Sushant University

Criteria 3.4.1

Copy of the syllabus of the research methodology course work to indicate if research ethics is included.

Appendix-II

Ph.D. Coursework

Syllabus

2023-24

Sushant University

Credit wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Credits	Total Contact Hours
1	RC4500	Research Methodology	4	(Through SWAYAM)
2	LIT4000	Literature Review	2	30
3	RC4600	ICT in Research	2	30
4	RC4001	Latest Trend in Respective Discipline of Research	2	30
5	RPE2021	Research Publications and Ethics	2	30
		Total	12	120

Marks wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Theory	Practical	Internal Assessment	Max. Marks	Duration
1	RC4500	Research Methodology	60	-	40	100	3 hrs
2	LIT4000	Literature Review	30	30	40	100	1/2 hr
3	RC4600	ICT in Research	-	60	40	100	$1^{1/2}$ hrs
4	RC4001	Latest Trend in Respective Discipline of Research	60	-	40	100	3 hrs
5	RPE2021	Research Publications and Ethics	60	-	40	100	3 hrs

Research Methodology Syllabus - Fall 2023 Batch

Course 1:

Research Methodology
By Prof. Edamana Prasad, Prof. Prathap Haridoss | IIT Madras

Syllabus to be covered from week 1 to week 5

Week 1 : A group discussion on what is research; Overview of research;
Week 2 : Literature survey , Experimental skills;
Week 3 : Data analysis, Modelling skills;
Week 4 : Technical writing; Technical Presentations; Creativity in Research
Week 5 : Creativity in Research; Group discussion on Ethics in Research

Course 2:

MCO-03: Research Methodology and Statistical Analysis
By Prof (Dr) Subodh Kesharwani | Indira Gandhi National Open University

Week-3
Sampling
Random Sampling
Non-Random Sampling
Types of sampling Errors & Control

Week-4
Measurement of Scaling Techniques (MST)- (Measurement)
Comparative Scaling Techniques
Non-Comparative Scaling Techniques

Week-5
Processing of data
Diagrammatic Presentation of data
Graphical Presentation

Week-6
Statistical Derivatives
Measure of Central Tendency (MCT)

Week-7
Variance
Measure of Variance
Measure of Skewness

Week-8
Correlation
Scatter Plots
Correlation Coefficient
Regression Analysis
Types of Regression Analysis
(Simple & Multiple)
Correlation Vs. Regression & Standard Error

LITERATURE REVIEW

Course Code: LIT4000   **Credit Units: 02**

Course Objectives:
This aim of this course is to provide you with the experience of doing a literature review and receiving critical feedback on it prior to writing a research proposal for your doctoral thesis or analytic paper. A literature review is an assessment of a body of research that bears on a question. It involves framing a question, devising an investigative strategy for answering that question, gathering data, drawing conclusions from the data, and communicating to a reader what you have found and how you have found it. This course also serves to familiarize you with some of the forms, purposes, and contexts in which academic writing takes place.

Learning Outcomes: At the end of this course, students should be able to

1. Identify terms and processes associated with scholarly writing
2. Identify gaps in academic research through literature review
3. Recognize different referencing style in their research field and be able to use them also
4. Conduct research and publication ethically
5. Critically evaluate various academic publications

Module I: Introduction to Literature Review/Scholarly Writing:
Need for Literature Review, Theoretical and Conceptual framework, Sources of Review of Literature, Chronological reporting of review of literature both Indian & Abroad, Gap in Research on topic of the study. Web Search and using Advanced Search Techniques for research through internet.

Module II: Referencing style:
Referencing and various formats for reference writing of books and research papers, APA Reference Style Guide, 6th edition (2010), Reference style in engineering and other fields

Module III: Ethical considerations in research:
Ethical considerations for conducting research and publication in psychosocial, behavioural & natural sciences, Familiarity with ethics research committee

Module IV: Practical training in Literature review:
Selecting one of the major key concepts and variables from the topic of the research and writing review literature with different sources and its assessment by the supervisor. Resubmission of practical review following supervisor's feedback

Module V: Practical training of research paper writing:
Familiarity with Professional Journals – National & International, Selection of topic for writing research paper, practical procedure for writing research paper based on modules of paper I & paper II.

Examination Scheme:

Components	I Continuous assessment (Weekly Assignment, Class tests)	II Research Paper writing*	III Seminar Presentation and/or Viva on Research Paper
Weightage	40%	30%	30%

*To be done under the supervisor

📖 *Text Book:*

1. Monippally, M. M., & Pawar, B. S. (2010). *Academic Writing*. New Delhi: Sage Publicaton.

📂 *References:*

1. Huff, A. (1999). *Writing for Scholarly Publication*. Sage Publication.
2. Machi, L.A. (2009). *The Literature Review: Six Steps to Success*. Corwin Press. 3.
Hart, C. (2002). *Doing a Literature Review*. Sage Publication
4. Cooper, H. (2010). *Research Synthesis and Meta-Analysis: A Step-By-Step Approach*. Sage Publicaton.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

ICT IN RESEARCH

(Information Communication Technology, ICT, Completely Lab Based)

Course Code: RC4600   **Credit Units: 02**

Unit I: Applications of MS word, MS-Excel and presentations by MS Power Point, Advanced Features. Graphics and Drawing: Basics of Adobe Photoshop and Image Compression (GIF, JPEG, PNG formats).

Unit II: Internet and Intranet: Advance search techniques (case studies: Google & Yahoo). Educational and Research Resourceson Net: Encyclopedia (case study: Wikipedia). On line Tutorials and Lectures, Educational Applets. Virtual Labs, Electronic Journals, E-books, digital libraries, Searching research information using J-gate and Scopus.

Unit III: Global searching of scholarly databases through web based searches. Recent development of SaaS services. Two SaaS additions in the public arena providing search for scholarly publications-Google Scholar and Google Books. Online survey tools such as Survey Monkey, Lime Survey and Zoomerang for online surveys and online polling. Software copyright. Hacking and viruses.

Unit IV: Document sharing- Google docs. Automated system for journal management and publishing such as Open Journal Systems. SaaS services and publishing on the internet. Publishing on the WWW using blogs. Web 2.0 technologies and their impact on research methodologies and execution. Changes in the way that WWW operates and the wide array of choices for scholars in undertaking research, writing reviews and collaboration. Cloud Computing. Plagiarism and its prevention. File management.

Examination Scheme

Components	I Continuous Assessment	II Lab Examination
Weightage	40%	60%

References:
1. Handbook of Communication and Social Interaction Skills By John O. Greene, Brant Raney Burleson
2. Information Communication Technology by Tim Shortis
3. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=digital_learnings

Latest Trend in Respective Discipline of Research

Course Code: RC4001   **Credit Units: 02**

Syllabus is not available but it is mentioned in a previous office note that the faculty members who will be teaching this course will give 10 recent topics in their field of research.

