

COURSE II – RESEARCH AND PUBLICATION ETHICS (RPE)

Course Outcomes:

Students will be able to:

- CO 1. Be aware about the publication ethics and publication misconducts
- CO 2. Understand the philosophy of science and ethics and research integrity
- CO 3. Develop hands-on skills to identify research misconduct and predatory publications.
- CO 4. Differentiate indexing and citation databases, open access publication and research metrics
- CO 5. Use plagiarism tools

Theory

Philosophy and Ethics (3 hrs.)

- a) Introduction to philosophy: definition, nature and scope, concept, branches
- b) Ethics: definition, moral philosophy, nature of moral judgement and reactions

Scientific Conduct (5hrs.)

- a) Ethics with respect to science and research
- b) Intellectual honesty and research integrity
- c) Scientific misconducts: falsification, fabrication, and plagiarism (FFP)
- d) Redundant publications: duplicate and overlapping publications, salami slicing
- e) Selective reporting and misrepresentation of data

Publication ethics (7hrs.)

- a) Publication ethics: definition, introduction and importance
- b) Best practices/ standards setting initiatives and guidelines: COPE, WAME. etc.
- c) Conflicts of interest
- d) Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, types
- e) Violation of publication ethics, authorship and contributorship
- f) Identification of publication misconduct, complaints and appeals
- g) Predatory publishers and journals

Practice

Open access publishing (4hrs.)

- a) Open access publications and initiatives
- b) SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
- c) Software tool to identify predatory publications developed by SPPU
- d) Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

Publication misconduct (4hrs.)

A. Group discussions (2 hrs.)

- a) Subject specific ethical issues, FFP, authorship
- b) Conflicts of interest
- c) Complaints and appeals: examples and fraud from India and abroad

B. Software tools (2 hrs.)

Use of plagiarism software like Turnitin, Uukund and other Open Source software tools

Databases and research metrics (7 hrs.)

A. Databases (4 hrs.)

- a) Indexing databases
- b) Citation databases: Web of Science, Scopus, etc.

B. Research metrics (3 hrs.)

- a) Impact factor of journal as per journal citation report, SNIP, SJR, IPP, Cite score
- b) Metrics: h-index, g index, i10 index, altmetrics

References:

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2. MacIntyre, A. (1967) *A Short History of Ethics*. London.
3. Chaddah, P. (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: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.
5. Rensik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1-10. Retrieved from <https://www.niehs.nih.gov/resources/bioethics/whatis/index.cfm>
6. Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489(7415), 179-179. <https://doi.org/10.1038/489179a>
7. Indian National Science Academy (INSA), *Ethics in Science Education, Research and Governance* (2019), ISBN:978-81-939482-1-7. https://www.insaindia.res.in/pdf/Ethics_Book.pdf

