MPhil/Ph.D. Course Work

Duration: One Semester (Six months)

Total Credit requirement: 14 credits

SEMESTER 1						
Course Code	**Nomenclature of Course**	**Theory marks (end semester examination)**	**Internal Assessment marks**	**Maximum marks**	**Hours/ Week**	**Credits**
20PH11C1 (Compulsory for all MPhil/ Ph.D. Course work)	Research Methodology	80	20	100	4	4
20RPEMP/ PH11C1 (Compulsory for all MPhil/Ph.D. Course work)	**Research and Publication Ethics**	**40**	**10**	**50**	**2**	**2**
20 PH11C3		80	20	100	4	4
20 PH11C4		80	20	100	4	4
Total marks/Credits				**350**		**14**

Note: i. The compulsory course on 'Research and Publication Ethics' shall be offered by Ch. Ranbir Singh Institute of Social and Economic Change for all UTDs/Centres/Institutes passed vide Resolution No. 27 of the 271st meeting of EC held on 29.7.2020.

ii. Coding for nomenclature of courses shall be in the following sequence:

Academic Year of introduction-Program Code-1st year/2nd year-Semester-Course Number

For Example the nomenclature of 20PHYPH11C1

20 (2020-21)-**PHYPH** (Ph.D. in Physics)-**1** (First year)-**1** (First semester)-**C1** (Course Number 1)

Becomes **20PHYPH11C1**

Name of the Program	MPhil/ Ph.D. Course work	**Program Code**	MP/PH
Name of the Course	Research and Publication Ethics	**Course Code**	20_MP11C2 20_PH11C2
Hours/Week	2	**Credits**	2
Max. Marks.	50	**Time**	3 Hours
End Exam	40 marks	**Internal Assessment**	10 marks

Note: The examiner has to set a total of eight questions comprising two questions from each unit. A candidate has to attempt one question from each unit. All questions carry equal marks.

Course Objectives:

1. To study the philosophy of ethics
2. To study the scientific conduct of research
3. To study the publication ethics
4. To know about various journal citation databases
5. To know the importance of quality publications

Course Outcomes:

By completion of course the student is able to

1. Ethics in conduct of scientific research
2. Know the scientific misconducts
3. How to avoid plagiarism and what are the penalties of plagiarism?
4. Know the quality of research publications
5. Write research and review articles.

Unit - I

PHILOSOPHY AND ETHICS

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

SCIENTIFIC CONDUCT

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 - II

PUBLICATION ETHICS

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 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 - III

DATABASES AND RESEARCH METRICS

(A) Databases

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

(B) Research Metrics

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

Unit - IV

Practice

OPEN ACCESS PUBLISHING

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 Suggested, etc.

PUBLICATION MISCONDUCT

(A) Group Discussions

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 Tumitin, Urkund and other open source software tools

References:

1. Bird, A. (2006). Philosophy of Science, Routledge
2. P. Chaddah (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarised.
3. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019).
4. Beall, J (2012), Predatory publishers are corrupting open access. Nature, 489(7415), 179.
5. 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 Academic press.

Each Department to place their Program/Course Code after the Session Code.