Research and Publication Ethics (RPE)

Course Code: RPE2021   **Credit Units: 02**

About the Course:

Overview: This course has 6 modules mainly focusing on basics of philosophy of science and ethics, research integrity, 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 introduced in the course.

THEORY

RPE 01: PHILOSOPHY AND ETHICS (3 HRS)

1. Introduction to philosophy: definition, nature and scoope, concept, branches

2. Ethics: definitino, moral philosophy, nature of moral judgements and reations.

RPE 02: SCIENTIFIC CONDUCT (5 HRS)

1. Ethics with respcet to science and research

2. Intellectual honest and research integrity

3. Scientific misconducts: falsification, fabrication, and plagiarism.

4. Redundant publications: duplicate and overlapping publications, salami slicing

5. Selective reporting and misrepresentation of data.

RPE 03: PUBLICATION ETHICS (7 HRS)

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 verse, types

5. Violation of publication ethics, authorship and contributor ship

6. Identification of publication misconduct, complaints and appeals

7. Predatory publishers and journals

PRACTICE

RPE 04: OPEN ACCESS PUBLISHING (4 HRS)

1. Open access publications and initiatives

2. SHERPA/RoMEO online resourse to check publisher copyright and 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 Suggester, etc.

RPE 05: PUBLICATION MISCONDUCT (4 HRS)

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 tools.

RPE 06: DATABASES AND RESEARCH METRICS (7 HRS)

A Databases (4 hrs)

1. Indexing detabeses

2. Citation detabases: Web of Science, Scopus, etc.

B. Research Metrics (3 hrs)

Impact Factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score.

Metrics: h-index, g index, i10 index, altmetrics

SUSHANT UNIVERSITY, GURGAON

Ph.D. Course Work

2022-23

||Sushant
||University

Credit wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Credits	Total Contact Hours
1	RC4500	Research Methodology	4	Online (Swayam)
2	LIT4000	Literature Review	2	30
3	RC4600	ICT in Research	2	30
4	RC4001	Latest Trend in Respective Discipline of Research	2	30
5	RPE2021	Research Publications and Ethics	2	30
		Total	12	

Marks wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Theory	Practical	Internal Assessment	Max. Marks	Duration
1	RC4500	Research Methodology	60	-	40	100	3 hrs
2	LIT4000	Literature Review	30	30	40	100	1/2 hr
3	RC4600	ICT in Research	-	60	40	100	$1^{1/2}$ hrs
4	RC4001	Latest Trend in Respective Discipline of Research	60	-	40	100	3 hrs
5	RPE2021	Research Publications and Ethics	60	-	40	100	3 hrs

Research Methodology: Course layout (2022)

Weeks	Video No.	Video Title	E-Content
Week-1	1	Introduction to Business Research	B-1 /U-1
	2	Research Thought & FAQ	
	3	Research Methods	
Week-2	4	Research plan and Research Problem	B-1 /U-2
	5	Formulation of Objectives	
	6	Hypothesis	
	7	Research Design	
	8	Collection of Data	B-1 /U-3
Week-3	9	Sampling	B-1 /U-4
	10	Random Sampling	
	11	Non-Random Sampling	
	12	Types of sampling Errors & Control	
Week-4	13	Measurement of Scaling Techniques (MST)- (Measurement)	B-1 /U-5
	14	Comparative Scaling Techniques	
	15	Non-Comparative Scaling Techniques	
Week-5	16	Processing of data	B-2 /U-6
	17	Diagrammatic Presentation of data	B-2 /U-7
	18	Graphical Presentation	
Week-6	19	Statistical Derivatives	B-2 /U-8
	20	Measure of Central Tendency (MCT)	
Week-7	21	Variance	B-2 /U-9
	22	Measure of Variance	
	23	Measure of Skewness	
Week-8	24	Correlation	B-2 /U-10
	25	Scatter Plots	
	26	Correlation Coefficient	
	27	Regression Analysis	
	28	Types of Regression Analysis (Simple & Multiple)	
	29	Correlation Vs. Regression & Standard Error	
Week-9	30	Time series Analysis	B-3 /U-11
	31	Components of Time Series-	
	32	Methods of Measurement of Trends	
	33	Index No.	B-3 /U-12
	34	Construction of Index Numbers and Methods	
Week-10	35	Probability	B-4/U-13
	36	Fundamental Concepts & approaches to probability	
	37	Probability Rules	
	38	Probability under Statistical Independence	
	39	Probability under Statistical Dependence	
	40	Bayes' Theorem	
Week-11	41	Probability Distribution	B-4/U-14
	42	Types of Probability Distribution- discrete (Part-I)	
	43	Types of Probability Distribution- continuous (Part-II)	

Week-12	44	Estimation	B-4/U-15
	45	Confidence and intervals	
	46	Hypothesis Testing	
	47	Theory of Testing Hypothesis	
Week-13	48	Type-1 & Type-2 Error	B-4/U-15
	49	One Tailed & Two Tailed Test	
	50	Z-Test	
Week-14	51	Small Samples Vs. Large Samples	B-4/U-16
	52	Parametric & Nonparametric test	
	53	T-Test	
	54	Paired t-test	
	55	Unpaired t-test	
	56	Chi square Test-1	B-4/U-17
Week-15	57	Interpretation of Statistical data	B-5/U-18
	58	Research Report Writing	B-5/U-19
Week-16	59	Terminologies Used in Research & Statistics Part-1 A to K	All Blocks
	60	Terminologies Used in Statistics & Research Part-II 1 L to Z	All Blocks

LITERATURE REVIEW

Course Code: LIT4000   **Credit Units: 02**

Course Objectives:
This aim of this course is to provide you with the experience of doing a literature review and receiving critical feedback on it prior to writing a research proposal for your doctoral thesis or analytic paper. A literature review is an assessment of a body of research that bears on a question. It involves framing a question, devising an investigative strategy for answering that question, gathering data, drawing conclusions from the data, and communicating to a reader what you have found and how you have found it. This course also serves to familiarize you with some of the forms, purposes, and contexts in which academic writing takes place.

Learning Outcomes: At the end of this course, students should be able to

1. Identify terms and processes associated with scholarly writing
2. Identify gaps in academic research through literature review
3. Recognize different referencing style in their research field and be able to use them also
4. Conduct research and publication ethically
5. Critically evaluate various academic publications

Module I: Introduction to Literature Review/Scholarly Writing:
Need for Literature Review, Theoretical and Conceptual framework, Sources of Review of Literature, Chronological reporting of review of literature both Indian & Abroad, Gap in Research on topic of the study. Web Search and using Advanced Search Techniques for research through internet.

Module II: Referencing style:
Referencing and various formats for reference writing of books and research papers, APA Reference Style Guide, 6th edition (2010), Reference style in engineering and other fields

Module III: Ethical considerations in research:
Ethical considerations for conducting research and publication in psychosocial, behavioural & natural sciences, Familiarity with ethics research committee

Module IV: Practical training in Literature review:
Selecting one of the major key concepts and variables from the topic of the research and writing review literature with different sources and its assessment by the supervisor. Resubmission of practical review following supervisor's feedback

Module V: Practical training of research paper writing:
Familiarity with Professional Journals – National & International, Selection of topic for writing research paper, practical procedure for writing research paper based on modules of paper I & paper II.

