COURSE CURRICULUM

Ph.D. Applied Psychology

(w.e.f. 2023-2024)



DEPARTMENT OF APPLIED PSYCHOLOGY

SCHOOL OF BEHAVIOURAL SCIENCES CENTRAL UNIVERSITY OF TAMIL NADU THIRUVARUR-610 005

JULY - 2023

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1. Overview

Central University of Tamil Nadu (CUTN) is an institution of higher education established by an Act of Parliament in 2009. The University aims at the forming of an enlightened society founded on a relentless pursuit of excellence through innovation in teaching-learning process, interdisciplinary studies and research. With a host of diversified integrated postgraduate, postgraduate and doctoral programmes, the University has been keen to stay abreast of the ever expanding academic frontiers. Within a brief period CUTN has established itself as a frontrunner in the pursuit of excellence.

1.1 School of Behavioural Sciences

The School of Behavioural Sciences aims to be in the forefront of teaching, research, and extension by addressing the existing challenges of our society, be they social, economic, political, health-related or environmental in nature. This School presently comprises the department of Applied Psychology and offers Ph.D. Applied Psychology and M.Sc. Applied Psychology with three specializations: (i) Clinical Psychology, (ii) Counselling Psychology, and (iii) Organisational Psychology.

1.2 Department of Applied Psychology

The Department of Applied Psychology, Central University of Tamil Nadu was established in 2017 and started M.Sc. Applied Psychology in the academic year 2017-18 to cater the increased need for knowledge generation and application in the field of Behavioural Sciences in general and Psychology in particular. The Department aims to provide students with a comprehensive knowledge in the scientific discipline of Psychology, opportunities for learning in the laboratory as well as from the field, and advancement in the understanding of self and others. The Department emphasizes excellence in teaching and research through active involvement of faculty and students in the generation and dissemination of knowledge.

The field of psychology is all-inclusive; virtually any aspect of human behaviour and development can be viewed from a psychological perspective. Psychologists work in different settings, including universities, colleges, research institutes, hospitals, government agencies, counselling centres, schools, business, defence, NGO's etc. and take up different roles in various fields ranging from teaching to research and counselling to training.

In the changing global scenario, application of psychological principles to solve human problems has acquired new dimensions with the changing nature of the challenges that the world faces today. In this context, the department currently offers a regular two years fulltime programme in Applied Psychology (M.Sc. Applied Psychology) with three specialisations: (i) Clinical Psychology, (ii) Counselling Psychology, and (iii) Organisational Psychology. In addition to the post-graduate programme, the department also offers Ph.D. in Applied Psychology.

A. Vision

To lead in teaching and scientific research in the field of Psychology

B. Mission

M1	To impart scientific knowledge in all domains of psychology
M2	To inculcate professional and ethical psychological practices
МЗ	To equip students with skills required to conduct scientific research
M4	To adopt contemporary advances in the field and promote Inter, Multi and Trans disciplinary approach in teaching and research

C. Program Educational Objective (PEO)

After the of successful completion of the Ph.D. program, the student will be able to:

PEO1	Lead inter/multi- disciplinary team for research and development
PEO2	Carry out ethical and innovative high quality scientific research
PE03	Refine and innovate efficient interventions for provided treatment for various
	psychological disorders / Provide Recommendations on the improvising the
	analysed area of Research
PEO4	Initiate and undertake research that translates into effective community service
PEO5	To groom future academicians with astute knowledge of teaching and research

D. Graduate Attributes of Ph.D. Applied Psychology Programme

- 1. **Disciplinary Knowledge:** Content and pedagogical knowledge synchronised with the curriculum frameworks and policies
- 2. Communication Skills: Possess clarity in conveying the ideas
- Critical Thinking: Capacity to apply analytical thought in the teaching and learning process
- 4. **Problem Solving:** Participate in the educational problem solving and applying the knowledge in the day-to-day professional endeavours.
- 5. **Cooperation:** Appreciate collaboration and cooperation among stakeholders of education.
- 6. **ICT Skills:** Selecting and integrating appropriate ICT skills for professional development.
- 7. **Ethics:** Doing what is right to society
- 8. **Self-Directed Learning:** Developing autonomy and self-regulation in teaching-learning and professional development.
- 9. **Reasoning:** Ability to interpret and draw the conclusion from qualitative/quantitative data with open-mindedness
- 10. Creativity: Ability to produce new ideas
- 11. Societal and Environmental Concern: Performing an act or solving a problem with respect to societal and environmental concern
- 12. Lifelong Learning: Understands the need for learning and practices it throughout life.

