

## COURSE 2 – RESEARCH AND PUBLICATION ETHICS (RPE)

30 hrs.

### **Course Outcomes:**

- CO1 Know the philosophy of research and publication.*
- CO2 Understand scientific conduct and misconducts.*
- CO3 Realise the ethics of research publication.*
- CO4 Know open access publishing of research articles.*
- CO5 Able to use various software tools to identify predatory publications and publication misconduct.*
- CO6 Learn different types of databases and research metrics.*

### **THEORY**

#### **MODULE 01: PHILOSOPHY AND ETHICS (3 hrs.)**

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

#### **MODULE 02: SCIENTIFIC CONDUCT (5 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.

#### **MODULE 03: PUBLICATION ETHICS (7 hrs.)**

1. Publication ethics: definition, introduction and importance.
2. Best practices/standards setting initiatives and guidelines: COPE, WAME etc.
3. Conflicts of interest.
4. Publication misconduct: definition, concept, problems that lead to unethical behaviour 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.

### **PRACTICE**

#### **MODULE 04: OPEN ACCESS PUBLISHING (4 hrs.)**

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 SPPU.
4. Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester etc.



## MODULE 05: PUBLICATION MISCONDUCT (4hrs.)

### A. Group Discussions (2 hrs.)

1. Subject specific ethical issues, FFP, authorship.
2. Conflicts of interest.
3. Complaints and appeals: examples and fraud from India and abroad.

### B. Software tools (2 hrs.)

Use of plagiarism software like Turnitin, Urkund and other open source software tools.

## MODULE 06: DATABASES AND RESEARCH METRICS (7 hrs.)

### A. Databases (4 hrs.)

1. Indexing databases
2. Citation databases: Web of Science, Scopus etc.

### B. Research Metrics (3 hrs.)

1. Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score.
2. Metrics: h-index, g index, i10 index, altmetrics.

## References

1. Beall, J. 2012. Predatory publishers are corrupting open access. Nature, 489 (7415), 179.
2. Bird, A. 2006. Philosophy of Science, Routledge.
3. Chaddah, P. 2018. Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865.
4. Indian National Science Academy (INSA). 2019. Ethics in Science Education, Research and Governance. ISBN:978-81-939482-1-7. [http://www.insaindia.res.in/pdf/Ethics\\_Book.pdf](http://www.insaindia.res.in/pdf/Ethics_Book.pdf)
5. MacIntyre, Alasdair. 1967. A Short History of Ethics, London.
6. National Academy of Sciences, National Academy of Engineering and Institution of Medicine. 2009. On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition, National Academies Press.
7. Resnik, D.B. 2011. What is ethics in research & why is it important, National Institute of Environmental Health Sciences, 1-10, Retrieved from <http://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>

## COURSE 3 - REVIEW OF LITERATURE

### Course Outcomes:

- CO1 Understand the method of writing a report on literature review by focusing on the specialization/research problem.
- CO2 Gain the knowledge of current research findings year wise in the proposed research area.
- CO3 Build a confidence to initiate the research on the research topics/problem based on the secondary sources.