

SIKKIM UNIVERSITY

(A Central University Established by an Act of Parliament of India, 2007)

**LEARNING OUTCOME - BASED
CURRICULUM**

PH.D. (ECONOMICS) COURSEWORK

(With effect from Academic Session 2023-24)



DEPARTMENT OF ECONOMICS

SIKKIM UNIVERISTY

6TH MILE, TADONG - 737102

GANGTOK, SIKKIM, INDIA

PREAMBLE

The PhD programme in Economics aims at bringing the doctoral student to the global research frontier, and at enhancing the student's capability to make a significant contribution to research. The programme is specifically designed for students, who are interested in pursuing research activities or careers in economic research within the public and private sectors. This programme purports to provide doctoral students with a solid foundation in economic theory, as well as the empirical grounding needed to carry out high-quality theoretical and empirical research. It intends to develop multiple skills of the doctoral students, especially mastering the theoretical and analytical concepts driving the research topic, the methodology of developing models, and data analysis using advanced econometric methods and tools.

DOCTORAL STUDENTS ATTRIBUTES

Doctoral student attribute includes disciplinary knowledge and understanding in economics and generic skills that students should acquire and demonstrate. Some of the characteristics the doctoral student should demonstrate are as follows:

DSA1: Disciplinary Knowledge and Understanding: Comprehensive knowledge and coherent understanding of Economics as a discipline and its inter-relationship with other disciplines e.g, Environmental Science, Computer application, Data sciences, Mathematics, Statistics, History, Sociology, law and others. Understand the current and emerging developments in the field of Economics. Procedural knowledge required for conducting research in Economics and related fields.

DSA2: Critical Thinking and Problem Solving: Capability to critically analyze and evaluate policies, theories, practices and issues related to economics by following scientific approaches to knowledge development. Capacity to extrapolate one's learning and competencies in real life situation.

DSA3: Research Related Skills: Curiosity for new knowledge, capability for inquiry, identifying problems, formulate hypothesis, test hypothesis, analyze, interpret and draw conclusions. Ability to plan execute and report the results of research study abiding by the principles of research ethics.

DSA4: Communication Skills: Listen carefully, read texts and research papers analytically and express thoughts and ideas effectively in written and oral form.

DSA5: Digital Literacy and Skills: Capability to use ICT in variety of learning and work situations and to use appropriate softwares for creating content and research work. Develop, design and deliver courses using appropriate digital resources.

DSA6: Value inculcation: Ability to imbibe and practice constitutional, humanistic, ethical, and moral values, practice responsible global citizenship. Adopt appropriate behaviour and participate in actions for environmental conservation, protection and sustainable development.

PROGRAMME LEARNING OUTCOMES (PLOs)

PLO1: This degree programme provides opportunity to students to study the application of economics in depth which someone may wish to apply for building blocks in area of research.

PLO2: To demonstrate a global perspective and awareness on working of an economy. The course will sharpen analytical skills of students through integrating knowledge of economic theory with decision- making techniques. It will demonstrate professionalism, self-awareness, leadership and effective communication skills.

PLO3: Use information and knowledge effectively through scanning, organizing, synthesizing and analysing the data in order to abstract meaning and to share knowledge.

PLO4: An ability to use current techniques, skills and tools necessary for the study of economic aspects.

PLO5: An ability to recognize the importance of professional development by pursuing the doctorate studies or face competitive examinations that offer challenging and rewarding careers in economics.

PLO6: Conceptual building through the application of conceptual economics foundations to solve practical decision-making problems, both individually and as part of teams using techniques such as case analysis, projects and assignments.

PLO7: An ability to demonstrate a critical awareness of current issues in economics which are informed by leading edged research and practice in the field.

PLO8: To deepen specialization in a particular professional direction.

PLO9: Helps in shaping the future of specialist by individual cognitive activities aimed at obtaining new, knowledge, solving theoretical and practical problems, self-education and self-realization.

