INDIRA GANDHI UNIVERSITY, MEERPUR, REWARI

Research Ethics

Session: 2024-25			
Part-A - Introduction			
Name of the Programme	Common to all PG Programmes		
Semester	Fourth		
Name of the Course	Research Ethics		
Course Code	24L6.5-EEC-RPE-400		
CourseType	Research Ethics		
Level of the course			
Pre-requisite for the course (ifany)			
CourseLearningOutcomes (CLO) After completing this course, the learner will be able to:	CLO-1:To understand the philosophy of science and ethics, CLO-2: To understand the research integrity and publication ethics. CLO-3:To identify research misconduct and predatory publications. CLO-4: To understand indexing and citation databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.)		
Credits	Theory	Practical	Total
Teaching Hours per week	2	0	2
Internal Assessment Marks	15	0	15
End Term Exam Marks	35	0	35
Max. Marks	50	0	50
Examination Time	3 hours		

Part B - Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist of eight questions (1 mark each) covering entire syllabus and the examinee will be required to attempt any seven questions out of eight questions. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry seven marks each.

Unit	Topics	Contact Hours
I	**PHILOSOPHY AND ETHICS** 1. Introduction to Philosophy: definition, nature and scope, concept, branches 2. Ethics: definition, moral philosophy, nature of moral judgment and reactions	7
II	**SCIENTIFIC CONDUCT** 1. Ethics with respect to science and research 2. Intellectual honesty and research integrity 3. Scientific misconducts: Falsification, Fabrication and Plagiarism (FPP) 4. Redundant publications: duplicate and over lapping publications, salami slicing 5. Selective reporting and misrepresentation of data	8
III	**PUBLICATIUON ETHICS** 1. Publication ethics: definition, introduction and importance 2. Best practices / standard setting initiatives and guidelines: COPE, WAME, etc. 3. Conflicts of interest 4. Publication misconduct: Definition, concept, problems that lead to unethical behavior and vice versa, types 5. Violation and publication ethics, authorship and contributor ship 6. Identification of publication misconduct, complaints and appeals 7. Predatory publishers and journals	7
IV	**A. Database:** 1. Indexing databases 2. Citation databases: Web of Sciences, Scopus, etc. **B. Research Metrics:** 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	8
	Total Contact Hours	30

Suggested Evaluation Methods

Internal Assessment: 15		**End Term Examination: 35**	
➢ **Theory**	**15**	➢ **Theory**	35
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	5		

Part C-Learning Resources

Suggested Readings

1. Nicolas H.Steneck. Introduction to the Responsible Conduct of Research. Office of Research Integrity, 2007. Available at: http://ori.hhs.gov/sites/default/files/rcrintro.pdf
2. The student's Guide to Research Ethics by Paul Oliver Open University Press, 2003.
3. Responsible Conduct of Research by Adil E. Shamoo; David B. Resnik Oxford University Press, 2003.
4. 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. http:www.insaindia.res.in/pdf/Ethics_Book.pdf
5. Anderson B.H., Dursaton, and Poole M.: Thesis and assignment writing, Wiley Eastern 1997.
6. BijornGustavii: How to write and illustrate scientific papers? Cambridge University Press.
7. Bordens K.S. and Abbott, B.b.: Research Design and Methods, Mc Graw Hill, 2008.
8. Graziano, A. M., andRaulin, M. L.: Research Methods – A process of Inquiry, Sixth Edition, Pearson, 2007.
9. Bird, A. (2006). Philosophy of Science. Routledge.
10. MacIntyre, Alasdair (1967) A Short History of Ethics. London.
11. P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN: 978-9387480865.
12. 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.
13. Resnik, 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/research/resources/bioethics/whatis/index.cfm
14. Beall, J. (2012). Predatory publishers are corrupting open access. Nature, 489(7415), 179-179, https://doi.org/10.1038/489179a