

| COURSE DESCRIPTION | | |
|----------------------|---------------------------------|------------------|
| Course Code | | Course Credit: 2 |
| Course Name | Research and Publication Ethics | |
| L-T-J-P | 2-0-0-2 | |
| Pre-requisite | Nil | |
| Year of Introduction | 2021 | |

| COURSE OBJECTIVES | |
|-------------------|---|
| 1 | To focus on the basics of philosophy of science & ethics, research integrity and publication ethics |
| 2 | To understand research misconduct and predatory publications |
| 3 | To be aware of indexing and citation databases, open access publications, research metrics (Citations, h-index, Impact Factor, etc.). |

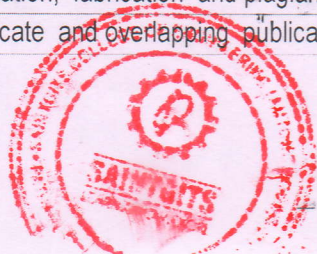
| COURSE OUTCOMES (COs) | | REVISED BLOOM'S TAXONOMY LEVEL |
|--|--|--------------------------------|
| At the end of the course students will be able to: | | |
| CO1 | Understand the concept of ethics, research integrity & philosophy of research. | 2 |
| CO2 | Understand the predatory publications and publication misconducts. | 2 |
| CO3 | Use plagiarism tools and journal finders | 2 |
| CO4 | Understand the databases and research metrics | 2 |

| COURSE IMPLEMENTATION CLOCK (IN HOURS) | |
|--|---------|
| Course introduction with thorough briefing of Course Objectives and expected Course Outcomes | 1 Hr. |
| Course content delivery hours | 24 Hrs. |
| Internal Assessment : Assignments / Tutorial / Quizzes / Group Discussion | 4 Hrs. |

| SYLLABUS |
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| This course has total 6 units focusing on basics of philosophy of science and ethics, research integrity and publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course. |

COURSE CONTENT

| Module-I (Theory) | | COs | Hrs. | ESE Marks |
|--|-----------------------|-----|------|-----------|
| Module Title | PHILOSOPHY AND ETHICS | | | |
| Introduction to philosophy: definition, nature and scope, concept, branches | | 1 | 2 | 15% |
| Ethics: definition, moral philosophy, nature of moral judgements and reactions | | 1 | 1 | |
| Module-II (Theory) | | COs | Hrs. | ESE Marks |
| Module Title | SCIENTIFIC CONDUCT | | | |
| Ethics with respect to science and research | | 1 | 1 | 15% |
| Intellectual honesty and research integrity | | 1 | 1 | |
| Scientific misconducts: falsification, fabrication and plagiarism (FFP) | | 1 | 1 | |
| Redundant publications: duplicate and overlapping publications, salami slicing | | 1 | 1 | |



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|---|---|-----|------|-----------|
| Selective reporting and misrepresentation of data | | 1 | 1 | ESE Marks |
| Module-III (Theory) | | COs | Hrs. | |
| Module Title | PUBLICATION ETHICS | | | |
| Publication ethics: definition, introduction and importance | | 1 | 1 | 15% |
| Best practices /standards setting initiatives and guidelines: COPE, WAME, etc. | | 1 | 1 | |
| Conflicts of interest | | 1 | 1 | |
| Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types | | 1 | 1 | |
| Violation of publication ethics, authorship and contributorship | | 1 | 1 | |
| Identification of publication misconduct, complaints and appeals | | 2 | 1 | |
| Predatory publishers and journals | | 2 | 1 | |
| Module-IV (Practice) | | COs | Hrs. | ESE Marks |
| Module Title | OPEN ACCESS PUBLISHING | | | |
| Open access publications and initiatives | | 2 | 1 | 15% |
| SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies | | 2 | 1 | |
| Software tool to identify predatory publications developed by SPPU | | 2 | 1 | |
| Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal suggestor etc. | | 2 | 1 | |
| Module-V (Practice) | | COs | Hrs. | ESE Marks |
| Module Title | PUBLICATION MISCONDUCT | | | |
| Group Discussions: | | 2 | 2 | 20% |
| 1. Subject specific ethical issues, FFP, authorship | | | | |
| 2. Conflicts of interest | | | | |
| 3. Complaints and appeals: examples and fraud from India and abroad | | | | |
| Software tools: | | 3 | 2 | |
| Use of plagiarism software like Turnitin, Urkund and other open source software tools | | | | |
| Module-VI (Practice) | | COs | Hrs. | ESE Marks |
| Module Title | DATABASES AND RESEARCH METRICS | | | |
| Databases: | | 4 | 4 | 20% |
| 1. Indexing databases | | | | |
| 2. Citation databases: Web of Science, Scopus, etc. | | | | |
| Research Metrics | | 4 | 3 | |
| 1. Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score | | | | |
| 2. Metrics: h-index, g index, i10 index, altmetrics | | | | |
| TEXT BOOKS | | | | |
| 1 | Bird, A. (2006). <i>Philosophy of Science</i> . Routledge. | | | |
| 2 | MacIntyre, Alasdair (1967) <i>A Short History of Ethics</i> . London. | | | |
| 3 | P. Chaddah, (2018) <i>Ethics in Competitive Research: Do not get scooped; do not get plagiarized</i> , ISBN:978- 9387480865 | | | |
| REFERENCE BOOKS | | | | |
| 1 | National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). <i>On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition</i> . National Academies Press. | | | |
| 2 | Resnik, D. B. (2011). <i>What is ethics in research & why is it important</i> . National Institute of Environmental Health Sciences, 1-10. | | | |



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| 3 | Beall, J. (2012). Predatory publishers are corrupting open access. Nature, 489(7415), 179-179. |
| 4 | Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), ISBN :978-81-939482-1-7 |

| MODES OF EVALUATION | SCORE WEIGHTAGE / SPLIT MARKS |
|--|--|
| Continuous Internal Evaluation (CIE) | Weightage will be given for active participation |
| Assignments / Tutorial / Quizzes / Group Discussion | 40 |
| End Semester Examination (ESE) | 60 |
| Total | 100 |
| End Semester Examination Pattern | |
| Total marks: 60. Duration is for 3 Hours. | |
| Question paper is having 3 parts – namely Part A, Part B and Part C | |
| Part A carries question from Modules 1 and 2, each question carries 9 marks | |
| Part B carries question from Modules 3 and 4, each question carries 9 marks | |
| Part C carries question from Modules 5 and 6, each question carries 12 marks | |
| Each part will have 3 questions. The students have to answer two questions from each part. | |