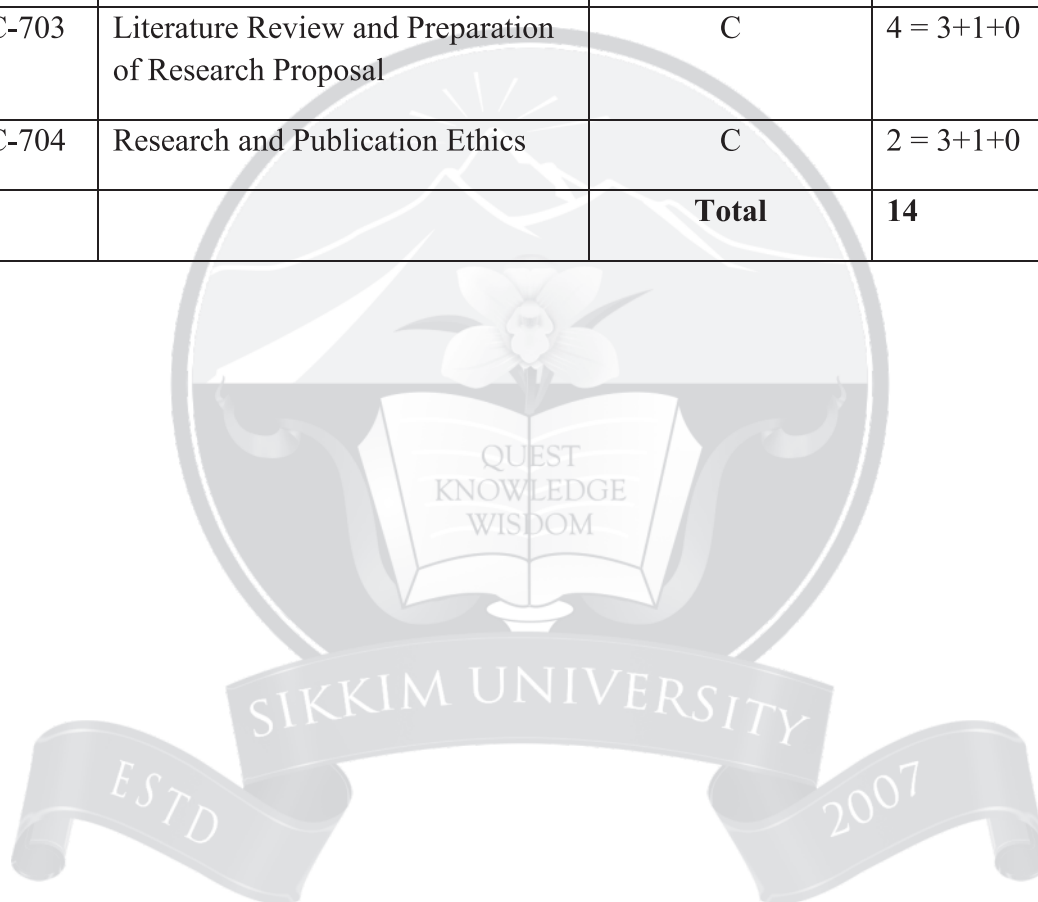
PLO10: Understanding the role of pricing policy in economic development; the operation mechanism of commodity markets and price discovery.

PLO11: Help the student to gain understanding about latest development in economic theory.



CURRICULUM STRUCTURE

Code	Papers	Core/Value Added/Open /Elective/Skill Enhancement Course/Dissertation	Credits (L+T+P)	Marks
ECO-C-701	Research Methodology	C	4 = 2+1+1	100
ECO-C-702	Emerging Areas of Research in Economics	C	4 = 3+1+0	100
ECO-C-703	Literature Review and Preparation of Research Proposal	C	4 = 3+1+0	100
ECO-C-704	Research and Publication Ethics	C	2 = 3+1+0	50
		Total	14	350



RESEARCH METHODOLOGY

ECO-C-701

Semester: First Semester
L+T+P: 2+1+1=4 Credits

Course Level: 700
Lecture: 30 Hrs+ Tutorial: 15 Hrs+ Practical: 30 Hrs

Total Marks: 100

COURSE LEARNING OUTCOMES:

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

CLO1: To define and articulate the various steps in research process in economics

CLO2: To critically review the relevant literature on the topic and to identify the research gaps

CLO3: To differentiate between alternative research approaches, philosophies and strategies in economics-oriented research and ascertain their limitations and implications

CLO4: To design and execute field and non-field-based studies to investigate relevant economic problems

CLO5: To describe, compare and contrast descriptive and inferential statistics, and present examples of their use in research in economics

CLO6: To demonstrate and use computer software programs to analyze relevant economic problems using large databases and appropriate econometric tools, and to derive and interpret the results

CLO7: To apply and critically evaluate the main research methods that are typically applied in economics

CLO8: To ascertain, describe, compare and formulate the core components of research proposal and thesis

CLO9: To participate in scholarly conversation and debate within the academic community in the spirit of collegiality