E. PEO to Mission Statement Mapping

	PEO1	PEO2	PE03	PEO4	PE05
M1	3	3	3	3	3
M2	3	3	3	3	3
M3	3	3	3	3	3
M4	3	3	2	3	3

F. Program Outcomes (PO)

On the successful completion of the program, the student will be able to:

P01	Work in inter/multi/trans disciplinary team for research and development
P02	Carry out ethical and scientific research
P03	Provide professional mental health services to the society at large pertaining to
	their Research area
P04	As an independent researcher carry out impactful, novel research studies
P05	Carry Out Post-Doctoral Research Work in key areas and be able to teach future
	generation students

G. PO to PEO Mapping

	P01	P02	P03	P04	P05
PEO1	3	3	3	3	3
PEO2	3	3	3	3	2
PEO3	3	3	3	3	3
PEO4	3	3	2	3	3
PEO5	3	3	2	3	3

2. Regulations

2.1 Name of the programme	Ph.D. Applied Psychology
2.2 Duration of the programme	3 to 6 years
2.3 Total intake	Depending on the vacancies available in the
	Department. May vary from time to time.

2.4. Eligibility Criteria:

A candidate shall be eligible for admission to the Ph.D. programme, if he/she possesses:

2.4.1

A two year/four semester Master's degree after a three-year Bachelor's programme or a one year/two semester Master's degree after a four-year / eight semester Bachelor's programme or five-year/ten semester Integrated Master's degree programme or M. Phil. degree with at least 55% marks in aggregate or CGPA of 5.5 in a 10-point scale in the subject concerned or in an allied subject as prescribed in the UGC regulations released from time to time in the qualifying examination or its equivalent grade or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority,

established or incorporated under a law in its home country, or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions for the subject concerned under all the Schools of the University - Social Sciences & Humanities and Behavioural Sciences. A four-year bachelor degree with a minimum of 75% marks in aggregate or equivalent grade are also eligible if qualified in the National Level Test.

- 2.4.2. A relaxation of 5% of marks, i.e. from 55% to 50%, or CGPA of 5.5 to 5.0 on a 10-point scale or an equivalent relaxation of grade, may be allowed for candidates who belong to SC/ST/OBC (non-creamy layer)/ PWD (Bench Mark Disability) / Third gender and other categories of candidates as per the decision of the UGC from time to time, or for those who have obtained their Master's degree prior to 19th September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever the grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based on the qualifying marks without including the grace mark procedures.
- 2.4.3. Candidates who have passed an examination outside the Indian University system and those who may not have obtained a Master's degree may be considered for admission to the programme subject to the condition that each shall be examined on the basis of merit by the Admissions Committee and by the recommendations of the Equivalence Committee. Foreign Nationals/ NRIs sponsored by the Govt. of India or their respective Government on any exchange programme and who satisfy the eligibility conditions and producing Equivalence Certificate obtained from Association of India Universities (AIU) (https://www.aiu.ac.in) as per the regulations shall apply for Full-Time category in the respective specialization. The medium of education should be in English and the non-English medium candidates have to produce the English language proficiency certificate obtained from IELTS / TOFEL with good scoring.
- 2.4.4 The candidates who have qualified the UGC/CSIR-JRF/ NET/ SLET/ ICMR-JRF/ DBT-JRF, GATE, INSPIRE, ICAR, DOE, ICSSR & DST Fellowship, any Government Fellowship, National or International or Teacher Fellowship-holders or have passed M.Phil. programme with course work as per the UGC Regulations -Minimum Standards and Procedure for the award of M.Phil./Ph.D.Degree, 2016 (and amendment from time to time), shall be exempted from Ph.D. Entrance test.

