St. Joseph's College of Engineering and Technology, Palai

AUTONOMOUS

Choondacherry P.O.,Palai,
Kottayam - 686579 Kerala, India

SYLLABUS

Research and Publication Ethics

CODE	COURSE NAME	L	T	P	CREDIT	Year
SJ220TRS001	RESEARCH AND PUBLICATION ETHICS	1	0	1	2	2025

Preamble:

This course aims at understanding the philosophy of science and ethics, research integrity and publication ethics. This also introduces the understanding of indexing and citation databases and uses of plagiarism tools

Course Outcomes

After the completion of the course the student will be able to

CO 1	To understand the basic philosophy and ethics
CO 2	To understand the basic conduct of scientific research
CO 3	To understand the ethics of publishing research output
CO 4	To understand open access publishing schemes
CO 5	To understand publication misconduct and to apply databases and research metrics

Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Total Marks: 40

Continuous assessment will be done through tutorials, assignments, quizzes, and group discussions. Weightage will be given for active participation

End Semester Examination Pattern:

Total Marks: 60

The end semester examination, conducted by the College, will comprise two sections: Part A and Part B.

Part A will include 6 short answer questions, with one question from each module, each carrying 4 marks**.** Students are required to answer all questions in this section.

Part B will consist of 8 questions**,** designed to assess the comprehensive understanding and analytical ability of the students. These questions may involve theoretical concepts, practical knowledge or quantitative analysis, with at least one question from each module**.** Students must answer any six questions from this section. Each question carries 6 marks**.**

SYLLABUS

Module No.	Syllabus Description	Contact Hours
	THEORY	
1	**PHILOSOPHY AND ETHICS** Introduction to Philosophy: Definition, Nature & Scope, Concept, Branches Ethics: Definition, Moral Philosophy, Nature of Moral Judgements and Reactions	4 hours
2	**SCIENTIFIC CONDUCT** Ethics with respect to Science and Research Intellectual Honesty & Research Integrity Scientific Misconducts: Falsification, Fabrication & Plagiarism(FFP) Redundant Publications: Duplicate & Overlapping Publication, Salami Slicing Selective Reporting & Misrepresentation of Data	4 hours
3	**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	
4	**OPEN ACCESS PUBLISHING** Open Access publications and Initiatives SHERPA/ RoMEO online resource to check publisher copyright and self-achieving policies Software tool to identify predatory publications developed by SPPU Journal Finder/ Journal Suggestion tools viz. JANE, ELSEVIER, SPINGER, Journal suggester etc.	4 hours
5	**PUBLICATION MISCONDUCT** A. Group Discussions (2 hours) 1. Subject specific ethical issues, FFP, authorship	4 hours

	2. Conflicts of interests		
	3. Complaints and appeals: examples and fraud from India and abroad		
	B. Software Tools (2 hours) Use of plagiarism software like Turnitin, Urkund and open-source software tools		

6	**DATABASES AND RESEARCH METRICS**
	
	A. Databases (4 hours)
	
	    1. Indexing databases
	
	    2. Citation databases: Web of Science, Scopus etc.
	
	B. Research Metrics (3 hours)
	
	    1. Impact factor of journal as per journal citation report, SNIP, SJR, IPP, cite score
	
	    2. Metrics: h-index, g-index, i-10 index, Altmetrics
		7 hours	

References
1. Bird, A. (2006). Philosophy of Science, Routledge.
2. MacIntyre, Alasdair (1967). A Short History of Ethics, London
3. Chaddah, P. (2018). Ethics in Competitive Research: Do not get scopped; do not get plagiarized, ISBN: 978-9387480865
4. National Academy of Science, National academy of Engineering and Institute of Medicine (2009) On Being a Scientist: A guide to Responsible Conduct in Research, National Academies Press.
5. Resnik, D. B. (2011). What is ethics in research and why is it important. National Institute of Environmental Health Sciences
6. Bcall, J. (2012). Predatory Publishers are corrupting open access. Nature, 489 (7415). 179. https://doi.org/10.1038/489179a
7. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), http://www.insaindia.res.in/pdf/Ethics_Book.pdf
8. Nicholas H. Steneck. Introduction to the Responsible Conduct of Research. Office of Research Integrity. (2007). Available at: https://ori.hhs.gov/sites/default/files/rcrintro.pdf
9. Paul Oliver (2003)The Student's Guide to Research Ethics, Open University Press
10. Adil E. Shamoo; David B. Resnik (2003) Responsible Conduct of Research, Oxford University Press
11. Ethics in Science Education, Research and Governance Edited by Kambadur Muralidhar, Amit Ghosh Ashok Kumar Singhvi. Indian National Science Academy, 2019. ISBN : 978-81-939482-1-7.
12. Anderson B.H., Dursaton, and Poole M. (1997) Thesis and assignment writing, Wiley Eastern
13. Bijorn Gustavii (2012) How to write and illustrate scientific papers? Cambridge University Press.
14. Bordens K.S. and Abbott, B.b. (2008) Research Design and Methods, Mc Graw Hill
15. Graziano, A., M., and Raulin, M.,L. (2007) Research Methods – A Process of Inquiry, Sixth Edition, Pearson.