Examination Scheme:

Components	I Continuous assessment (Weekly Assignment, Class tests)	II Research Paper writing*	III Seminar Presentation and/or Viva on Research Paper
Weightage	40%	30%	30%

*To be done under the supervisor

📖 *Text Book:*

1. Monippally, M. M., & Pawar, B. S. (2010). *Academic Writing.* New Delhi: Sage Publicaton.

📁 *References:*

1. Huff, A. (1999). *Writing for Scholarly Publication.* Sage Publication.
2. Machi, L.A. (2009). *The Literature Review: Six Steps to Success.* Corwin Press. 3. Hart, C. (2002). *Doing a Literature Review.* Sage Publication
4. Cooper, H. (2010). *Research Synthesis and Meta-Analysis: A Step-By-Step Approach.* Sage Publicaton.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

ICT IN RESEARCH

(Information Communication Technology, ICT, Completely Lab Based)

Course Code: RC4600   **Credit Units: 02**

Unit I: Applications of MS word, MS-Excel and presentations by MS Power Point, Advanced Features. Graphics and Drawing: Basics of Adobe Photoshop and Image Compression (GIF, JPEG, PNG formats).

Unit II: Internet and Intranet: Advance search techniques (case studies: Google & Yahoo). Educational and Research Resourceson Net: Encyclopedia (case study: Wikipedia). On line Tutorials and Lectures, Educational Applets. Virtual Labs, Electronic Journals, E-books, digital libraries, Searching research information using J-gate and Scopus.

Unit III: Global searching of scholarly databases through web based searches. Recent development of SaaS services. Two SaaS additions in the public arena providing search for scholarly publications-Google Scholar and Google Books. Online survey tools such as Survey Monkey, Lime Survey and Zoomerang for online surveys and online polling. Software copyright. Hacking and viruses.

Unit IV: Document sharing- Google docs. Automated system for journal management and publishing such as Open Journal Systems. SaaS services and publishing on the internet. Publishing on the WWW using blogs. Web 2.0 technologies and their impact on research methodologies and execution. Changes in the way that WWW operates and the wide array of choices for scholars in undertaking research, writing reviews and collaboration. Cloud Computing. Plagiarism and its prevention. File management.

Examination Scheme

Components	I Continuous Assessment	II Lab Examination
Weightage	40%	60%

📁 *References:*
1. Handbook of Communication and Social Interaction Skills By John O. Greene, Brant Raney Burleson
2. Information Communication Technology by Tim Shortis
3. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=digital_learnings

Latest Trend in Respective Discipline of Research

Course Code: RC4001   **Credit Units: 02**

Syllabus is not available but it is mentioned in a previous office note that the faculty members who will be teaching this course will give 10 recent topics in their field of research.

Research and Publication Ethics (RPE)

Course Code: RPE2021   **Credit Units: 02**

About the Course:

Overview: This course has 6 modules mainly focusing on basics of philosophy of science and ethics, research integrity, 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 introduced in the course.

THEORY

RPE 01: PHILOSOPHY AND ETHICS (3 HRS)

1. Introduction to philosophy: definition, nature and scoope, concept, branches

2. Ethics: definitino, moral philosophy, nature of moral judgements and reations.

RPE 02: SCIENTIFIC CONDUCT (5 HRS)

1. Ethics with respcet to science and research

2. Intellectual honest and research integrity

3. Scientific misconducts: falsification, fabrication, and plagiarism.

4. Redundant publications: duplicate and overlapping publications, salami slicing

5. Selective reporting and misrepresentation of data.

RPE 03: PUBLICATION ETHICS (7 HRS)

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 verse, types

5. Violation of publication ethics, authorship and contributor ship

6. Identification of publication misconduct, complaints and appeals

7. Predatory publishers and journals

PRACTICE

RPE 04: OPEN ACCESS PUBLISHING (4 HRS)

1. Open access publications and initiatives

2. SHERPA/RoMEO online resourse to check publisher copyright and 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 Suggester, etc.

RPE 05: PUBLICATION MISCONDUCT (4 HRS)

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 tools.

RPE 06: DATABASES AND RESEARCH METRICS (7 HRS)

A Databases (4 hrs)

1. Indexing detabeses

2. Citation detabases: Web of Science, Scopus, etc.

B. Research Metrics (3 hrs)

Impact Factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score.

Metrics: h-index, g index, i10 index, altmetrics

SUSHANT UNIVERSITY, GURGAON

Ph.D. Course Work

2021-22

||Sushant
||University

Erstwhile Ansal University Gurugram

Credit wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Credits	Total Contact Hours
1	RC4500	Research Methodology	4	60
2	LIT4000	Literature Review	2	30
3	RC4600	ICT in Research	2	30
4	RC4001	Latest Trend in Respective Discipline of Research	2	30
5	RPE2021	Research Publications and Ethics	2	30
		Total	12	180

Marks wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Theory	Practical	Internal Assessment	Max. Marks	Duration
1	RC4500	Research Methodology	60	-	40	100	3 hrs
2	LIT4000	Literature Review	30	30	40	100	1/2 hr
3	RC4600	ICT in Research	-	60	40	100	$1^{1/2}$ hrs
4	RC4001	Latest Trend in Respective Discipline of Research	60	-	40	100	3 hrs
5	RPE2021	Research Publications and Ethics	60	-	40	100	3 hrs

RESEARCH METHODOLOGY

Course Code: RC4500   **Credit Units: 04**

Course Objectives: The course is designed for Ph.D. students beginning their research work. The objective of the course is to provide students the procedure to conceptualize their Ph.D. work in terms of research questions and design, methodology, data collection, quantitative & qualitative analysis. The focus of the course is applied and decisional. The students will be familiarized to theory formation and hypothesis testing: literature survey and review: research design process: errors in research. Further more it would help in understanding the significance of assessment and measurement, descriptive and causal inference, relative importance of different research designs, data collection, analyzing quantitative and qualitative data and finally Ph.D thesis.

Learning Outcomes: At the end of this course, students should be able to

1. Identify and specify research problem
2. Plan, organize, design and conduct research to help solving identified problem
3. Identify and administer appropriate statistical tools and techniques with the help of statistical package
4. Prepare and present research report

Module I: Introduction to Research   **(5 hrs)**
Nature & Concept of research, Philosophy of research, Deductive and inductive reasoning Essentialism, Experimentation, Existentialism. Research ethics, problems encountered by researchers.

Module II: Research Process and Research Design   **(10 hrs)**
Approaches to research and formulating a research problem: Selection, steps in formulation of a problem, formulation of objectives, Definition of variables-Concepts, indicators and variables, Types of variables, Research Design, Types of Research Designs: Exploratory, Descriptive, Experimental and Simulation.

