Publishing Company. Boston, Chapter 2-7
- Johnston and Dinardo (1997), Econometric Methods, 4th edition, McGraw-Hill international Edition, Chapter 2-3 and Chapter 5
- Gujarati, Damodar (2003), Basic Econometrics, 4th Edition, Tata McGraw Hill Publishing Company, New Delhi, Chapter 2-8

Module 2-3 (Articles)

- Hirschfeld, Mary, Robert L. Moore and Brown Eleanor (1995), ―Exploring the Gender Gap on the GRE Subject Test in Economics‖, The Journal of Economic Education, Vol. 26, No. 1, Winter, pp. 3-15
- Lovell, Michael C. (1986), 'Tests of the Rational Expectations Hypothesis', The American Economic Review, Vol. 76, No. 1, March, pp. 110-124
- Mccloskey, Donald N. (1992), 'The Bankruptcy of Statistical Significance' Eastern Economic Journal, Vol. 18, No. 3, Summer, University of Iowa

- Romer, David (1993), 'Do Students Go to Class? Should They?' The Journal of Economic Perspectives, Vol. 7, No. 3, Summer, pp. 167-174

- Saunders, Edward M. Jr. (1993), 'Stock Prices and Wall Street Weather' , The American Economic Review, Vol. 83, No. 5, December, pp. 1337-1345

- Silva, Fabio & Sonstelie Jon (1995), 'Did Serrano Cause A Decline In School Spending?' National Tax Journal, Vol. 48, No. 2, June, pp. 199-215

- Smith, V. Kerry (1971), 'A Note on Student's t Test in Multiple Regression', The Journal of Financial and Quantitative Analysis, Vol. 6, No. 3, June, pp. 1053 -1056

- Amemiya , Takeshi (1980), 'Selection of Regressors', International Economic Review, Vol. 21, No. 2, June, pp. 331-354,

- Bandiera, Orianz (2005), Some Notes on the intuition behind popular Econometric Techniques.

- Boyed, Deric, The Ramsey test of functional form, The Ramsey test of Mis Specification,university of East London

- Buckles Stephen and Freeman V. (1983), 'Male-Female Differences in the Stock and Flow of Economic Knowledge', The Review of Economics and Statistics, Vol. 65, No. 2, May, pp. 355-358

- Kinal, Terrence and Lahiri Kajal (1984), A Note on ―Selection of Regressors‖,
International Economic Review, Vol. 25, No. 3, October, pp. 625-629 ☐ Sander, W. (1985),
'Women, Work, and Divorce', The American Economic Review, Vol. 75,No. 3, June, pp. 519-523

- Yitzhaki, S. (1990), 'On the Sensitivity of a Regression Coefficient to Monotonic Transformations', Econometric Theory, Vol. 6, No. 2, June, pp. 165-169,

- Loeb, Peter D (1992), 'The interactive effect of alcohol and altitude on traffic fatalities.'Southern Economic Journal, July.

- Lovell, Michael C. (1983), 'Data Mining', The Review of Economics and Statistics, Vol. 65,No.1, February, pp. 1-12,

- Moffitt, R. (1990), 'The Econometrics of Kinked Budget Constraints', The Journal of Economic Perspectives, Vol. 4, No. 2, Spring, pp. 119-139

- Comanor William S. and Wilson Thomas A. (1967), 'Advertising Market Structure and Performance', The Review of Economics and Statistics, Vol. 49, No. 4, Nov., pp. 423-440

Module 4
- Gujarati, Damodar (2003), Basic Econometrics, 4 th Edition, Tata McGraw Hill Publishing Company, New Delhi, Chapter 9 and Chapter 15
- Wooldridge, J. (2009), Introductory Econometrics, South-Western College Pub., Chapter 7 and Chapter 17
- Johnston and Dinardo (1997), Econometric Methods, 4th edition, McGraw-Hill international Edition, Chapter 4 and Chapter 13
- Green, William H. (2014). Econometric Analysis, Prentice Hall, Chapter 21 and 22

- Green, William and David A Hensher (2009). Modeling Ordered Choices, NSU Stem School of Business. (https://pdfs.semanticscholar.org/83cb/843ab8542b4ab2ad1cca4c400b7992aad460.pdf)