UNIT I: INTRODUCTION TO PHILOSOPHY OF SCIENCE AND RESEARCH METHODOLOGY

Meaning and Significance of Social Science Research, Research in Science and Non-Science Disciplines, Different Approaches to Research, Research Process in Economics, Formulation of Research Problem, Crafting a Research Proposal— Its Role and Elements, Surveying the Literature, Popular versus Scholarly Literature, Types of Reasoning, Critical Reading, Theorizing the Research, Formulation of Hypotheses, The Research Design

UNIT II: TYPES AND SOURCES OF DATA

Secondary Data Sources— Availability, Features and Methods of Data Collection, NSSO, RBI, Economic Census, Population Census, ASI, PROWESS, EPWRF and others. Primary Data— Observation, Interview and Questionnaire/Schedule, Pilot Survey, Reliability and Validity. Sampling and Data Collection— Population and Sample, Sample Size, Types of Sampling— Probability and Non-probability Sampling, Error Minimization, Evaluation of Time and Cost, Sample Weights, Choice of Sampling Design.

UNIT III: DATA COMPILATION AND ANALYSIS

Data Extraction, Importing Data, Data Entry, Editing, Cleaning and Coding (using MS Access, MS Excel, SPSS), Classification and Tabulation. Methods of Analysis— Descriptive Statistics, Graphs, Correlation, Regression Analysis, Problems in Regression Analysis, Dummy Variables and its uses, Qualitative Response Regression Models, Limited Dependent Variable Regression Models, Regression Models with Count Data, Method of Instrumental Variables (*the aim will be to explain econometrics from a practical point of view, thus the focus will be on interpretation and generalisation. These topics will be taught with STATA software*)

UNIT IV: NEW DEVELOPMENTS/COMMUNICATING THE FINDINGS

Endogeneity and Causality, Self-Selection, Hurdle Models, Decomposition Methods, Matching Methods, Distributional Effects. Communicating the Findings— Interpretation and Generalisation, Systematisation of Findings, Presentation of Results, Writing a Research Report, References and Bibliography, Oral Presentation, Copyright and Plagiarism.

SUGGESTED TEACHING LEARNING STRATEGIES

- Lecture-cum discussion, Class room reading, Narration, PowerPoint presentations, Clarification pauses and collaborative note-taking, Web streaming, Video lessons, Library readings
- Peer instruction, Active review sessions, Debates, Class, small-group and pair discussion, Fishbowl, Brainstorming
- Computer-based learning, Spreadsheets and Databases, Hands-on data analysis
- Case-Based Learning, Field visits, Surveys
- Essays, Assignments, Term papers, Case studies, Group projects, Panel discussions, Seminar presentations

ASSESSMENT FRAMEWORK

Assessment	Written Modes	Oral Modes	Integrated Modes
Formative Assessment (50 Marks)	Class Test, Open Book Test, Self-Test, Online Test, Review of Literature, Objective Test, Class Assignment, Peer assessment, Paraphrasing, Exercise Classes, Home Assignment, Annotated Bibliographies, Proposal Writing, Reports, Book Review, Article Review	Oral Test, Viva-Voce, Hot seat, Brainstorming, Peer tutoring, Student becomes teacher, Group Discussion, Debates, Quiz, Seminar	Presentations, Seminars, Field Assignments, Surveys, Hands-on Data Analysis, Poster Presentations
Summative Assessment (50 Marks)	Summative assessment will be based on the semester-end examinations conducted by the university.		

Note: Teachers can choose any mode of formative assessment as per nature of the CLO.

SUGGESTED READINGS:

- Anderson, D.R., Sweeney, D.J. and Williams, T.A. (2001), Statistics for Business and Economics, Cengage Learning, New Delhi.
- Angrist, J. and Pischke, J. (2009). Mostly harmless econometrics: an empiricist's companion. Princeton University Press.
- Chandrasekhar, C.P. and Tilak, J.B.G. (2001), India's Socio-economic Database: Surveys of Selected Areas, Tulika, New Delhi.
- Ethridge, Don. (1995) Research Methodology in Applied Economics. Ames IA: Iowa State University Press.
- Goode & Hatt (2006): Methods in Social Research, McGraw Hill, California
- Gujarati, D. (2014), Econometrics by Example, Palgrave Macmillan, Hampshire, UK
- John Creedy (2008), Research without Tears: From the First Ideas to Published Output, Edward Elgar, Cheltenham, UK.
- Manski, C. 1995. Identification Problems in the Social Sciences. Cambridge: Harvard University Press
- Steven A. Greenlaw (2005) Doing Economics: A Guide to Understanding and Carrying Out Economic Research
- Wooldridge, J. M. (2002), Econometric Analysis of Cross Section and Panel Data, MIT Press, Cambridge MA.

