

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.)

- a) 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. 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: 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