Articles

- Sommers, Paul M. and Source , Noel Quinton (1982), 'Pay and Performance in Major League Baseball: The Case of the First Family of Free Agents', The Journal of Human Resources, Vol. 17, No. 3, Summer, pp. 426-436
- Halvorsen, R. and Palmquist, R. (1980), 'The Interpretation of Dummy Variables in Semi logarithmic Equations', The American Economic Review, Vol. 70, No. 3, June. pp. 474-475 ☐ Kennedy, P. (1986), 'Interpreting Dummy Variables', The Review of Economics and Statistics, Vol. 68, No. 1, February, pp. 174-175
- Chen, Dhal, and Khan(2002), 'Nonparametric Identification and Estimation of a Censored

Regression Model with an Application to Unemployment Insurance Receipt', Center For Labor Economics University of California, Berkeley Working Paper No. 54

- Amin and Islam (2014), 'Are There More Female Managers in the Retail Sector? Evidence from Survey Data in Developing Countries,' Policy Research Working Paper-6843, World Bank ☐ Chintagunta and Honore (1996), 'Investigating the effects of marketing variables and unobserved heterogeneity in a multinomial probit model,' International Journal of Research in Marketing, Elsevier Science, 13(1996) 1-15

Module 5:

- Gujarati, Damodar (2003), Basic Econometrics, 4th Edition, Tata McGraw Hill Publishing Company, New Delhi, Chapter 10
- Studenmund, A. H. (2005) Using Econometrics: A Practical Guide, Addison Wesley Publishing Company, Boston, Chapter 8
- Madala G.S., Introduction to Econometrics, John Wiley & Sons, Chapter 7

Module 6:

- Judge, G.G. et al., Introduction to the theory and Practice of econometrics, 2nd Edition John Wiley and Sons, Chapter 21
- Wooldridge, J. (2009), Introductory Econometrics, 4th edition, South-Western College Pub, Chapter 12
- Gujarati, Damodar (2003), Basic Econometrics, 4 th Edition, Tata McGraw Hill Publishing Company, New Delhi, Chapter 11-12
- Madala (2001), Introduction To Econometrics, John Wiley & Sons, Chapter 6

Articles

- Brada, Josef C. and Graves, Ronald L. (1988), 'The Slowdown in Soviet Defense Expenditures' Southern Economic Journal, Vol. 54, No. 4, April, pp. 969-984
- Hutchision, M. H. and Pyle, D. H. (1984), 'The Real Interest Rate/Budget Deficit Link: International Evidence', Federal Reserve Bank of San Francisco, Fall

- Maeshiro, A. (1976), 'Autoregressive Transformation, Trended Independent Variables and Autocorrelated Disturbance Terms', The Review of Economics and Statistics, Vol. 58, No. 4, November, pp. 497-500

- Buchline, Randolph E., Canes, Richard E. and Andrew W. Lo (1989), 'Games of survival in the UN newspaper industry', Applied Economics, Vol. 21, pp. 631-649.

- Dornbusch, R.and Pechman, Clarice (1985), 'The Bid-Ask Spread in the Black Market for Dollars in Brazil', Journal of Money, Credit and Banking, Vol. 17, No. 4, Part 1, November, pp.517-520.

- Harvey, A. C. (1976), 'Estimating Regression Models with Multiplicative Heteroscedasticity', Econometrica, Vol. 44, No. 3, pp. 461-465, May

- Louis Amato, Louis and Wilder, Ronald P. (1985), ‗The Effects of Firm Size on Profit Rates in U. S. Manufacturing' Southern Economic Journal, Vol. 52, No. 1, July, pp. 181190

Module 7

- Griffiths, Hill and Judge (1993), Learning and Practicing Econometrics, Wiley, New York, Chapter 21.
- Madala (2001), Introduction to Econometrics, John Wiley & Sons, Chapter 10.
- Wooldridge, J. (2009), Introductory Econometrics, 4th edition, South-Western College Pub., Chapter 10.
- Judge,G.G. et al., Introduction to the theory and Practice of econometrics, 2nd Ed. John Wiley and Sons, Chapter 16.
- Pindyck & Rubinfeld (1997), Econometrics Models & Economic Forecast, 4th edition, McGrawHill/Irwin. Articles

- William Sander (1985), 'Women, Work, and Divorce', The American Economic Review, Vol. 75, No. 3, pp. 519-523.
- Terrence Kinal and Kajal Lahiri (1984):A Note on "Selection of Regressors", International Economic Review, Vol. 25, No. 3 pp., 625-629, October

- Stephen Buckles and Vera Freeman (1983), 'Male-Female Differences in the Stock and Flow of Economic Knowledge', The Review of Economics and Statistics, Vol. 65, No. 2 May, pp. 355-358, May.