2.5 Medium of Instruction	English
2.6 Attendance	As per the University rules

3. Programme Structure

Course Work

Course Code	Course Title	Course Type*	L	Т	Р	Credits	Hours
APY3011	Quantitative Research Methods	Core	2	1	1	4	5
APY3012	Qualitative Research Methods	Core	2	1	1	4	5
APY3013	Course related to the Area / Topic of study	Core	2	1	1	4	5
APY3014	Research and Publication Ethics	Core	1	0	1	2	3

L - Lecture | T - Tutorial | P - Practical

4. Course Work Syllabus in OBE Format

APY3011- Quantitative Research Methods

a. Course Outcomes (CO)

On the successful completion of the program, the student will be able to:

	Course Outcome	Level
CO 1	Define quantitative research and comprehend the distinguishing characteristics of quantitative research	Understand
CO 2	Identify concepts and procedures relating to descriptive research, causal-comparative research, correlational research, experimental research, and case study research	Analyze
CO 3	Examine and select the appropriate method of data collection in relation to the context	Apply
CO 4	Identify statistical techniques appropriate for analyzing data from different research designs	Apply
CO 5	Demonstrate efficiency in writing scientific research report according to the APA guidelines	Skill

b. Syllabus

Units	Content	Hrs.
I	Introduction to Quantitative research: Meaning of research, Objectives of research, Types of research, Introduction to quantitative research, Characteristics and purpose of quantitative research, Introduction to research process, Ethical issues in the conduct of psychological research, Problems encountered by researchers.	10
II	Research Designs: Meaning of research design, Need for research design, Features of a good design, Important concepts relating to research design, Different research designs-Experimental designs – Between Group design, Mixed Design, Correlational design, Cross-sectional design, Longitudinal design, Ex-post facto design, Field experiment.	15
III	Methods of Data Collection: Basic assumptions of data collection, characteristics of data collection and types of data collection methods- Observation method, Interview method, Case study method, Survey method and Experimental method.	10
IV	Data Analysis in quantitative research Parametric Statistics: Assumptions of Parametric statistics: Correlation and Regression Analysis, t-test, Analysis of variance and Covariance, Post-hoc tests- Multivariate Analysis: Introduction to Factor Analysis, Multiple Regression, Introduction to Structural Equation Modelling. Non-parametric Statistics: Assumptions of Non-parametric statistics: Chi-square test, Mann Whitney U-test, Kruskal Wallis test, sign test, Sign rank test, Median test, Rank order, Friedman two-way ANOVA.	15
V	APA style for report writing (latest edition): Writing research report - Title, Abstract, Introduction, Review of literature, Method, Results, Discussion, References – styles and softwares, and Appendices.	10

Tasks and Assignments:

Test 1; Test 2, Seminar & Assignment/Project.

References:

- 1. Howitt, D., & Cramer, D. (2020). Research Methods in Psychology. Pearson Education, Limited.
- 2. Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, Quantitative, and Mixed Methods Approaches. SAGE Publications.
- 3. Millsap, R. E., & Maydeu-Olivares, A. (2009). The SAGE Handbook of Quantitative Methods in Psychology. In SAGE Publications Ltd eBooks. https://doi.org/10.4135/9780857020994
- 4. Little, T. D. (2013). The Oxford Handbook of Quantitative Methods in Psychology: Vol. 2. In Oxford University Press eBooks. https://doi.org/10.1093/oxfordhb/9780199934898.001.0001
- 5. Cooper, H. M. (2023). APA Handbook of Research Methods in Psychology: Volume 1: Foundations, Planning, Measures, and Psychometrics Volume 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological Volume 3: Data Analysis and Research Publication.
- 6. Howell, D.C. (2007). Statistical methods for Psychology (6th ed.). California: Duxbury Press. Siegal, S. (2002). Non –parametric Statistics for the Behavioural Sciences. New Delhi: Tata McGraw Hill.
- 7. Arthur, A., Elaine, A. N., & Elliot C. J. (2012). Statistics for Psychology (6th ed.). Pearson Education.
- 8. Navarro, D. (2013). Learning statistics with R: A tutorial for psychology students and other beginners: Version 0.5. Adelaide, Australia: University of Adelaide.
- 9. Field, A. (2009). Discovering statistics using SPSS. SAGE Publications.
- 10. Navarro, D. (2015). Learning statistics with R.
- 11. American Psychological Association (2019). Publication Manual of the American Psychological Association. *A Wall Street Journal*.

