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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, i¹⁰ 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
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