- Shlomo Yitzhaki (1990), 'On the Sensitivity of a Regression Coefficient to Monotonic Transformations', Econometric Theory, Vol. 6, No. 2, pp. 165-169, June ☐ Takeshi Amemiya (1980), 'Selection of Regressors', International Economic Review, Vol. 21,No. 2, pp. 331-354, June

- Deric Boyed: The Ramsey test of functional for The Ramsey test of Mis- Specification, university of East London

- Oriana Bandiera: Some Notes on the intuition behind popular Econometric Techniques

- William S. Comanor and Thomas A. Wilson (1967), 'Advertising Market Structure and Performance', The Review of Economics and Statistics, Vol. 49, No. 4, pp. 423-440, November.

- Robert Moffitt (1990), 'The Econometrics of Kinked Budget Constraints', The Journal of Economic Perspectives, Vol. 4, No. 2 ,pp. 119-139, Spring.
- Loeb, Peter D (1992), 'The interactive effect of alcohol and altitude on traffic fatalities

Southern Economic Journal.'

- Michael C. Lovell (1983), 'Data Mining', The Review of Economics and Statistics, Vol. 65,No. 1, pp. 1-12, February

Module 8

- Gujarati, Damodar (2003), Basic Econometrics, 4 th Edition, Tata McGraw Hill Publishing, New Delhi, Chapter 17
- Koutsoyiannis, A (2004), Theory of Econometrics, 2nd edition, Palgrave, N. Y., Chapter 13
- Wooldridge, J. (2009), Introductory Econometrics, 4th edition, South-Western College Pub.,Chapter 10.
- Madala (2001), Introduction to Econometrics, John Wiley & Sons, Chapter 10.
- Judge,G.G. et al., Introduction to the theory and Practice of Econometrics, 2nd Ed John Wiley and Sons, Chapter 16.

Module 9

- Koutsoyiannis, A (2004), Theory of Econometrics, 2nd edition, Palgrave, N. Y., Chapter 14,15,16,17 and 19
- Gujarati, Damodar (2003), Basic Econometrics, 4 th Edition, Tata McGraw Hill Publishing Company, New Delhi, Chapter 18,19 and 20

Article ☐ Angrist and Kruger (2001), 'Instrumental Variables and search for Identification:

From

Supply and Demand to Natural Experiments,' Journal of Economic Perspective, Volume 15, November 4- Fell 2001, P 69-85

Evaluation pattern

- Quizzes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-08

Course Name: Public Economics and Development Economics (50 + 10 = 60 Hrs) 4 Credits

Module 1: Public Economics – 12 Hrs

i.   Public sector and its role in terms of allocation, distribution and stabilization function.
ii.   Public goods – definition and examples. Public goods and efficiency. Externalities, Provision of public goods – voting & public choice. Preference revelation.
iii. Social choice theory – Arrow's theorem, median voter model. Rent seeking and interest groups.

v.   Theory of Public Finance and Taxation. Efficiency vs equity. Incidence of taxation. Canons of taxation. Theories of optimal taxation. Taxation and economic efficiency. Issues in tax policy in India.

iv. Theory of fiscal federalism. Structure of fiscal federalism in India, principles governing intergovernmental transfers.

v.   Cost and Benefit Analysis - Measuring the Costs of Public Projects. Discounting Future Benefits. Cost-Effectiveness Analysis.

Module 2: Public Expenditure – 6 Hrs   i.   Theory of Public expenditure

ii. Management and control of public expenditure

Module 3: Growth and Development – 14 Hrs

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i.   Economic growth models – Harrod-Domar, Solow – convergence of growth rates. Endogenous growth theory.

ii. Models of balanced and unbalanced growth. Dual economy models – migration, urban unemployment, informal sector.

iii. Measurement of social dimensions – physical quality of life index, Human development index, environmentally adjusted Net Domestic Product.

Module 4: Challenges to sustainable development – 12 Hrs

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i.   Environment and government – common property resources. Environmental impact analysis in cost-benefit framework.

