

# Nursing Research and Statistics

**Placement:** Fourth Year

**Time:** Theory – 45 Hours

**Clinical Training**

**Practical – 45 Hours**

**Course Description:** The course is designed to enable students to develop and understanding of basic concepts of research, research process and statistics. It is further, structured to conduct/participate in need based research studies in various settings and utilize the research findings to provide quality nursing care. The hours for Practical will be utilized for conducting Individual / group research project.

Unit	Time (Hrs)	Learning Objectives	Contents and Teaching Learning Activity
I	4	<ul style="list-style-type: none"> <li>* Describe the concept of research, terms, need and areas of research in Nursing</li> <li>* Explain the steps of research process</li> </ul>	<p><b>Research and Research Process</b></p> <ul style="list-style-type: none"> <li>* Introduction and need for Nursing research</li> <li>* Definition of Research &amp; nursing research</li> <li>* Steps of scientific method</li> <li>* Characteristics of good research</li> <li>* Steps of Research process-overview</li> </ul> <p><i>Teaching Learning Activity</i></p> <ul style="list-style-type: none"> <li>* Lecture discussion</li> <li>* Narrate steps of research process followed from examples of published studies</li> </ul>
II	3	<ul style="list-style-type: none"> <li>* Identify and state the research problem and objectives</li> </ul>	<p><b>Research problem / question</b></p> <ul style="list-style-type: none"> <li>* Identification of problem area</li> <li>* Problem statement</li> <li>* Criteria of a good research problem</li> <li>* Writing objectives</li> </ul> <p><i>Teaching Learning Activity</i></p> <ul style="list-style-type: none"> <li>* Lecture discussion</li> <li>* Exercise on writing statement of problem and objectives</li> </ul>
III	3	<ul style="list-style-type: none"> <li>* Review the related literature</li> </ul>	<p><b>Review of Literature</b></p> <ul style="list-style-type: none"> <li>* Location</li> <li>* Sources</li> <li>* On line search; CINHAL, COCHRANE etc</li> <li>* Purposes</li> <li>* Method of review</li> </ul> <p><i>Teaching Learning Activity</i></p> <ul style="list-style-type: none"> <li>* Lecture discussion</li> <li>* Exercise on reviewing one research report/article for a selected research problem</li> <li>* Prepare annotated bibliography</li> </ul>
IV	4	<ul style="list-style-type: none"> <li>* Describe the research approaches</li> </ul>	<p><b>Research approaches and designs</b></p> <ul style="list-style-type: none"> <li>* Historical, survey and experimental</li> </ul>

		and designs	<p>* Qualitative and quantitative designs</p> <p><b>Teaching Learning Activity</b></p> <p>* Lecture discussion</p> <p>* Explain types of research approaches used from examples of published and unpublished research studies with rationale</p>
V	8	<p>* Explain the sampling process</p> <p>* Describe the methods of data collection</p>	<p><b>Sampling and Data Collection</b></p> <p>* Definition of population, sample, sampling criteria, factors influencing sampling process, types of sampling techniques</p> <p>* Data – why, what, from, whom, when, where to collect</p> <p>* Data collection methods and instruments:</p> <ul style="list-style-type: none"> <li>○ Methods of data collection</li> <li>○ Questioning, interviewing</li> <li>○ Observations, record analysis and measurements</li> <li>○ Types of instruments</li> <li>○ Validity and reliability of the instrument</li> <li>○ Pilot study</li> <li>○ Data collection procedure</li> </ul> <p><b>Teaching Learning Activity</b></p> <p>* Lecture discussion</p> <p>* Reading assignment on examples of data collection tools</p> <p>* Preparation of sample data collection tools</p> <p>* Conduct group research project</p>
VI	4	<p>* Analyze, interpret and summarize the research data</p>	<p><b>Analysis of data:</b></p> <p>* Compilation, Tabulation, classification, summarization, presentation, interpretation of data</p> <p><b>Teaching Learning Activity</b></p> <p>* Lecture discussion</p> <p>* Preparation of sample tables</p>
VII	15	<p>* Explain the use of statistics, scales of measurement and graphical presentation of data</p> <p>* Describe the measures of central tendency and variability and methods of correlation.</p>	<p><b>Introduction to statistics</b></p> <p>* Definition, use of statistics, scales of measurement</p> <p>* Frequency distribution and graphical presentation of India</p> <p>* Mean, Median, Mode, Standard deviation</p> <p>* Normal probability and tests of significance.</p> <p>* Co-efficient of correlation</p> <p>* Statistical packages and its application</p> <p><b>Teaching Learning Activity</b></p> <p>* Lecture discussion</p> <p>* Practice on graphical presentation</p> <p>* Practice on computation of measures of central tendency, variability and correlation</p>
VIII	4	<p>* Communicate and utilize the research</p>	<p><b>Communication and Utilization of Research</b></p> <p>* Communication of Research findings</p>

	findings	<ul style="list-style-type: none"> <li>○ Verbal report</li> <li>○ Writing research report</li> <li>○ Writing scientific article/paper</li> <li>- Critical review of published research</li> <li>- Utilization of research findings</li> </ul> <p><b>Teaching Learning Activity</b></p> <ul style="list-style-type: none"> <li>* Lecture discussion</li> <li>* Read / presentations of a sample published / unpublished research report</li> <li>* Writing group research project</li> </ul>
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- **Nursing Research and Statistics**

Nursing Research & Statistics – Nursing Research should be of 65 marks and Statistics of 35 marks.

**Table 9 – B: Distribution of Type of Questions and Marks for Nursing Research (65 marks)**

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	1	10	10
Short Essay (SE)	8	5	40
Short Answer (SA)	6	3	15
Total Marks			65

**Table 9(C): Distribution of Type of Questions and Marks for Statistics (35 marks)**

Type of Questions	No. of Questions	Marks	Sub-total
Long Essay (LE)	-	-	
Short Essay (SE)	4	5	20
Short Answer (SA)	5	3	15
Total Marks			35

No Practical examination.