Module III: Data Collection and Sampling   **(10 hrs)**
Types of data, Collection, Organization, Presentation and analysis of data, Observation   Methods and Questionnaire Method, Questionnaire Design: Steps in constructing a questionnaire, types of questions, Attitude measurement and Scaling techniques, Projective techniques, Multidimensional scaling and psychological testing, Sampling techniques and field work procedure, Types of sampling and non-sampling errors.

Module IV: Statistical Analysis   **(25 hrs)**
Overview: Parametric and non-parametric tests, Significance of difference between Means (t, F, CR), Univariate statistical analysis: hypothesis testing, Type I and Type II errors; Bivariate statistical analysis: appropriate test of difference, the chi square test for goodness of fit; Bivariate Statistical Analysis: Correlation: test of significance of coefficient of correlation, Regression

analysis: model building, OLS method, Assumptions of OLS, Properties of OLS. Significance of regression coefficient, Multivariate Analysis: classification of multivariate technique, analysis, Multicollinearity, Heteroscedasticity, Factor analysis, Cluster analysis, Multiple ANOVA, SPSS software and other latest statistical software for analysis of data like E-views and GRETL.

Examination Scheme:

Components	I Continuous Assessment	II Written Examination
Weightage	40%	60%

📖 *Text Book:*

a) Sekaran, U. (2011). *Research Methods for Business: A skill building approach.* New Delhi: Wiley India.

📂 *References:*

1. George,D., Mallery, P. (2008). *SPSS for Windows : Stepb y Step.* Pearson Education 2. Brannen, J. (Ed.) (1992) *Mixing Methods: Qualitative and Quantitative Research Theory and Practice.*
3. Srivastava, T. N., & Rego, S. (2010). *Business Research Methodology.* McGraw Hill. 4. Breakwell, G.M., Hammond, S., and Fife Schaw, C. (1995) *Research Methods in Psychology.* Sage.
5. Moroney, M.J. (1951) *Facts from Figures.* Penguin.
6. Rowntree, D. (1981) *Statistics Without Tears.* Routledge.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

LITERATURE REVIEW

Course Code: LIT4000   **Credit Units: 02**

Course Objectives:
This aim of this course is to provide you with the experience of doing a literature review and receiving critical feedback on it prior to writing a research proposal for your doctoral thesis or analytic paper. A literature review is an assessment of a body of research that bears on a question. It involves framing a question, devising an investigative strategy for answering that question, gathering data, drawing conclusions from the data, and communicating to a reader what you have found and how you have found it. This course also serves to familiarize you with some of the forms, purposes, and contexts in which academic writing takes place.

Learning Outcomes: At the end of this course, students should be able to

1. Identify terms and processes associated with scholarly writing
2. Identify gaps in academic research through literature review
3. Recognize different referencing style in their research field and be able to use them also
4. Conduct research and publication ethically
5. Critically evaluate various academic publications

Module I: Introduction to Literature Review/Scholarly Writing:
Need for Literature Review, Theoretical and Conceptual framework, Sources of Review of Literature, Chronological reporting of review of literature both Indian & Abroad, Gap in Research on topic of the study. Web Search and using Advanced Search Techniques for research through internet.

Module II: Referencing style:
Referencing and various formats for reference writing of books and research papers, APA Reference Style Guide, 6th edition (2010), Reference style in engineering and other fields

Module III: Ethical considerations in research:
Ethical considerations for conducting research and publication in psychosocial, behavioural & natural sciences, Familiarity with ethics research committee

Module IV: Practical training in Literature review:
Selecting one of the major key concepts and variables from the topic of the research and writing review literature with different sources and its assessment by the supervisor. Resubmission of practical review following supervisor's feedback

Module V: Practical training of research paper writing:
Familiarity with Professional Journals – National & International, Selection of topic for writing research paper, practical procedure for writing research paper based on modules of paper I & paper II.

Examination Scheme:

Components	I Continuous assessment (Weekly Assignment, Class tests)	II Research Paper writing*	III Seminar Presentation and/or Viva on Research Paper
Weightage	40%	30%	30%

*To be done under the supervisor

📖 *Text Book:*

1. Monippally, M. M., & Pawar, B. S. (2010). *Academic Writing*. New Delhi: Sage Publicaton.

📂 *References:*

1. Huff, A. (1999). *Writing for Scholarly Publication*. Sage Publication.
2. Machi, L.A. (2009). *The Literature Review: Six Steps to Success*. Corwin Press. 3.
Hart, C. (2002). *Doing a Literature Review*. Sage Publication
4. Cooper, H. (2010). *Research Synthesis and Meta-Analysis: A Step-By-Step Approach*. Sage Publicaton.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

ICT IN RESEARCH

(Information Communication Technology, ICT, Completely Lab Based)

Course Code: RC4600   **Credit Units: 02**

Unit I: Applications of MS word, MS-Excel and presentations by MS Power Point, Advanced Features. Graphics and Drawing: Basics of Adobe Photoshop and Image Compression (GIF, JPEG, PNG formats).

Unit II: Internet and Intranet: Advance search techniques (case studies: Google & Yahoo). Educational and Research Resourceson Net: Encyclopedia (case study: Wikipedia). On line Tutorials and Lectures, Educational Applets. Virtual Labs, Electronic Journals, E-books, digital libraries, Searching research information using J-gate and Scopus.

Unit III: Global searching of scholarly databases through web based searches. Recent development of SaaS services. Two SaaS additions in the public arena providing search for scholarly publications-Google Scholar and Google Books. Online survey tools such as Survey Monkey, Lime Survey and Zoomerang for online surveys and online polling. Software copyright. Hacking and viruses.

Unit IV: Document sharing- Google docs. Automated system for journal management and publishing such as Open Journal Systems. SaaS services and publishing on the internet. Publishing on the WWW using blogs. Web 2.0 technologies and their impact on research methodologies and execution. Changes in the way that WWW operates and the wide array of choices for scholars in undertaking research, writing reviews and collaboration. Cloud Computing. Plagiarism and its prevention. File management.

Examination Scheme

Components	I Continuous Assessment	II Lab Examination
Weightage	40%	60%

📂 *References:*
1. Handbook of Communication and Social Interaction Skills By John O. Greene, Brant Raney Burleson
2. Information Communication Technology by Tim Shortis
3. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=digital_learnings

Latest Trend in Respective Discipline of Research

Course Code: RC4001   **Credit Units: 02**

Syllabus is not available but it is mentioned in a previous office note that the faculty members who will be teaching this course will give 10 recent topics in their field of research.

Research and Publication Ethics (RPE)

Course Code: RPE2021   **Credit Units: 02**

About the Course:

Overview: This course has 6 modules mainly focusing on basics of philosophy of science and ethics, research integrity, 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 introduced in the course.