Module 5 : Overview of Indian Economic development – 6 Hrs

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i.   Overview of Indian economy before liberalisation. Liberalisatiion of Indian economy – implementation and outcomes/performance.

ii. Poverty and inequality in India – statistics. Employment and unemployment. Labour markets.

Evaluation pattern

- Quizzes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code : PP-A-22

Course Name: Business Analytics (50 + 10 = 60 Hrs) 4 Credit

COURSE OUTCOMES:
1. To develop a proficiency in analysing data using different techniques. (Module 1 to 8)

2. To learn how to build and apply predictive models to forecast future outcomes.
(Module 2 and 3)
3. To gain knowledge of business outcomes. (Module 1 to 8)
4. To apply optimization techniques to solve business problems. (Module 1 to 8)
5. To understand the role of business analytics in strategic decision making. (Module 3 and 5)
6. To learn skills and techniques for the application of R. (Module 4,6 and 7)

Module 1 - The need for Analytics and Understanding Analytics
- Decision Making – Heuristics and Biases
- The need for analytics
- Impact of analytics on business
- Being analytically competitive
- The difference between analytics and BI
- Introduction to the business Analytics model
- Types of analytics
- Models and algorithms in Analytics
- The Analytics Methodology

Module 2 - Tool and Tech Landscape
- A review of technology used in data storage, data processing, and data science
- Popular tools used in Data Science and when to use each

Module 3 - Descriptive Analytics with excel and Tableau
- An introduction to Tableau
- Using descriptive statistics in analysis and reporting
- Advanced reporting with Tableau

Module 4 - R programming
- An introduction to R
- Importing and exporting data in R
- Data Manipulation with R
- Advanced Data Manipulation with R
- Data Visualization with R

Module 5 - Data Pre-processing
- Data Exploration and Assessment for Data Science
- Identifying and dealing with noise in Data
- Preparing data for Data Science Modelling

Module 6 - Predictive Models in R
- Linear Regression Models and their applications
- Logistics Regression Models and Their applications
- Time Series Forecasting

Module 7 - ML Models in R
- Clustering Algorithms and application
- Decision Tree Algorithms and applications
- Random Forest Algorithms and applications

Module 8 - Storytelling with Data ●
   Communicating data science results
   ● Effective presentation skills
   ● Using Data visualizations for storytelling

REFERENCES:
1. Provost, F., & Fawcett, T. (2013). Data science for business: What you need to know about data mining and data-analytic thinking. O'Reilly Media.
2. Davenport, T. H., & Harris, J. G. (2017). Competing on analytics: Updated, with a new introduction. Harvard Business Press.
3. Evans, J. R., & Paquette, L. (2019). Business analytics: Methods, models, and decisions. Pearson.
4. Shmueli, G., Bruce, P. C., & Patel, N. R. (2019). Data mining for business analytics: Concepts, techniques, and applications in R. John Wiley & Sons.
5. Witten, I. H., Frank, E., Hall, M. A., & Pal, C. J. (2016). Data mining: Practical machine learning tools and techniques. Morgan Kaufmann.
6. Kelleher, J. D., Mac Namee, B., & D'Arcy, A. (2015). Fundamentals of machine learning for predictive data analytics: Algorithms, worked examples, and case studies. MIT Press.
7. Few, S. (2019). Show me the numbers: Designing tables and graphs to enlighten. Analytics Press.
8. Cairo, A. (2019). The truthful art: Data, charts, and maps for communication. New Riders.

Evaluation pattern

   • Quizes – 10 marks
   • Mid-term – 15 marks
   • Assignment – 15 marks
   • End Semester Exam – 60 marks

Course Code: PP-A-10

Course Name: Overview of Primary, Secondary and Tertiary Sectors: Theory and Practice (50 + 10 = 60 Hrs) 4 Credit

Module 1: Sectors – 25 Hrs

   i.   Social Security and Welfare Policy
   ii.   Urban governance
   iii.   Rural agriculture and food policy
   iv.   Technology and Data policy

Module 2: Macro development Sectors – 25 Hrs

   i.   Disaster Management
   ii.   Water and Natural Resource Management
   iii.   Public Health

iv.   Industrial Development and Entrepreneurship

Evaluation pattern

- Quizes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-09
Course Name: Money, Banking, Trade and Financial Markets (3 -Credit) 45 Hrs

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Module 1: Introduction to Money, Banking and Financial market - 4 Hrs

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i. Why Study Money, Banking, and Financial Markets?
ii. Evolution of the Payments System
iii. Inter-linkages of money, Banking and Financial Markets

Module 2: Supply of Money – 4 Hrs

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i. Factors that determine the money supply
ii. Issues regarding endogenous and exogenous supply of money
iii. Central Bank Digital Currency

Module 3: Demand for money – 5 Hrs

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i. Quantity theory of money
ii. Keynes' Liquidity Preference Theory
iii. Friedman's Modern Quantity Theory of Money
iv. Empirical Evidence on the demand for money.