c. Mapping of Program Outcomes with Course Outcomes

	P01	P02	P03	P04	P05
CO1	3	3	2	3	3
CO2	3	3	2	3	3
CO3	3	3	2	3	3
CO4	3	3	2	3	3
CO5	3	3	2	3	3

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	C02	C03	CO4	C05
Assignment s	2	2	2	2	2
Seminar	2	2	2	2	2
Test - I	2	2	2	2	2
Test - II	2	2	2	2	2
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	C03	CO4	CO5
Essay (Internal Choice): 5 x 12 = 60 Marks	12	12	12	12	12
Total	12	12	12	12	12

g. Rubric for Assignments

S N o.	Criteria	100%	75%	50%	25%	0 %	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific	Ideas are presented but not particularly developed or supported	Content is not sound	N A	CO1, CO2, CO3, CO4, CO5
2	Org. 50%	Includes title, introduction, statement of the main idea with illustration and conclusion	Includes title, introduction, statement of main idea and conclusion	organizational tools are weak or missing	No org.	N A	CO1, CO2, CO3, CO4, CO5

Org. - Organization | NA - Not Attended

h. Rubric for Seminar

S N o.	Criteria	100%	75%	50%	25%	0 %	Relation to COs
1	Knowled ge and Understa nding 50%	Exceptional knowledge of facts, terms, and concepts	Detailed knowledge of facts, terms, and concepts	Considerable knowledge of facts, terms, and concepts	Minimal knowledge of facts, terms, and concepts	N A	CO1, CO2, CO3, CO4, CO5
2	Presenta tion 50%	Well Communicate d with logical sequences, examples, and references	Communic ated with sequences	Just Communi- cate d	No coherent communic atio n	N A	CO1, CO2, CO3, CO4, CO5

NA - Not Attended

i. Model Question Paper

Question paper pattern will be decided as per UGC norms and CUTN Ph.D. Regulations.

APY3012- Qualitative Research Methods

a. Course Outcomes (CO)

On the successful completion of the course, the student will be able to:

	Course Outcome	Level
CO 1	Understand the foundational characteristics of qualitative research	Understand
CO 2	Critically analyse the ontology and epistemology of various paradigms of qualitative research	Analyze
CO 3	Distinguish various approaches and methods of conducting qualitative research	Analyze
CO 4	Employ appropriate methods and analyses in conducting qualitative research	Apply
CO 5	Demonstrate efficiency in writing scientific research report according to the contemporary APA guidelines	Skill

b. Syllabus

Units	Content	Hrs.
I	Paradigms of Research: Ontology, Epistemology and Methodology of Positivism, Post-positivism, Social Constructivism, Critical Paradigm, Transformative and Pragmatic Research.	10
II	Introduction to Qualitative Research: Characteristics – Subjectivity, Reflexivity, Triangulation, Researcher's Self in Qualitative Research and Power.	10
III	Approaches and Methods: Observation; Interview; Survey; Focus Group Discussion; Ethnography; Case Study; Narrative Inquiry; Phenomenology; Grounded Theory .	14
IV	Data Analysis in Qualitative Research: Ethnographic Analysis; Case Study Analysis; Narrative Analysis; Thematic Analysis; Content Analysis; Phenomenological Analysis; Grounded Theory Analysis; Introduction to Softwares for Qualitative Analysis.	16
V	APA Style for Report Writing (latest edition): Writing research report - Title, Abstract, Introduction, Review of literature, Method, Results, Discussion, References – styles and softwares, and Appendices. Plagiarism and related softwares.	10

Tasks and Assignments:

Test 1; Test 2, Seminar & Assignment/Mini Project.

References:

