

## RESEARCH AND PUBLICATION ETHICS

### COURSE OBJECTIVES:

- To provide the basics philosophy of science and ethics, research integrity, publication ethics.
- To give hands on experiences to access open access and online resources available
- To identify research misconduct and predatory publications.
- To learn about indexing and citation databases, research metrics (citations, h-index, impact factor, etc.) and plagiarism tools.

### UNIT I: Philosophy and Ethics (4 hrs)

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

### UNIT 2: Scientific Conduct (4 hrs)

1. Ethics with respect to science and research
2. Intellectual honesty and research integrity
3. Scientific misconducts: Falsification, Fabrication and Plagiarism (FFP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data

### UNIT 3: Publication Ethics (7 hrs)

1. Publication ethics: definition, introduction and importance
2. Best practices/standards setting initiatives and guidelines: The Committee on Publication Ethics (COPE), World Association of Medical Editors (WAME) etc.
3. Conflicts of interest
4. Publication misconduct: Definition, concept, problems that lead to unethical behavior and vice versa, types
5. Violation of publication ethics, authorship and contributorship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals

### UNIT 4: Open Access Publishing (4hrs)

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies

3. Software tool to identify predatory publications developed by Savitribai Phule Pune University (SPPU): UGC-CARE list of journals
4. Journal finder/journal suggestion tools viz. Journal Author Name Editor (JANE), Elsevier Journal Finder, Springer Journal Suggester, etc.

### **UNIT 5: Publication Misconduct, Databases and research metrics (11 hrs)**

1. Subject specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad
4. Use of reference management software like Mendeley, Zotero etc. and anti-plagiarism software like Turnitin, Urkund
5. Indexing databases
6. Citation databases: Web of Science, Scopus etc.
7. Impact factor of journal as per Journal Citation Report, Source-normalized Impact per Paper (SNIP), The Impact per Publication (IPP), SCImago Journal Rank (SJR), CiteScore
8. Metrics: h-index, g-index, i-10 index, altmetrics

### **COURSE OUTCOMES:**

- Have knowledge on the basics philosophy of science and ethics, research integrity, publication ethics.
- Trained in accessing the available open access and online resources
- Have knowledge to identify the research misconduct and predatory publications.
- Know indexing and citation databases, research metrics (citations, h-index, impact factor, etc.) and plagiarism tools.

### **References:**

1. Bird, A. (2006). *Philosophy of Science*. Routledge.
2. MacIntyre, Alasdair (1967). *A short History of Ethics*. London
3. P. Chaddah, (2018). *Ethics in Competitive Research: Do not get scooped; do not get plagiarized*. Self Published
4. National Academy of Science, National academy od Engineering and Institute of Medicine. (2009). *On being a scientist: A guide to responsible conduct in research: Third edition*, National Academies Press.
5. Resnik, D.B.(2011). *What is ethics in research & why is it important*. National Institute of Environmental Health Sciences, 1-10. Retrieved from [https://online225.psych.wisc.edu/wp-content/uploads/225-Master/225-UnitPages/Unit-10/Resnik\\_NIH\\_2015.pdf](https://online225.psych.wisc.edu/wp-content/uploads/225-Master/225-UnitPages/Unit-10/Resnik_NIH_2015.pdf)
6. Beall, J. (2012). *Predatory publishers are corrupting open access*. *Nature*, 489(7415), 179-179. Retrieved from [https://www.nature.com/news/polopoly\\_fs/1.11385!/menu/main/toPColumns/topLeftColumn/pdf/489179a.pdf](https://www.nature.com/news/polopoly_fs/1.11385!/menu/main/toPColumns/topLeftColumn/pdf/489179a.pdf)

7. *Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), Retrieved from <https://www.insaindia.res.in/pdf/>*