EMERGING AREAS OF RESEARCH IN ECONOMICS
ECO-C-702

Semester: First Semester
L+T+P: 3+1+0=4 Credits

Course Level: 700
Lecture: 45 Hrs+ Tutorial: 15 Hrs+ Practical: 0 Hrs

Total Marks: 100

COURSE LEARNING OUTCOMES:

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

CLO1: define and articulate emerging areas of research in Economics

CLO2: discuss various sectors of economy, its interlinkages and the emerging theories laws and various concepts in Economics

CLO3: differentiate the emerging theories, laws and various concepts in Economics and allied fields

CLO4: design and execute field and non-field-based studies to investigate relevant economic problems

CLO5: demonstrate and analyze the emerging theories and concepts in Indian and world economy.

CLO6: formulate innovative ideas in describing, comparing, expanding the existing concepts with new information and will be able to implement them through new procedures or through modifying the existing procedure.

CLO7: apply and critically evaluate various development programmes and policies in the filed of agriculture, industry and social sectors

COURSE OUTLINE

UNIT I: SOCIAL CAPITAL, GOVERNANCE AND DEVELOPMENT

Social capital formation for economic development— understanding and measuring social capital, trust, cooperation; Corruption, governance, development and displacement; collective action in unequal society; Multi-dimensional poverty; Economics of disaster and risk reduction; Green growth.

UNIT II: GEOPOLITICS, ECONOMIC INTEGRATION AND DEVELOPMENT

Economics of global terrorism, sectarian movement, territorial autonomy; India's economic relation with the neighbours, Indian-ASEAN economic cooperation, India-China trade relation; India's North-eastern region and its neighbour, Act East Policy.

UNIT III: AGRICULTURE AND SOCIAL SECTOR

Peri-urban agriculture, Contract farming, Farmer-producer organisation, National agriculture marketing system, Commodity market, Locavore movement; Tourism Demand— modelling tourism, micro foundations of tourism demand, Education and Development— New Educational Policy, Financing public and private higher education; Economics of health and health care

UNIT IV: INFRASTRUCTURE, IT AND INSTITUTIONAL ECONOMICS

Information technology and economic development; Information and free riders; Technology, production and institutions; Institutional economics— institutional structure and production; Bargaining, social cost, transaction cost and theory of firm; Economies of agglomeration; Contract theory; Gravity in weightless economy. Selected

SUGGESTED TEACHING LEARNING STRATEGIES

- Lecture-cum discussion, Class room reading, Narration, PowerPoint presentations, Clarification pauses and collaborative note-taking, Web streaming, Video lessons, Library readings
- Peer instruction, Active review sessions, Debates, Class, small-group and pair discussion, Fishbowl, Brainstorming
- Computer-based learning, Hands-on data analysis
- Essays, Assignments, Term papers, Case studies, Group projects, Panel discussions, Seminar presentations

