

INTRODUCTION TO NURSING RESEARCH AND STATISTICS

Placement : Second Year

Time Allotted: Theory - 45 Hrs.
Practical -120 Hrs.

COURSE DESCRIPTION

The course is designed to assist the students to develop an understanding of basic concepts of research and statistics, use the findings of nursing research in nursing practice, apply the knowledge in conducting project(s) and solve problems related to nursing using scientific method.

OBJECTIVES

At the end of the course, the students will :

1. Define the terms and concepts of nursing research
2. Identify needs and scope of nursing research
3. Identify and define a research problem
4. Locate and list sources of literature for a specific study
5. Describe different research approaches, methods of data collection and sampling techniques with a special reference to survey method.
6. Develop tool for data collection
7. Enumerate steps of data analysis and present data summary in tabular form
8. Use descriptive and co-relational statistics in data analysis
9. Conduct a group research project

COURSE CONTENTS

A. INTRODUCTION TO RESEARCH METHODOLOGY

UNIT I

Steps of scientific methods .
Definition of research
Need for nursing research
Characteristics of good research. Research Process.

UNIT II

Statement of research problem.
Statement of purpose and objectives.
Definition of research terms.
Review of literature.

UNIT III

Research approaches: - historical, survey and experimental

UNIT IV

Sampling Techniques and methods of data collection.

Sampling

Instruments-questionnaire. Interview

Observation schedule, records, measurements

Reliability and validity of instruments.

UNIT V

Analysis of Data: Tabulation

Classification and summarization

Presentation

Interpretation of data.

UNIT VI

Communication of research findings.

Writing Report:

Organizing materials for writing

Format of the report

Use of computers.

B. INTRODUCTION TO STATISTICS

UNIT VII

Descriptive Statistics.

Frequency Distribution - Types of measure - frequencies, interval, graphic methods of describing frequency.

Measures of Central Tendency - Mode, Median and Mean.

Measures of variability: Range, Standard deviation

Introduction to normal probability.

UNIT VIII

Correlation

Computation by rank difference methods.

Uses of correlation co-efficient.

UNIT IX

Biostatistics: Crude rates and standardized rates, ratio and estimation of the trends.

UNIT X

Introduction to computers in nursing
Introduction to computers and disk -operating system,
Introduction to word processing
Introduction to data base
Windows applications, word, excel, power point, multimedia.
Use of statistical packages.
Introduction to Internet & use of electronic mail
Computer aided teaching & testing.

PRACTICUM

Students will conduct research project in small groups in selected areas of nursing and submit a report (Group studies may include studying of existing health practices, improved practices of nursing (procedures), health records, patient records and survey of nursing literature).