Module 4: Understanding the behaviour of interest rates – 8 Hrs

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i. Interest Rates and Returns and Real and Nominal Interest Rates
ii. Determinants of Asset Demand
iii. Supply and Demand in the Bond Market
iv. Supply and Demand in the Market for Money
v. Term Structure of Interest Rates

Module 5: Banking structure and management of financial institutions– 8 Hrs

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i. Basic Banking
ii. The Bank Balance Sheet
iii. Off-Balance-Sheet Activities
iv. General Principles of Bank Management- Liquidity, Asset, Liability and Capital Adequacy management
v. Banking Structure and Competition

Module 6: Overview of financial market: Money, Government securities and Forex 8 Hrs

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i. Overview of money Market
ii. Overview of government securities Market
iii. Overview of forex market.

iv. Interlinkages of Money, Bond and Foreign Exchange
Market

Module 7: Trade and policy 8 Hrs

I.	Theories of trade - Absolute & comparative advantage – Gains from trade, offer curves,
II.	terms of trade.
III.	H-O theory – factor abundance & factor intensity, Leontief Paradox.
IV.	Intra- industry trade.
V.	Supply and demand analysis of trade and tariff.
VI.	Economics of protectionism.
VII.	Trade policy – Tariffs & welfare, Non-tariff barriers. Regional trade agreements.
VIII.	WTO and Multilateral trade negotiations.

Evaluation pattern

- Quizes – 10 marks
- Mid-term – 10 marks
- Assignment – 10 marks
- End Semester Exam – 45 marks

Course Code: PP-A-12
Course Name: Research Methodology: Technique and Design (4 Credit - 50 Hrs)

Module 1- Scientific Methods of Research 10 Hrs
- Definition of Research
- Aims, objectives and scope of social research, Assumptions, Operations and Aims of
  Scientific Research, Steps in research, Formulation of a research problem, Operationalisation of concepts, Research Process: conceptual, Empirical and Analytical Phases of Research, Essentials Criteria of Scientific methods.

Module 2 - Research Designs and Logic in research 10 Hrs
- Experimental research design: Pre experimental, True experimental and Quasi experimental research design, RCT.
- Non-experimental research design: Descriptive, exploratory, Explanatory and Monitoring and Evaluation
- Reliability and Validity- Face, content, construct, convergent, concurrent, and predictive validity
- Inductive and deductive reasoning; Measurements
- Non-random and random errors, Scaling and composite indices

Module 3 – Data collection – Quantitative and Qualitative 10 Hrs
- Quantitative: Survey methods and their application to public health research, Conceptual framework; Mixed-method design; Survey design and planning, sampling; Construction of questionnaire; Data collection and analysis; Large sample surveys – Techniques
- Qualitative: Types of qualitative research, approaches in qualitative Research-Ethnography, Grounded Theory, Historical research
- Qualitative data collection methods: In Depth Interview, Focus Group Discussion, Observation, Case Study, Participatory methods, KII
- Sampling and Analytical approaches- thematic analysis, content analysis, narrative analysis.

Module 4 – Communication and Proposal Development 10 Hrs
- Scientific writing, Writing and Presentation of literature review, report, papers, manuals, Research Brief, Plagiarism, Ethics in research
- Select a topic, identify a research gap, Frame research questions, Develop objectives
- Write proposal for grant

Module 5 - Monitoring and Evaluation 10 Hrs
- Principles of Monitoring & Evaluation: Introduction to M&E – roles and uses; Results paradigm: inputs, activities, outputs, outcomes and impact/goal; M&E in Project Cycle; Stakeholder Analysis – who, needs and roles.
- M&E Frameworks: LFA; Logic model; Results frame; M&E plan in general
- Theory of Change: Theory of change – project design, M&E frame Knowledge &
- Skills for efficiency and productivity in development