THEORY

RPE 01: PHILOSOPHY AND ETHICS (3 HRS)

1. Introduction to philosophy: definition, nature and scoope, concept, branches

2. Ethics: definitino, moral philosophy, nature of moral judgements and reations.

RPE 02: SCIENTIFIC CONDUCT (5 HRS)

1. Ethics with respcet to science and research

2. Intellectual honest and research integrity

3. Scientific misconducts: falsification, fabrication, and plagiarism.

4. Redundant publications: duplicate and overlapping publications, salami slicing

5. Selective reporting and misrepresentation of data.

RPE 03: PUBLICATION ETHICS (7 HRS)

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 verse, types

5. Violation of publication ethics, authorship and contributor ship

6. Identification of publication misconduct, complaints and appeals

7. Predatory publishers and journals

PRACTICE

RPE 04: OPEN ACCESS PUBLISHING (4 HRS)

1. Open access publications and initiatives

2. SHERPA/RoMEO online resourse to check publisher copyright and 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

Suggester, etc.

RPE 05: PUBLICATION MISCONDUCT (4 HRS)

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 tools.

RPE 06: DATABASES AND RESEARCH METRICS (7 HRS)

A Databases (4 hrs)

1. Indexing detabeses

2. Citation detabases: Web of Science, Scopus, etc.

B. Research Metrics (3 hrs)

Impact Factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score.

Metrics: h-index, g index, i10 index, altmetrics

SUSHANT UNIVERSITY, GURGAON

Ph.D. Course Work

2020-21

∥Sushant
∥University

Erstwhile Ansal University Gurugram

Credit wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Credits	Total Contact Hours
1	RC4500	Research Methodology	4	60
2	LIT4000	Literature Review	2	30
3	RC4600	ICT in Research	2	30
4	RC4001	Latest Trend in Respective Discipline of Research	2	30
5	RPE2021	Research Publications and Ethics	2	30
		Total	12	180

Marks wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Theory	Practical	Internal Assessment	Max. Marks	Duration
1	RC4500	Research Methodology	60	-	40	100	3 hrs
2	LIT4000	Literature Review	30	30	40	100	1/2 hr
3	RC4600	ICT in Research	-	60	40	100	$1^{1/2}$ hrs
4	RC4001	Latest Trend in Respective Discipline of Research	60	-	40	100	3 hrs
5	RPE2021	Research Publications and Ethics	60	-	40	100	3 hrs

RESEARCH METHODOLOGY

Course Code: RC4500   **Credit Units: 04**

Course Objectives: The course is designed for Ph.D. students beginning their research work. The objective of the course is to provide students the procedure to conceptualize their Ph.D. work in terms of research questions and design, methodology, data collection, quantitative & qualitative analysis. The focus of the course is applied and decisional. The students will be familiarized to theory formation and hypothesis testing: literature survey and review: research design process: errors in research. Further more it would help in understanding the significance of assessment and measurement, descriptive and causal inference, relative importance of different research designs, data collection, analyzing quantitative and qualitative data and finally Ph.D thesis.

Learning Outcomes: At the end of this course, students should be able to

1. Identify and specify research problem
2. Plan, organize, design and conduct research to help solving identified problem
3. Identify and administer appropriate statistical tools and techniques with the help of statistical package
4. Prepare and present research report

Module I: Introduction to Research   **(5 hrs)**
Nature & Concept of research, Philosophy of research, Deductive and inductive reasoning Essentialism, Experimentation, Existentialism. Research ethics, problems encountered by researchers.

Module II: Research Process and Research Design   **(10 hrs)**
Approaches to research and formulating a research problem: Selection, steps in formulation of a problem, formulation of objectives, Definition of variables-Concepts, indicators and variables, Types of variables, Research Design, Types of Research Designs: Exploratory, Descriptive, Experimental and Simulation.

Module III: Data Collection and Sampling   **(10 hrs)**
Types of data, Collection, Organization, Presentation and analysis of data, Observation Methods and Questionnaire Method, Questionnaire Design: Steps in constructing a questionnaire, types of questions, Attitude measurement and Scaling techniques, Projective techniques, Multidimensional scaling and psychological testing, Sampling techniques and field work procedure, Types of sampling and non-sampling errors.

Module IV: Statistical Analysis   **(25 hrs)**
Overview: Parametric and non-parametric tests, Significance of difference between Means (t, F, CR), Univariate statistical analysis: hypothesis testing, Type I and Type II errors; Bivariate statistical analysis: appropriate test of difference, the chi square test for goodness of fit; Bivariate Statistical Analysis: Correlation: test of significance of coefficient of correlation, Regression

analysis: model building, OLS method, Assumptions of OLS, Properties of OLS. Significance of regression coefficient, Multivariate Analysis: classification of multivariate technique, analysis, Multicollinearity, Heteroscedasticity, Factor analysis, Cluster analysis, Multiple ANOVA, SPSS software and other latest statistical software for analysis of data like E-views and GRETL.

Examination Scheme:

Components	I Continuous Assessment	II Written Examination
Weightage	40%	60%

📖 *Text Book:*

a) Sekaran, U. (2011). *Research Methods for Business: A skill building approach.* New Delhi: Wiley India.

📂 *References:*

1. George,D., Mallery, P. (2008). *SPSS for Windows : Stepb y Step.* Pearson Education 2. Brannen, J. (Ed.) (1992) *Mixing Methods: Qualitative and Quantitative Research Theory and Practice.*
3. Srivastava, T. N., & Rego, S. (2010). *Business Research Methodology.* McGraw Hill. 4. Breakwell, G.M., Hammond, S., and Fife Schaw, C. (1995) *Research Methods in Psychology.* Sage.
5. Moroney, M.J. (1951) *Facts from Figures.* Penguin.
6. Rowntree, D. (1981) *Statistics Without Tears.* Routledge.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

LITERATURE REVIEW

Course Code: LIT4000   **Credit Units: 02**

Course Objectives:
This aim of this course is to provide you with the experience of doing a literature review and receiving critical feedback on it prior to writing a research proposal for your doctoral thesis or analytic paper. A literature review is an assessment of a body of research that bears on a question. It involves framing a question, devising an investigative strategy for answering that question, gathering data, drawing conclusions from the data, and communicating to a reader what you have found and how you have found it. This course also serves to familiarize you with some of the forms, purposes, and contexts in which academic writing takes place.

Learning Outcomes: At the end of this course, students should be able to

1. Identify terms and processes associated with scholarly writing
2. Identify gaps in academic research through literature review
3. Recognize different referencing style in their research field and be able to use them also
4. Conduct research and publication ethically
5. Critically evaluate various academic publications

Module I: Introduction to Literature Review/Scholarly Writing:
Need for Literature Review, Theoretical and Conceptual framework, Sources of Review of Literature, Chronological reporting of review of literature both Indian & Abroad, Gap in Research on topic of the study. Web Search and using Advanced Search Techniques for research through internet.

