

UNIT-I

Part A: Philosophy and Ethics

1. Introduction to philosophy: definition, nature and scope, concept, branches.
2. Ethics: definition, moral philosophy, nature of moral judgments and relations.

Part B: Scientific Conduct

1. Ethics with respect to science and research.
2. Intellectual honesty and research integrity.
3. Scientific misconducts: falsification, fabrication, and plagiarism.
4. Redundant publications: duplicate and overlapping publications, salami slicing.
5. Selective reporting and misrepresentation of data.

UNIT 2: Publication Ethics

1. Publication ethics: definition, introduction and importance.
2. Best practices/standards setting initiatives and guidelines: COPE, WAME, etc.
3. Conflicts of interest.
4. Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, types.
5. Violation of publication ethics, authorship and contributor ship.
6. Identification of publication misconduct, complaints and appeals.
7. Predatory publishers and journals.

UNIT 3

Part A: Open Access Publishing

1. Open access publications and initiatives.
2. SHERPA/RoMEO online resources to check publisher copyright and self-archiving policies.
3. Software tool to identify predatory publications developed by SPPU.
4. Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggested, etc.

Part B: Publication Misconduct

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

UNIT 4:

Part A: Databases

Indexing databases, Citation databases: Web of Science, Scopus, etc.

Part B:

Research Metrics

Impact Factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score. Metrics: h-index, g index, i10 index, altmetrics.

Books Recommended:

1. Bird, A. (2006) Philosophy of Science, Routledge.
2. MacIntyre, Alasdair (1967) A short story of Ethics, London.
3. P.Chaddah, (2018) Ethics in competitive Research , Do not get scooped; do not get plagiarized, ISBN: 978-9387480865.
4. National Academy of Sciences, National Academy of Engineering, and Institute of Medicine (2009) on being a scientist: guide to Responsible conduct in research: Third Edition, National Academies Press.
5. Resnik, D.B(2011) What is ethics in research and why it is important , National Institute of Environmental Health Sciences , 1-10, retrieved from, <http://niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>.
6. Beall, J (2012). Predatory publishers are corrupting open access, Nature, (489 (7415), 179-179, <http://doi.org/10.1038/489179a>.
7. Indian National Science Academy (INSA) Ethics in Science and Education, research and government (2019) ISBN: 978-81939482-1-7 http://www.insaindia.res.in/pdf/Ethics_Books.pdf.