- 1. Creswell, J. W., & Creswell, J. W. (2013). Qualitative inquiry & research design: Choosing among five approaches.
- 2. Howitt, D., & Cramer, D. (2020). Research Methods in Psychology. Pearson Education, Limited.
- 3. Czrniawska, B. (2004). Narratives in Social Science Research. New Delhi: SAGE.
- 4. Denizen, N.K., & Lincoln, Y.S. (2017). Handbook of Qualitative Research Method, SAGE. Gobo, G. (2008). Doing Ethnography. Los Angles: SAGE.
- 5. Miles, M. B., Huberman, A. M., & Saldana, J. (2013). Qualitative data analysis: A methods sourcebook. SAGE, Incorporated.
- 6. Riecoeur, P. (2004). The Conflict of Interpretations. London: Continuum.
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- 8. Smith, J.A. (2008). Qualitative Psychology: A Practical Guide to Research Methods: London: SAGE.
- 9. Srivastava, V.K. (2005). Methodology and Fieldwork. New Delhi: Oxford.
- 10. Tracy, S.J. (2013). Qualitative Research Methods. Black.
- 11. Beins, B. C., & McCarthy, M. A. (2018). Research methods and statistics in psychology. Cambridge University Press.
- 12. Brough, P. (2018). Advanced research methods for applied psychology: Design, analysis and reporting. Routledge.
- 13. Jhangiani, R., Chiang, I. A., Cuttler, C., & Leighton, D. C. (2019). Research methods in psychology.
- 14. Rooney, B. J., & Evans, A. N. (2018). *Methods in psychological research*. SAGE Publications.
- 15. Woo, S. E., Tay, L., & Proctor, R. W. (2020). *Big data in psychological research*. American Psychological Association.
- 16. Willig, C., & Rogers, W. S. (2017). *The SAGE Handbook of Qualitative Research in Psychology*. SAGE Publications Ltd. https://doi.org/10.4135/9781526405555
- 17. Frost, N. (2021). Qualitative research methods in psychology: Combining core approaches 2e. McGraw-Hill Education (UK).
- 18. Hennink, M., Hutter, I., & Bailey, A. (2020). Qualitative research methods. SAGE.
- 19. Howitt, D. (2016). *Introduction to qualitative research methods in psychology*. Pearson UK.

c. Mapping of Program Outcomes with Course Outcomes

	P01	P02	P03	P04	P05
CO1	3	3	2	3	3
CO2	3	3	2	3	3
CO3	3	3	2	3	3
CO4	3	3	2	3	3
CO5	3	3	2	3	3

d. Evaluation Scheme

CO1	CO2	CU3	COA	COE	Total
COT	UU2	603	CO4	000	Total

Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	C02	C03	CO4	CO5
Assignment s	2	2	2	2	2
Seminar	2	2	2	2	2
Test - I	2	2	2	2	2
Test - II	2	2	2	2	2
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	C03	CO4	CO5
Essay (Internal Choice): 5 x 12 = 60 Marks	12	12	12	12	12
Total	12	12	12	12	12

g. Rubric for Assignments

S N o.	Criteria	100%	75%	50%	25%	0 %	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific	Ideas are presented but not particularly developed or supported	Content is not sound	N A	CO1, CO2, CO3, CO4, CO5
2	Org. 50%	Includes title, introduction, statement of the main idea with illustration and conclusion	Includes title, introduction, statement of main idea and conclusion	organizational tools are weak or missing	No org.	N A	CO1, CO2, CO3, CO4, CO5

Org. - Organization | NA - Not Attended

h. Rubric for Seminar

S N o.	Criteria	100%	75%	50%	25%	0 %	Relation to COs
1	Knowled ge and Understa nding 50%	Exceptional knowledge of facts, terms, and concepts	Detailed knowledge of facts, terms, and concepts	vledge knowledge of facts, terms, and and concepts		N A	CO1, CO2, CO3, CO4, CO5
2	Presenta tion 50%	Well Communicate d with logical sequences, examples, and references	Communic ated with sequences	Just Communi- cate d	No coherent communic atio n	N A	CO1, CO2, CO3, CO4, CO5

NA - Not Attended

i. Model Question Paper

Question paper pattern will be decided as per UGC norms and CUTN Ph.D. Regulations.

APY3013 - COURSE RELATED TO THE AREA/ TOPIC OF RESEARCH

a. Course Outcomes (CO)

On the successful completion of the course, the student will be able to:

	Course Outcome	Level
CO 1	Critically analyse the need and significance of choosing the	
001	research area and arrive at the research problem	Analyse
CO 2	Extrapolate theories, models, concepts, methods of enquiry and	
CO 2	processes in the research area	Skill
	Conceptualize the framework for the proposed research study and	
CO 3	integrate with the contemporary need in study area which	Skill
	strengthen the utility of the research study.	
	Demonstrate the significant advancements and contemporary	
CO 4	requirements in the study area arriving at the research gap to	Skill
	finalize the research problem.	
CO 5	Carry out independent research specific to the research area	
60.5		Skill

b. Syllabus

Units	Content	Hrs.
	Unit I- Theoretical Background of the Area/Topic of research.	12
I	Philosophical background of the Area /Topic of Study-Theories-	
	Models—Concepts- Methods- approaches to study the Area/Topic.	
II	Unit II- Empirical Research in the Area/Topic of research	12

