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## COURSE II-RESEARCH AND PUBLICATION ETHICS (RPE)

### Course Outcomes:

Students will be able to:

- CO1. Understand the philosophy of science, ethics and research integrity
- CO2. Aware about the publication ethics, intellectual honesty and plagiarism
- CO3. Inculcate best practices and publication ethics .
- CO4. Learn about types of research publications and conflict of interest in publication.
- CO5. Expertise in data bases, concept of impact factor and research metrics.

### Theory

#### Unit I. *Philosophy and Ethics*

Introduction to philosophy: definition, nature and scope ,concept, branches, Ethics: definition, moral philosophy, nature of moral judgment and reactions

(4 Hours)

#### Unit II. *Scientific Conduct*

Ethics with respect to science and research, Intellectual honesty and research integrity  
Scientific misconducts: falsification ,fabrication, and plagiarism(FFP), Redundant publications: duplicate and overlapping publications, salami slicing, selective reporting and misrepresentation of data

(4 Hours)

#### Unit III. *Publication ethics*

Publication ethics: definition, introduction and importance

Best practices/standards setting initiatives and guidelines: COPE,WAME.etc.

Conflicts of interest

Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa types

Violation of publication ethics, authorship and contributorship

Identification of publication misconduct, complaints and appeals

Predatory publishers and journals

(7 Hours)

### Practice

#### Unit IV. *Open access publishing*

Open access publications and initiatives

SHERPA/RoMEO online resource to check publisher copyright &self-archiving policies

Software tool to identify predatory publications developed by SPPU

Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal

Suggester, etc.

(4 Hours)

#### Unit V. *Publication misconduct*

A. Group discussions (2hrs.)

Subject specific ethical issues, FFP, authorship

Conflicts of interest

Complaints and appeals: examples and fraud from India and abroad

(4 Hours)

B. Software tools (2 Hours)

Unit IV. *Databases and research metrics*

(7 Hours)

A. Databases (4hrs.)

Indexing databases

Citation databases: Web of Science, Scopus, etc.

B. Research metrics (3hrs.)

Impact factor of journals per journal citation report, SNIP, SJR, IPP, Citescore

Metrics: h-index, g index, i<sup>10</sup> index, altmetrics

*References:*

1. Bird, A. (2006). *Philosophy of Science*. Routledge.
  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](https://www.insaindia.res.in/pdf/Ethics_Book.pdf)
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