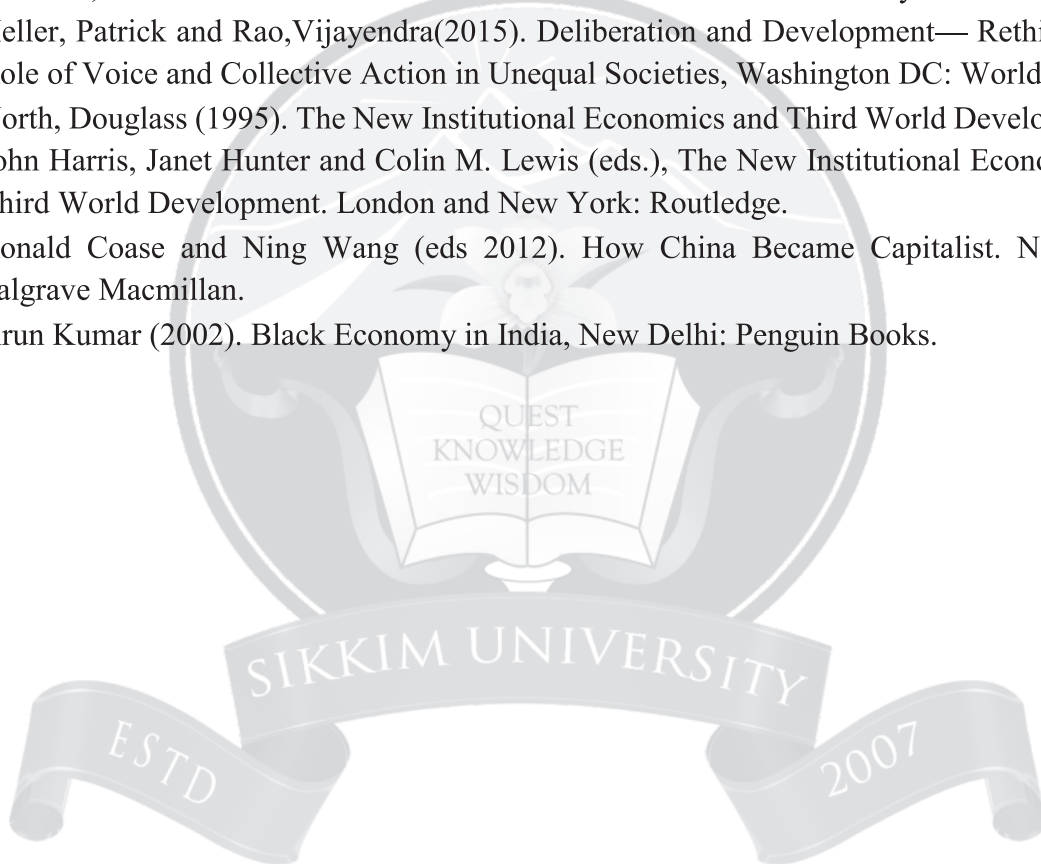
ASSESSMENT FRAMEWORK

Assessment	Written Modes	Oral Modes	Integrated Modes
Formative Assessment (50 Marks)	Class Test, Open Book Test, Self-Test, Online Test, Objective Test, Class Assignment, Peer assessment, Home Assignment	Oral Test, Viva-Voce, Hot seat, Brainstorming, Peer tutoring, Student becomes teacher, Group Discussion, Debates, Quiz, Seminar	Presentations, Seminars, Hands-on Data Analysis, Poster Presentations
Summative Assessment (50 Marks)	Summative assessment will be based on the semester-end examinations conducted by the university.		

Note: Teachers can choose any mode of formative assessment as per nature of the CLO.

Suggested Readings:

- Christiaan Grootaert and Thierry van Bastelaer (2001). Understanding and measuring social capital: A synthesis of findings and recommendations from the social capital initiative, Social Capital Initiative Working Paper 24, Washington DC: World Bank.
- Partha Dasgupta and Ismail Serageldin (Eds. 1999). Social Capital: A Multifaceted Perspective, Washington, D.C.: The World Bank.
- Robert D. Putnam (2000). Bowling Alone, New York: Simon & Schuster.
- Tisdell Clement. A (Eds. 2013). Handbook of Tourism Economics— New Applications and case Studies, New Jersey: World Scientific. 3
- Sinclair, T. M and Stabler, Mike (2002). The Economics of Tourism, New York: Routledge.
- Hart, O. and Holmstrom, B. (2016). Contract Theory, The Royal Swedish Academy of Sciences, The Committee for the Prize in Economic Sciences in Memory of Alfred Nobel.
- Heller, Patrick and Rao, Vijayendra (2015). Deliberation and Development— Rethinking the Role of Voice and Collective Action in Unequal Societies, Washington DC: World Bank
- North, Douglass (1995). The New Institutional Economics and Third World Development. In John Harris, Janet Hunter and Colin M. Lewis (eds.), The New Institutional Economics and Third World Development. London and New York: Routledge.
- Ronald Coase and Ning Wang (eds 2012). How China Became Capitalist. New York: Palgrave Macmillan.
- Arun Kumar (2002). Black Economy in India, New Delhi: Penguin Books.



LITERATURE REVIEW AND PREPARATION OF RESEARCH PROPOSAL
ECO-C-703

Semester: First Semester
L+T+P: 0+3+1=4 Credits

Course Level: 700
Lecture: 0 Hrs+ Tutorial: 45 Hrs+ Practical: 30 Hrs

Total Marks: 100

COURSE DESCRIPTION

This course aims to expose the newly enrolled research scholars to practical works, train them how to apply the theories, research techniques and models. It also aims to train the scholars how to write a dissertation and make them to present their work effectively. This paper will be evaluated through assignments and presentations spread across the semester and will not have any end semester examination. Faculty members are expected to guide the scholars intensively in this course through one-to-one interaction. The scholars will be distributed to the faculties depending on their areas of interest and specialization.