Units	Content	Hrs.				
	Initial research in the Area/Topic- Key research in the Area/Topic-Major outcome of the research-major criticisms about the research in the Area/Topic-Ethical considerations in the area/topic of research.					
	Unit III- Recent Advances in the Area/Topic of research					
III	Recent theoretical Developments-Recent Empirical research- Implications of the recent advances in the chosen Area/Topic of research.					
IV	Unit IV- Writing Literature Review Meaning- Importance -Pre-Requisites -Major Styles/Models of writing literature Review-Review for Qualitative Research-Review for Quantitative Research.	12				
V	Unit V- Scientific Writing Meaning and Importance-Important Styles of Writing-Scientific writing for: Thesis; Journal Articles; Books; popular Media; Blogs.	12				

#The Course Content given above is a general structure to be followed for the third paper. The content under each Unit will be finalised by the Research Supervisor and the Scholar based on the inputs from the Research Advisory Committee and Department Research Committee.

Tasks and Assignments:

Assignments, Seminar and Tests

Will be decided by the Concerned Research Supervisor and the Research Scholar.

References:

Will be included by the Researcher and the supervisor pertaining to their research area.

c. Mapping of Program Outcomes with Course Outcomes

	P01	P02	P03	P04	P05
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3

d. Evaluation Scheme

	CO1	CO2	C03	CO4	C05	Total
Internal	8	8	80	80	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	C02	C03	CO4	C05
Assignment s	2	2	2	2	2
Seminar	2	2	2	2	2
Test - I	2	2	2	2	2

Test - II	2	2	2	2	2
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	C02	C03	CO4	CO5
Essay (Internal Choice): 5 x 12 = 60 Marks	12	12	12	12	12
Total	12	12	12	12	12

g. Rubric for Assignments

S N o.	Criteria	100%	75%	50%	25%	0 %	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific	Ideas are presented but not particularly developed or supported	Content is not sound	N A	CO1, CO2, CO3, CO4, CO5
2	Org. 50%	Includes title, introduction, statement of the main idea with illustration and conclusion	Includes title, introduction, statement of main idea and conclusion	organizational tools are weak or missing	No org.	N A	CO1, CO2, CO3, CO4, CO5

Org. - Organization | NA - Not Attended

h. Rubric for Seminar

S N o.	Criteria	100%	75%	50%	25%	0 %	Relation to COs
1	Knowled ge and Understa nding 50%	Exceptional knowledge of facts, terms, and concepts	Detailed knowledge of facts, terms, and concepts	Considerable knowledge of facts, terms, and concepts	Minimal knowledge of facts, terms, and concepts	N A	CO1, CO2, CO3, CO4, CO5
2	Presenta tion 50%	Well Communicate d with logical sequences, examples, and references	Communic ated with sequences	Just Communi- cate d	No coherent communic atio n	N A	CO1, CO2, CO3, CO4, CO5

NA - Not Attended

i. Model Question Paper

Question paper pattern will be decided as per UGC norms and CUTN Ph.D. Regulations.

APY3014 Research and Publication Ethics

a. Course Outcomes (CO)

On the successful completion of the course, the student will be able to:

	Course Outcome	Level
CO 1	Discuss the ethics in the conduct of scientific research	Understand
CO 2	Utilize indexing and citation databases, open access publications, research metrics	Apply
CO 3	Identify research misconduct and predatory publication	Analyze
CO 4	Infer the ethical framework and principles	Analyze
CO 5	Explore plagiarism tools for a valid and ethical research report	Skill
CO 6	Develop a valid and ethical research report	Create

b. Syllabus

Units	Content	Hrs.
I	THEORY: Philosophy and Ethics 1. Introduction to Philosophy: definition, nature and scope, concept, branches 2. Ethics: definition, moral philosophy, nature of moral judgments and reactions	3
II	Scientific Conduct 1. Ethics with respect to science and research 2. Intellectual honesty and research integrity 3. Scientific misconducts: Falsification, Fabrication, and Plagiarism 4. Redundant Publication: duplicate and overlapping publications, salami slicing 5. Selective reporting and misinterpretation of data	5
III	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 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	7