- Quantitative Impact Evaluation: Estimation of Counterfactual – Theoretical concept; Descriptive comparison - Why simple difference is insufficient; Difference in Differences (Did); Regression Discontinuity Design (RDD); Propensity Score Matching (PSM) Reading List

1. Creswell, J. W. & Creswell, J. D. Research Design. (2023), Ed. 6, New Delhi: Sage Pub.,xxvii, 291p. ISBN: 9781071817971

2. Chaddah, P. (2018). Ethics in Competitive Research: ISBN: 978-9387480865 {PDF}

3. Kilonzo, S.M. & Ojebode, M. Research Methods for Public Policy, In Aiyde, E.M. & Muganda, B (2023) Public Policy and Research in Africa, Springer Nature, pp.67-85, ISBN: 978-3-03099723-6

4. Kothari, C. R. (2004) Research Methodology: Models and Techniques, New Delhi: New Age Publishers, 401p. ISBN: 978-81-224-1522-3

5. Kothari. C. R. (2004). Quantitative Techniques (2nd edition). Vikas Publishing House Pvt. Ltd., New Delhi

6. Forum (1994). Focus Group for Health Research. Health Transition Review, 4(1): 81- 104.

7. Sharma, R. A. (2000). Essentials of Scientific Behavioural Research'. R. Lall book depot, Meerut (UP).

8. Singh, K. (2007). Quantitative social research methods. Sage.

9. Bernard, H. R. (2017). Research methods in anthropology: Qualitative and quantitative approaches. Rowman & amp; Littlefield.

10. Kish, L. (1995). Survey Sampling.", John Wiley and Sons Inc., New York.

11. Lohr, S. (1999). Sampling design and analysis. Duxbury Press Pacific Grove. CA, 221, 249.

12. Lwanga, S. K., Lemeshow, S., & World Health Organization. (1991). Sample size determination in health studies: a practical manual. World Health Organization.

13. Singleton R.A. and Straits B.C. (1999). Approaches to Social Research. Oxford University Press.

14. Young P. V. (1994). Scientific Social Surveys and Research (4th Edition). Prentice- Hall, New York.

15. Tolley, E. E., Ulin, P. R., Mack, N., Robinson, E. T., & Succop, S. M. (2016). Qualitative methods in public health: a field guide for applied research. John Wiley & Sons.

16. Bernard, H. R., Wutich, A., & Ryan, G. W. (2016). Analyzing qualitative data: Systematic approaches. SAGE publications.

17. Green, J., & Thorogood, N. (2004). Qualitative methods for Health Research sage. New York.

18. Silverman, D. (2006). Credible qualitative research. Interpreting qualitative data, 271- 314.

Evaluation pattern

- Quizes – 10 marks
- Mid-term – 15 marks
- Assignment – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-13

Course Name: Soft Skill Development: Presentation and Communication (Oral and written) (2 Credit-

30 Hrs)

Module 1: Conceptual Insights to Soft Skill Development (10 hours)
  i   Ice Breaker and Training Needs Analysis.
  ii   Building self-confidence
  iii Self-motivation & Proactive approach
  iv   Positive Attitude, Self-esteem & intellectual humility

Module 2: Communication Skill 1 (10 hours)
  i   Know Yourself SWOT and Johari window
  ii   Basic Communication Skills
  iii Non-verbal Communication & Presentation skills
  iv   Interview techniques and Group Discussions.
  v   Goal setting – Decision making

Module 3: Communication Skill 2 (10 hours)
    I. Conflict management & Interpersonal relations
   ii. Time management & priority setting English
   iii. Common errors iv. Email writing
   v. Report writing
   vi. Preparing CV

Evaluation pattern

- End Semester Exam – 50 marks

Course Code: PP-A-14
Course Name: Impact of Public Policy on Primary, Secondary and Tertiary Sectors Country Experiences: Select Advanced and Emerging Markets (3 Credit- 45 Hrs)

Module 1: Critical Thinking as an input for practice analysis
Conceptual underpinnings and insights. 2 Hrs

Module 2: Primary Sector 12 Hrs

The primary sector would include selected Countries- China, Israel, Europe and USA. The impact analysis will be taught in the framework of critical thinking.

