Ethics in Research

Module Overview: This module will introduce students to the ethical principles and guidelines that govern research involving in subjects, and the importance of ethical considerations in research, key ethical principles, ethical review processes, and how to apply ethical guidelines in their own research projects/papers.

Module Objectives:

1. Understand the importance of research ethics in academic research.
2. Identify key ethical principles that guide research involving in subjects.
3. Learn about ethical review processes and procedures.
4. Apply ethical guidelines to own research projects.
5. To learn the various database and their uses.

Learning outcomes-

1. Students will comprehend philosophical principles, as well as social and moral ideals.
2. Students will be able to perform their research in a reliable and responsible manner.
3. Students will demonstrate knowledge of open-access publication.
4. Students will investigate many types of misconduct in publishing.
5. Students will calculate the successes using citations and other bibliometric counters.

Unit and Number	Contents
Unit -1 Philosophy and Ethics	1.1 Introduction to Philosophy: 1.2 Origin of Philosophy 1.3 Characteristics of Philosophy 1.4 Common sense and Philosophy 1.5 Relationship between Philosophy Science 1.6 Ethics: Definition, nature of moral judgments and reactions.
Unit -2 Scientific Conduct and Publication Ethics	2.1 Integrity and Ethics 2.2 Ethics with Respect to Science & Research 2.3 Intellectual Honesty & Research Integrity: Scientific Misconducts & Redundant Publications 2.4 Selective Reporting and Misrepresentation of data 2.5 Publication ethics: definition, introduction and importance 2.6 Conflicts of interest
Unit -3 Open Access Publishing	3.1 Concept of OER (Open Educational Resources) 3.2 Concept of open license 3.3 Open access publishing 3.4 Open access content management
Unit -4 Publication Misconduct and Software tools	4.1 Publication misconduct: Definition, concept 4.2 Problems that lead to unethical behavior and vice versa, 4.3 Types of unethical behavior 4.4 Violation of publication ethics, authorship and contributorship 4.5 Identification of publication misconduct, complaints and appeals 4.6 Predatory publishers and journals 4.7 Ethical issues in various Disciplines 4.8 Fabrication, Falsification and Plagiarism (FFP)

Unit -5 Databases and research metrics	5.1 Use of reference management software like 5.1.1 Mendeley, 5.1.2 Zotero etc. and 5.2 Anti-plagiarism software 5.2.1 Turnitin, 5.2.2 Urkund and 5.2.3 Indexing databases 5.3 Citation databases: 5.3.1 Web of Science, 5.3.2 Scopus etc. 5.4 Research Metrics 5.4.1 Impact factor of journal as per Journal Citation Report, 5.4.2 SNIP (Source Normalized Impact per Paper) 5.4.3 SJR (SCImago Journal Rank) 5.4.4 IPP (impact per publication) 5.5 Cite Score Metrics: 5.5.1 h-index, 5.5.2 g-index, 5.5.3 i-10 index, 5.5.4 altmetrics

References:

1. Bird,A. (2006). Philosophy of Sciences. Routledge
2. MacIntyre, Alasdair (1967). A Short History of Ethics. London
3. P.Chandah. (2018). Ethics in Competitive Research: Do not get scooped; do not get plagiarized.
4. National Academy of Sciences, National Academy of Engineering and Institute of Medicine (2009)., National On being a Scientist: A guide to responsible conduct in Research : third edition, National Academies Press

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