Overview: This course has total 5 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics. The course is designed to provide the knowledge about the identification of research misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics (citations, h-index, impact factor, etc.) and plagiarism tools are also introduced in this course.

Unit 1: Philosophy, Ethics and Scientific Conduct

Introduction to philosophy: definition, nature and scope, concept, branches. Ethics: definition, moral philosophy, nature of moral judgments and reactions.
Ethics with respect to science and research, Intellectual honesty and research integrity, Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP), Redundant publications: duplicate and overlapping publications, salami slicing; Selective reporting and misrepresentation of data

Unit 2: Publication Ethics

Publication ethics: definition, introduction and importance; Best practices / standards setting initiatives and guidelines: COPE, WAME, etc.; Conflicts of interest; Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types; Violation of publication ethics, authorship and contributor ship; Identification of publication misconduct, complaints and appeals; Predatory publishers and journals practice
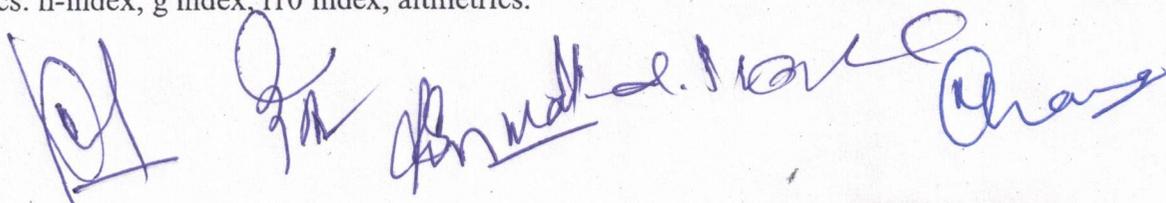
Unit 3: Open Access Publishing

Open access publications and initiatives; SHERPA/ROMEO online resource to check publisher copyright & self-archiving policies; Software tool to identify predatory publications developed by SPPU; Journal finder / journal suggestion tools viz. Elsevier Journal Finder, Springer Journal Suggestor, etc.

Unit 4: Publication Misconduct

Subject specific ethical issues, FFP, authorship; Conflicts of interest; Complaints and appeals: examples and fraud from India and abroad; Software tools: Use of plagiarism software like Turnitin, Urkund and other open source software tools

Unit 5: Databases and Research Metrics

Databases: Indexing databases; Citation databases: Web of Science, Scopus, etc.; Research Metrics; Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score; Metrics: h-index, g index, i10 index, altmetrics.

Suggested Readings

- The Ethics of Teaching and Scientific Research By Miro Todorovich; Paul Kurtz; Sidney Hook.

- Research Ethics: A Psychological Approach By Barbara H. Stanley; Joan E. Sieber; Gary B. Melton

- Research Methods in Applied Settings: An Integrated Approach to Design and Analysis By Jeffrey A. Gliner; George A. Morgan Lawrence Erlbaum Associates, 2000

- Ethics and Values in Industrial-Organizational Psychology By Joel LefkowitzLawrence Erlbaum Associates, 2003.