Module II: Referencing style:
Referencing and various formats for reference writing of books and research papers, APA Reference Style Guide, 6th edition (2010), Reference style in engineering and other fields

Module III: Ethical considerations in research:
Ethical considerations for conducting research and publication in psychosocial, behavioural & natural sciences, Familiarity with ethics research committee

Module IV: Practical training in Literature review:
Selecting one of the major key concepts and variables from the topic of the research and writing review literature with different sources and its assessment by the supervisor. Resubmission of practical review following supervisor's feedback

Module V: Practical training of research paper writing:
Familiarity with Professional Journals – National & International, Selection of topic for writing research paper, practical procedure for writing research paper based on modules of paper I & paper II.

Examination Scheme:

Components	I Continuous assessment (Weekly Assignment, Class tests)	II Research Paper writing*	III Seminar Presentation and/or Viva on Research Paper
Weightage	40%	30%	30%

*To be done under the supervisor

📖 ***Text Book:***

1. Monippally, M. M., & Pawar, B. S. (2010). *Academic Writing.* New Delhi: Sage Publicaton.

📁 ***References:***

1. Huff, A. (1999). *Writing for Scholarly Publication.* Sage Publication.
2. Machi, L.A. (2009). *The Literature Review: Six Steps to Success.* Corwin Press. 3. Hart, C. (2002). *Doing a Literature Review.* Sage Publication
4. Cooper, H. (2010). *Research Synthesis and Meta-Analysis: A Step-By-Step Approach.* Sage Publicaton.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

ICT IN RESEARCH

(Information Communication Technology, ICT, Completely Lab Based)

Course Code: RC4600   **Credit Units: 02**

Unit I: Applications of MS word, MS-Excel and presentations by MS Power Point, Advanced Features. Graphics and Drawing: Basics of Adobe Photoshop and Image Compression (GIF, JPEG, PNG formats).

Unit II: Internet and Intranet: Advance search techniques (case studies: Google & Yahoo). Educational and Research Resourceson Net: Encyclopedia (case study: Wikipedia). On line Tutorials and Lectures, Educational Applets. Virtual Labs, Electronic Journals, E-books, digital libraries, Searching research information using J-gate and Scopus.

Unit III: Global searching of scholarly databases through web based searches. Recent development of SaaS services. Two SaaS additions in the public arena providing search for scholarly publications-Google Scholar and Google Books. Online survey tools such as Survey Monkey, Lime Survey and Zoomerang for online surveys and online polling. Software copyright. Hacking and viruses.

Unit IV: Document sharing- Google docs. Automated system for journal management and publishing such as Open Journal Systems. SaaS services and publishing on the internet. Publishing on the WWW using blogs. Web 2.0 technologies and their impact on research methodologies and execution. Changes in the way that WWW operates and the wide array of choices for scholars in undertaking research, writing reviews and collaboration. Cloud Computing. Plagiarism and its prevention. File management.

Examination Scheme

Components	I Continuous Assessment	II Lab Examination
Weightage	40%	60%

📂 *References:*
1. Handbook of Communication and Social Interaction Skills By John O. Greene, Brant Raney Burleson
2. Information Communication Technology by Tim Shortis
3. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=digital_learnings

Latest Trend in Respective Discipline of Research

Course Code: RC4100   **Credit Units: 02**

Syllabus is not available but it is mentioned in a previous office note that the faculty members who will be teaching this course will give 10 recent topics in their field of research.

Research and Publication Ethics (RPE)

Course Code: RPE2021   **Credit Units: 02**

About the Course:

Overview: This course has 6 modules mainly focusing on basics of philosophy of science and ethics, research integrity, 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 introduced in the course.

THEORY

RPE 01: PHILOSOPHY AND ETHICS (3 HRS)

1. Introduction to philosophy: definition, nature and scoope, concept, branches

2. Ethics: definitino, moral philosophy, nature of moral judgements and reations.

RPE 02: SCIENTIFIC CONDUCT (5 HRS)

1. Ethics with respcet to science and research

2. Intellectual honest and research integrity

3. Scientific misconducts: falsification, fabrication, and plagiarism.

4. Redundant publications: duplicate and overlapping publications, salami slicing

5. Selective reporting and misrepresentation of data.

RPE 03: PUBLICATION ETHICS (7 HRS)

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 verse, types

5. Violation of publication ethics, authorship and contributor ship

6. Identification of publication misconduct, complaints and appeals

7. Predatory publishers and journals

PRACTICE

RPE 04: OPEN ACCESS PUBLISHING (4 HRS)

1. Open access publications and initiatives

2. SHERPA/RoMEO online resourse to check publisher copyright and 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 Suggester, etc.

RPE 05: PUBLICATION MISCONDUCT (4 HRS)

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 tools.

RPE 06: DATABASES AND RESEARCH METRICS (7 HRS)

A Databases (4 hrs)

1. Indexing detabeses

2. Citation detabases: Web of Science, Scopus, etc.

B. Research Metrics (3 hrs)

Impact Factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score.

Metrics: h-index, g index, i10 index, altmetrics

ANSAL UNIVERSITY, GURGAON

Ph.D. Course Work

2019-20

Credit wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Credits	Contact Hours	Self Study	Total Hours
1	RC4500	Research Methodology	4	40	-	40
2	LIT4000	Literature Review	4	20	20	40
3	RC4600	ICT in Research	4	20	20	40
4	RC4001	Latest Trend in Respective Discipline of Research	4	20	20	40
		Total	16	100	60	160

Marks wise distribution of Ph.D. Course Work Papers

S. No.	Course Code	Course Title	Theory	Practical	Internal Assessment	Max. Marks	Duration
1	RC4500	Research Methodology	60	-	40	100	3 hrs
2	LIT4000	Literature Review	30	30	40	100	1/2 hr
3	RC4600	ICT in Research	-	60	40	100	$1^{1/2}$ hrs
4	RC4001	Latest Trend in Respective Discipline of Research	60	-	40	100	3 hrs

RESEARCH METHODOLOGY

Course Code: RC4500   **Credit Units: 04**

Course Objectives: The course is designed for Ph.D. students beginning their research work. The objective of the course is to provide students the procedure to conceptualize their Ph.D. work in terms of research questions and design, methodology, data collection, quantitative & qualitative analysis. The focus of the course is applied and decisional. The students will be familiarized to theory formation and hypothesis testing: literature survey and review: research design   process: errors in research. Further more it would help in understanding the significance of assessment and measurement, descriptive and causal inference, relative importance of different research designs, data collection, analyzing quantitative and qualitative data and finally Ph.D thesis.

Learning Outcomes: At the end of this course, students should be able to

1. Identify and specify research problem
2. Plan, organize, design and conduct research to help solving identified problem
3. Identify and administer appropriate statistical tools and techniques with the help of statistical package
4. Prepare and present research report

Module I: Introduction to Research   **(5 hrs)**
Nature & Concept of research, Philosophy of research, Deductive and inductive reasoning Essentialism, Experimentation, Existentialism. Research ethics, problems encountered by researchers.