Module 3: Secondary Sector 20 Hrs

I. Germany as an advanced market and India as an emerging market. ii. Industrialization in Germany beginning in 19th century and coming up to present times iii. Impact of industrialization in Germany and in other countries - impact on economy, society and polity.

ii. Focus areas-
a. Labour Market - organized & unorganized
b. Education & Skill Development
c. Transport - development of railways & inland water transport sector
d. Trends in Urbanization
e. Impact on Environment, Politics & international relations

iii. India- Impact of public policy on areas-
a. Labour Market - organized & unorganized
b. Education & Skill Development
c. Transport - development of railways, roads & inland water transport sector d. Trends in Urbanization
e. Impact on Environment, Politics & international relations

Module 4: Tertiary Sector 12 Hrs

The tertiary sector will include Financial sector with special reference to financial stability, digital payments and currency, and regulations.

Evaluation pattern

- Quizzes – 10 marks
- Assignment – 15 marks
- Midterm Exam – 15 marks

- End Semester Exam – 60 marks

Course Code: PP-A-15
Course Name: Project Management 1 (4 Credit- 50 Hrs)

Module 1- Conceptual and Theoretical Insight of Project Management (20 hours)
    I. Introduction and Scope to the course
    ii. Project Process, Formulation and Project Life Cycle
    iii. Project Communication
    iv. Project Stakeholders
    v. Project Team and Team Leadership
    vi. Typology of Unknowns-Known and Unknown, Impossible Unknown, Unknown Unknown

Module 2- Difference between public and private sector project (20 hours)
    i. Macro parameters in Project selection in private and public sector.
    ii. Classifying projects based on the need, resource, cost-benefit and Project profile.
    iii. Factors affecting the project- Cost overrun, Time lag and social cost benefit.
    iv. Managing project risks in public and private sector.
    v. Multilateral Projects (World Bank and Asian Development Bank)

Module 3- Parameters of ease of doing business (30 hours)
    I. Project regulation
    ii. Public Private Partnership
    iii. Public policy Insight
    iv. Sustainability and Environmental Impact Assessments
    V. Mediated Negotiation Practice
   vii. Governance and Ethics

Module 4 – Sector wise specification of the Projects (20 hours)
    I. Healthcare sector
    ii. Welfare and Social Security
    iii. Education
    iv. Environment and Energy
    V. Mining

Evaluation pattern

- Quizzes – 10 marks
- Assignment – 15 marks

- Midterm Exam – 15 marks
- End Semester Exam – 60 marks

Course Code: PP-A-16
Course Name: Project Management 2: **Monitoring and Evaluation- Country Experiences** (4 credit- 50 +10 Hours)

Module 1: Monitoring and Evaluation (20 hours)
   I. Evaluation using three generations implementation public policy approaches
   a. Top-Down Approach
   b. Bottom-Up Approach
   c. Hybrid Approach ii. Evaluation through prototype models- Design thinking models a. End users
   b. Prototype models

Module 2: Performance Appraisal (20 hours)
   I. Characteristics of Performance Appraisal
   a. Rating Scales
   b. Feedback
   c. Cognitive Process Assessment
   d. Balanced Score Card
   e. Public Service Agreements
   f. Strategic Plans

Module 3: Country Experiences: Problems and Review (20 hrs)
   I. Problems of project management in emerging market economies
   a. Ineffective project planning and preparation
   b. Faulty appraisal and selection processes
   c. Defective project design
   d. Inadequate project execution, operation and supervision ii. Country Reviews A. New Zealand
   b. Singapore
   c. India
   d. China

Evaluation pattern

- Quizzes – 10 marks
- Assignment – 15 marks
- Midterm Exam – 15 marks
- End Semester Exam – 60 marks

Semester 4 (20 Credit – 300 Hrs)

Course 17. Case Study Writing on Impact Analysis of Public Policy (2 Credit- 30 Hrs)

Course 18. Evidence-based Policy Evaluation (2 Credit- 30 Hrs)

Course 19. Project Assignment (2 Credit- 30 Hrs)

Course 20. Field Work (6 Credit- 90 Hrs)

Course 21. Dissertation (8 Credit- 120 Hrs)

Evaluation pattern

- Case Study – 10 marks
- Policy Evaluation – 10 Marks
- Field Work Report – 30 marks
- Project Assignment – 20 marks
- Dissertation – 30 marks