IV	PRACTICE Open Access Publishing 1. Open access publications and initiatives 2. SHERP/ RoMEO online resource to check publisher copyright and self-archiving policies 3. A software tool to identify predatory publications developed by SPPU 4. Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer and Journal Suggester, etc.	4
V	Publication Misconducts 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 tool	4
VI	Databases and Research Metrics A. Databases (4 hrs) 1. Indexing databases 2. Citation databases: Web of Science, Scopus, etc. B. Software Tools (3 hrs) 1. Impact Factor of a journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score 2. Metrics: h-index, g-index, i10 index, altmetrics 3. National Academies Press	7

Tasks and Assignments:

Test 1; Test 2, Seminar & Assignment/Mini Project.

REFERENCES:

- 1. Bird, A. (2006). Philosophy of science. Routledge.
- 2. MacIntyre, Alasdair (1967) A Short History of Ethics. London.
- 3. P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN: 978-9387480865
- 4. 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.
- 5. Resnik, D. B. (2011). What is ethics in research and 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
- 6. Beall J. (2012). Predatory publishers are corrupting open access. Nature, 489(7415), 179 179. https://doi.org/10.1038/489179a
- 7. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019),ISBN: 978-81-939482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf

c. Mapping of Program Outcomes with Course Outcomes

	P01	P02	P03	P04	P05
CO1	3	3	2	3	3
CO2	3	3	2	3	3

C03	3	3	2	3	3
CO4	3	3	2	3	3
CO5	3	3	2	3	3
C06	3	3	2	3	3

d. Evaluation Scheme

	CO1	C02	C03	CO4	C05	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	CO2	CO3	CO4	C05	C06
Assignments	1	1	1	1	1	1
Seminar	2	1	2	2	1	2
Test - I	2	2	2	2	2	2
Test - II	2	2	2	2	2	2
Total	7	6	7	7	6	7

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	C02	C03	CO4	C05	C06				
Essay (Internal Choice): 6 x 10 = 60 Marks	10	10	10	10	10	10				
Total	10	10	10	10	10	10				

g. Rubric for Assignments

SNo	Criteria	100%	75%	50%	25%	0	Relatio
						%	n to
							COs
1	Content	Ideas are	Ideas are	Ideas are	Conten	NA	CO1,
	50%	detailed, well	detailed,	presented but	t is not		CO2,
		developed,	Developed	not particularly	sound		CO3,
		supported	and	developed or			CO4,
		with specific	supported	supported			CO5,
		evidence &	with				C06
		facts and	evidence				
		examples	and facts				
			mostly				
			specific				

2	Org.	Includes	Includes	organizationa	No org.	NA	CO1,
	50%	title,	title,	l tools			CO2,
		introductio	introduction	are weak or			CO3,
		n,	, statement	missing			CO4,
		statement	of main idea				CO5,
		of the	and				C06
		main idea	conclusion				
		with					
		illustration					
		and					
		conclusion					

Org. - Organization | NA - Not Attended

h. Rubric for Seminar

SN	Criteria	100%	75%	50%	25%	0	Relatio
0.						%	n to
							COs
1	Knowledge	Exceptional	Detailed	Considera	Minimal	N	CO1,
	and	knowledge	knowledge	ble	knowledge	Α	CO2,
	Understandi	of facts,	of facts,	knowledge	of facts,		CO3,
	ng	terms, and	terms, and	of facts,	terms, and		CO4,
	50%	concepts	concepts	terms, and	concepts		CO5,
				concepts			C06
2	Presentatio	Well	Communicat	Just	No	N	CO1,
	n 50%	Communica	ed with	Communi-	coherent	Α	CO2,
		te d with	sequences	cate d	communica		CO3,
		logical			tio n		CO4,
		sequences,					CO5,
		examples,					C06
		and					
		references					

NA - Not Attended

i. Model Question Paper

Question paper pattern will be decided as per UGC norms and CUTN Ph.D. Regulations.