Module II: Research Process and Research Design   **(10 hrs)**
Approaches to research and formulating a research problem: Selection, steps in formulation of a problem, formulation of objectives, Definition of variables-Concepts, indicators and variables, Types of variables, Research Design, Types of Research Designs: Exploratory, Descriptive, Experimental and Simulation.

Module III: Data Collection and Sampling   **(10 hrs)**
Types of data, Collection, Organization, Presentation and analysis of data, Observation   Methods and Questionnaire Method, Questionnaire Design: Steps in constructing a questionnaire, types of questions, Attitude measurement and Scaling techniques, Projective techniques, Multidimensional scaling and psychological testing, Sampling techniques and field work procedure, Types of sampling and non-sampling errors.

Module IV: Statistical Analysis   **(25 hrs)**
Overview: Parametric and non-parametric tests, Significance of difference between Means (t, F, CR), Univariate statistical analysis: hypothesis testing, Type I and Type II errors; Bivariate statistical analysis: appropriate test of difference, the chi square test for goodness of fit; Bivariate

Statistical Analysis: Correlation: test of significance of coefficient of correlation, Regression analysis: model building, OLS method, Assumptions of OLS, Properties of OLS. Significance of regression coefficient, Multivariate Analysis: classification of multivariate technique, analysis, Multicollinearity, Heteroscedasticity, Factor analysis, Cluster analysis, Multiple ANOVA, SPSS software and other latest statistical software for analysis of data like E-views and GRETL.

Examination Scheme:

Components	I Continuous Assessment	II Written Examination
Weightage	40%	60%

📖 *Text Book:*
   a) Sekaran, U. (2011). *Research Methods for Business: A skill building approach.* New Delhi: Wiley India.

📂 *References:*
   1. George,D., Mallery, P. (2008). *SPSS for Windows : Stepb y Step.* Pearson Education 2. Brannen, J. (Ed.) (1992) *Mixing Methods: Qualitative and Quantitative Research Theory and Practice.*
   3. Srivastava, T. N., & Rego, S. (2010). *Business Research Methodology.* McGraw Hill. 4. Breakwell, G.M., Hammond, S., and Fife Schaw, C. (1995) *Research Methods in Psychology.* Sage.
   5. Moroney, M.J. (1951) *Facts from Figures.* Penguin.
   6. Rowntree, D. (1981) *Statistics Without Tears.* Routledge.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

LITERATURE REVIEW

Course Code: LIT4000   **Credit Units: 04**

Course Objectives:
This aim of this course is to provide you with the experience of doing a literature review and receiving critical feedback on it prior to writing a research proposal for your doctoral thesis or analytic paper. A literature review is an assessment of a body of research that bears on a question. It involves framing a question, devising an investigative strategy for answering that question, gathering data, drawing conclusions from the data, and communicating to a reader what you have found and how you have found it. This course also serves to familiarize you with some of the forms, purposes, and contexts in which academic writing takes place.

Learning Outcomes: At the end of this course, students should be able to

1. Identify terms and processes associated with scholarly writing
2. Identify gaps in academic research through literature review
3. Recognize different referencing style in their research field and be able to use them also
4. Conduct research and publication ethically
5. Critically evaluate various academic publications

Module I: Introduction to Literature Review/Scholarly Writing:
Need for Literature Review, Theoretical and Conceptual framework, Sources of Review of Literature, Chronological reporting of review of literature both Indian & Abroad, Gap in Research on topic of the study. Web Search and using Advanced Search Techniques for research through internet.

Module II: Referencing style:
Referencing and various formats for reference writing of books and research papers, APA Reference Style Guide, 6th edition (2010), Reference style in engineering and other fields

Module III: Ethical considerations in research:
Ethical considerations for conducting research and publication in psychosocial, behavioural & natural sciences, Familiarity with ethics research committee

Module IV: Practical training in Literature review:
Selecting one of the major key concepts and variables from the topic of the research and writing review literature with different sources and its assessment by the supervisor. Resubmission of practical review following supervisor's feedback

Module V: Practical training of research paper writing:
Familiarity with Professional Journals – National & International, Selection of topic for writing research paper, practical procedure for writing research paper based on modules of paper I & paper II.

Examination Scheme:

Components	I Continuous assessment (Weekly Assignment, Class tests)	II Research Paper writing*	III Seminar Presentation and/or Viva on Research Paper
Weightage	40%	30%	30%

*To be done under the supervisor

📖 ***Text Book:***

1. Monippally, M. M., & Pawar, B. S. (2010). *Academic Writing.* New Delhi: Sage Publicaton.

📁 ***References:***

1. Huff, A. (1999). *Writing for Scholarly Publication.* Sage Publication.
2. Machi, L.A. (2009). *The Literature Review: Six Steps to Success.* Corwin Press. 3. Hart, C. (2002). *Doing a Literature Review.* Sage Publication
4. Cooper, H. (2010). *Research Synthesis and Meta-Analysis: A Step-By-Step Approach.* Sage Publicaton.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

ICT IN RESEARCH

(Information Communication Technology, ICT, Completely Lab Based)

Course Code: RC4600   **Credit Units: 04**

Unit I: Applications of MS word, MS-Excel and presentations by MS Power Point, Advanced Features. Graphics and Drawing: Basics of Adobe Photoshop and Image Compression (GIF, JPEG, PNG formats).

Unit II: Internet and Intranet: Advance search techniques (case studies: Google & Yahoo). Educational and Research Resourceson Net: Encyclopedia (case study: Wikipedia). On line Tutorials and Lectures, Educational Applets. Virtual Labs, Electronic Journals, E-books, digital libraries, Searching research information using J-gate and Scopus.

Unit III: Global searching of scholarly databases through web based searches. Recent development of SaaS services. Two.SaaS additions in the public arena providing search for scholarly publications-Google Scholar and Google Books. Online survey tools such as Survey Monkey, Lime Survey and Zoomerang for online surveys and online polling. Software copyright. Hacking and viruses.

Unit IV: Document sharing- Google docs. Automated system for journal management and publishing such as Open Journal Systems. SaaS services and publishing on the internet. Publishing on the WWW using blogs. Web 2.0 technologies and their impact on research methodologies and execution. Changes in the way that WWW operates and the wide array of choices for scholars in undertaking research, writing reviews and collaboration. Cloud Computing. Plagiarism and its prevention. File management.