SUGGESTED TEACHING LEARNING STRATEGIES

- PowerPoint presentations, Web streaming, Video lessons, Library readings
- Peer instruction, Active review sessions, Debates, Class, small-group and pair discussion, Fishbowl, Brainstorming
- Panel discussions, Seminar presentations

ASSESSMENT FRAMEWORK

Assessment	Oral Modes	Integrated Modes
Formative Assessment	Group Discussion, Debates, Quiz, Seminar	Presentations, Seminars,

**RESEARCH AND PUBLICATION ETHICS
ECO-C-704**

Semester: First Semester
L+T+P: 1+1+0=2 Credits

Course Level: 700
Lecture: 15 Hrs+ Tutorial: 15 Hrs+ Practical: 0 Hrs

Total Marks: 50

COURSE LEARNING OUTCOMES:

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

CLO1: learn about the philosophy of research

CLO2: familiarise with the scientific conduct in research activity

CLO3: acquaint with ethics in publishing

CLO4: learn publication databases and research metrics

CLO5. get acquainted with the process involved in publishing journal articles

COURSE OUTLINE

UNIT 1: PHILOSOPHY AND ETHICS

Introduction to philosophy: definition, nature and scope, concept, branches. Ethics: definition, moral philosophy, nature of moral judgements and reactions

UNIT 2. SCIENTIFIC CONDUCT

Ethics with respect to science and research; Intellectual honesty and research integrity; Scientific Misconducts: Falsification, Fabrication, and Plagiarism (FFP). Redundant publications: duplicate and overlapping publication, salami slicing. Selective reporting and misrepresentation of data

UNIT 3: PUBLICATION ETHICS

Publication Ethics: definition, introduction and importance; Best practices – standards setting initiatives and guidelines: COPE, WAME, etc.; Conflict of interest; Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice-versa, types; Violation of publication ethics, authorship and contributorship; Identification of publication misconduct, complaints and appeals; Predatory publishers and journal; Publication Misconduct: Subject specific ethical issues, FFP, authorship; Conflict of interest; Complaints and appeals: examples and fraud from India and abroad; Software tools (2Hrs) a. Use of plagiarism software like Turnitin, Urkund and other open source software tools

UNIT 4: OPEN ACCESS PUBLISHING AND PUBLICATION MISCONDUCT

Open access publications and initiatives; SHERPA/RoMEO online resource to check publisher copyright and self-archiving policies; c. Software tool to identify predatory publications developed by SPPU; Journal finder/journal suggestion tools, viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.; Databases and Research Metrics: Databases: Indexing databases, Citation

databases, Web of Science, Scopus, etc.; Research Metrics (3Hrs): Impact factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score; Metrics: h-index, g index, i10 index, altmetrics

SUGGESTED TEACHING LEARNING STRATEGIES

- Lecture-cum discussion, Class room reading, Narration, PowerPoint presentations, Clarification pauses and collaborative note-taking, Web streaming, Video lessons, Library readings
- Peer instruction, Active review sessions, Debates, Class, small-group and pair discussion, Fishbowl, Brainstorming
- Computer-based learning, Hands-on data analysis
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ASSESSMENT FRAMEWORK

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Summative Assessment (50 Marks)	Summative assessment will be based on the semester-end examinations conducted by the university.		

Note: Teachers can choose any mode of formative assessment as per nature of the CLO.

Suggested Readings:

- Bird, A. (2006). Philosophy of Science. Routledge.
- Chaddah, P. (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarised.
- Deakin, L. (2014). Best practice guidelines on publishing ethics: A publisher's perspective. Wiley. Indian National Science Academy. 2019. Ethics in Science Education, Research and Governance
- Israel, M. (2015). Research ethics and integrity for social scientists: Beyond regulatory compliance. SAGE Publications.
- Israel, M., & Hay, I. (2009). Research ethics for social scientists: Between ethical conduct and regulatory compliance. Sage. Kimmel, A. J. (1988). Ethics and values in applied social research. Sage Publications. MacIntyre, A. (198). A short history of ethics. Routledge.
- Mertens, D. M., & Ginsberg, P. E. (2009). The handbook of social research ethics. Sage Publications.
- Resnik, D.B. 2011. What is Ethics in Research and why it is important? National Institute of Environmental Health Sciences. Yadav, Santosh Kumkar. 2000. Research and Publications Ethics. Ishwar Books.