

**Course Objectives**

The objective of this course is to familiarize students with basic concepts of Research ethics and different quantitative metrics used for measuring research impact. To aware the students about different types of research misconduct and to avoid plagiarism.

**Course Outcome:**

1. Remember and understand the basic concepts related to research ethics and metrics.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**UNIT-1: RESEARCH ETHICS**

- 1.1 Ethics with respect to science and research, Intellectual Honesty and research Integrity
- 1.2 Principles of Research Ethics
- 1.3 Research Communication: Definition, Types of research publications
- 1.4 Open access scholarly communication, Definition, Types, Need, Merits and Pitfalls, Major Open Access Initiatives

**UNIT-2: RESEARCH MISCONDUCT**

- 1.1 Research Misconduct, definition, types: Falsification, Fabrication, Plagiarism, Conflict of Interest, and Salami Slicing
- 1.2 Predatory Publications, Definition, Characteristics, Identification and avoidance
- 1.3 Copyright and Creative Commons
- 1.4 Guidelines against Research Misconduct: UGC, COPE and WAME

**UNIT-3: PLAGIARISM**

- 1.1 Definition and concepts of plagiarism, detection of plagiarism, different plagiarism detection tools
- 1.2 Different types of plagiarism-Global Plagiarism, Verbatim Plagiarism, Paraphrasing Plagiarism, Patchwork Plagiarism, Self Plagiarism
- 1.3 Citing, Quoting and paraphrasing- Dos and Don'ts, acceptable practices and procedure
- 1.4 Regulations of Plagiarism in India- UGC

**UNIT-4: RESEARCH METRICS**

- 1.1 Research Metrics, Definition, Need, Purpose, function and types
- 1.2 Journal Level Metrics: Journal Impact Factor, CiteScore, SJR, SNIP
- 1.3 Author Level Metrics: h-index, g-index, i10-index, m-index
- 1.4 Citation Databases and Indexing Services: Web of Science, Scopus, and Google Scholar