Examination Scheme

Components	I Continuous Assessment	II Lab Examination
Weightage	40%	60%

References:
1. Handbook of Communication and Social Interaction Skills By John O. Greene, Brant Raney Burleson
2. Information Communication Technology by Tim Shortis
3. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=digital_learnings

Latest Trend in Respective Discipline of Research

Course Code: RC4100   **Credit Units: 04**

Syllabus is not available but it is mentioned in a previous office note that the faculty members who will be teaching this course will give 10 recent topics in their field of research.

ansal University Gurgaon	**Ansal University**
	Course Outline

Course Title: Research Methodology			
Course Code: RC4500			
Semester: Pre-PhD	**Academic Year: 2018-19**	**Core/Elective: Core**	**LTP: 4-0-0** **Credits: 4**
Course Designed by: Dr. Sangeeta Trehan **E-mail:** **sangeetatrehan@ansaluniversity.edu.in**		**Course Instructor: Dr. Sangeeta Trehan** **E-mail:** **sangeetatrehan@ansaluniversity.edu.in**	
Pre-requisites: Nil			

Course Objectives: The course is designed for Ph.D. students beginning their research work. The objective of the course is to provide students the procedure to conceptualize their Ph.D. work in terms of research questions and design, methodology, data collection, quantitative & qualitative analysis. The focus of the course is applied and decisional. The students will be familiarized to theory formation and hypothesis testing: literature survey and review: research design process: errors in research. Furthemore it would help in understanding the significance of assessment and measurement, descriptive and causal inference, relative importance of different research designs, data collection, analyzing quantitative and qualitative data and finally Ph.D thesis.

Course Outcomes: At the end of this course, students should be able to

1. Identify and specify research problem
2. Plan, organize, design and conduct research to help solving identified problem
3. Identify and administer appropriate statistical tools and techniques with the help of statistical package
4. Prepare and present research report

Module I: Introduction to Research (5 hrs)

Nature & Concept of research, Philosophy of research, Deductive and inductive reasoning Essentialism, Experimentation, Existentialism. Research ethics, problems encountered by researchers.

Module II: Research Process and Research Design (10 hrs)

Approaches to research and formulating a research problem: Selection, steps in formulation of a problem, formulation of objectives, Definition of variables-Concepts, indicators and variables,

Types of variables, Research Design, Types of Research Designs: Exploratory, Descriptive, Experimental and Simulation.

Module III: Data Collection and Sampling   (10 hrs)
Types of data, Collection, Organization, Presentation and analysis of data, Observation Methods and Questionnaire Method, Questionnaire Design: Steps in constructing a questionnaire, types of questions, Attitude measurement and Scaling techniques, Projective techniques, Multidimensional scaling and psychological testing, Sampling techniques and field work procedure, Types of sampling and non-sampling errors.

Module IV: Statistical Analysis   (25 hrs)
Overview: Parametric and non-parametric tests, Significance of difference between Means (t, F, CR), Univariate statistical analysis: hypothesis testing, Type I and Type II errors; Bivariate statistical analysis: appropriate test of difference, the chi square test for goodness of fit; Bivariate Statistical Analysis: Correlation: test of significance of coefficient of correlation, Regression analysis: model building, OLS method, Assumptions of OLS, Properties of OLS. Significance of regression coefficient, Multivariate Analysis: classification of multivariate technique, analysis, Multicollinearity, Heteroscedasticity, Factor analysis, Cluster analysis, Multiple ANOVA, SPSS software and other latest statistical software for analysis of data like E-views and GRETL.

Examination Scheme:

Components	I Continuous Assessment	II Written Examination
Weightage	40%	60%

📖 **Text Book:**
  a) Sekaran, U. (2011). *Research Methods for Business: A skill building approach.* New Delhi: Wiley India.

📁 **References:**
  1. George,D., Mallery, P. (2008). *SPSS for Windows : Stepb y Step.* Pearson Education Brannen, J. (Ed.) (1992) *Mixing Methods: Qualitative and Quantitative Research Theory and Practice.*
  2. Srivastava, T. N., & Rego, S. (2010). *Business Research Methodology.* McGraw Hill. Breakwell, G.M., Hammond, S., and Fife Schaw, C. (1995) *Research Methods in Psychology.* Sage.
  3. Moroney, M.J. (1951) *Facts from Figures.* Penguin.
  4. Rowntree, D. (1981) *Statistics Without Tears.* Routledge.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.

	Ansal University
	Course Outline

Course Title: Literature Review			
Course Code: LIT4000			
Semester: Pre-PhD	**Academic Year: 2018-19**	**Core/Elective: Core**	**LTP: 4-0-0** **Credits: 4**
Course Designed by: Dr. Monika Khurana **E-mail:** **monikakhurana@ansaluniversity.edu.in**		**Course Instructor: Dr. Monika Khurana** **E-mail:** **monikakhurana@ansaluniversity.edu.in**	
Pre-requisites: Nil			

Course Objectives:

This aim of this course is to provide you with the experience of doing a literature review and receiving critical feedback on it prior to writing a research proposal for your doctoral thesis or analytic paper. A literature review is an assessment of a body of research that bears on a question. It involves framing a question, devising an investigative strategy for answering that question, gathering data, drawing conclusions from the data, and communicating to a reader what you have found and how you have found it. This course also serves to familiarize you with some of the forms, purposes, and contexts in which academic writing takes place.

Course Outcomes: At the end of this course, students should be able to

1. Identify terms and processes associated with scholarly writing
2. Identify gaps in academic research through literature review
3. Recognize different referencing style in their research field and be able to use them also
4. Conduct research and publication ethically
5. Critically evaluate various academic publications

Module I: Introduction to Literature Review/Scholarly Writing:

Need for Literature Review, Theoretical and Conceptual framework, Sources of Review of Literature, Chronological reporting of review of literature both Indian & Abroad, Gap in Research on topic of the study. Web Search and using Advanced Search Techniques for research through internet.

Module II: Referencing style:
Referencing and various formats for reference writing of books and research papers, APA Reference Style Guide, 6th edition (2010), Reference style in engineering and other fields

Module III: Ethical considerations in research:
Ethical considerations for conducting research and publication in psychosocial, behavioural & natural sciences, Familiarity with ethics research committee

Module IV: Practical training in Literature review:
Selecting one of the major key concepts and variables from the topic of the research and writing review literature with different sources and its assessment by the supervisor. Resubmission of practical review following supervisor's feedback

Module V: Practical training of research paper writing:
Familiarity with Professional Journals – National & International, Selection of topic for writing research paper, practical procedure for writing research paper based on modules of paper I & paper II.

Examination Scheme:

Components	I Continuous assessment (Weekly Assignment, Class tests)	II Research Paper writing*	III Seminar Presentation and/or Viva on Research Paper
Weightage	40%	30%	30%

*To be done under the supervisor

📖 ***Text Book:***
1. Monippally, M. M., & Pawar, B. S. (2010). *Academic Writing.* New Delhi: Sage Publicaton.

📂 ***References:***
1. Huff, A. (1999). *Writing for Scholarly Publication.* Sage Publication.
2. Machi, L.A. (2009). *The Literature Review: Six Steps to Success.* Corwin Press. 3. Hart, C. (2002). *Doing a Literature Review.* Sage Publication
4. Cooper, H. (2010). *Research Synthesis and Meta-Analysis: A Step-By-Step Approach.* Sage Publicaton.

Relevant websites:

S. No	Web address	Salient Features
1	www.emeraldinsight.com	A leading independent publisher of global research with impact in business, society, public policy and education
2	http://ebscohost.com	EBSCO provides you with an integrated service that combines reference databases, subscription management, online journals, books, linking services and A-to-Z solutions.