



Course Description

HSC3057 | Introduction to Research Methods in Health Care | 3.00 credits

This course will provide an overview of research methods used in healthcare. Students will learn the use of effective inquiry through research strategies that address healthcare issues with logical and observational rigor. Students will learn the rudiments relative to the evaluation of research literature, research design, and the application of research methods to the clinical setting.

Course Competencies:

Competency 1: The student will be able to examine the fundamental characteristics and issues that make science different from other types of knowledge by:

1. Explaining the difference between ordinary human inquiry and science
2. Discussing and defining the concepts of theory, philosophy, and belief
3. Comparing and contrasting inductive and deductive theory
4. Comparing and contrasting quantitative and qualitative data
5. Comparing and contrasting pure and applied research

Competency 2: The student will be able to explore ethical and political considerations in designing and executing research by:

1. Explaining the importance of and difference between anonymity and confidentiality
2. Listing the roles and responsibilities of institutional boards
3. Reviewing professional codes of conduct and explaining the significance of each code
4. Discuss the concepts of voluntary participation and potential harm to participants used in research design
5. Comparing and contrasting objectivity and political ideology as considerations in research design

Competency 3: The student will be able to understand the considerations for posing proper scientific questions and the structuring of inquiry by:

1. Comparing and contrasting the three purposes of research – exploration, description, and explanation
2. Listing and defining units of analysis used in research
3. Comparing and contrasting cross-sectional and longitudinal studies
4. Outlining the eight steps in designing a research project

Competency 4: The student will understand the interrelated steps of conceptualization, operationalization, and measurement in designing a research project by:

1. Comparing and contrasting precision and accuracy as criteria of measurement quality
2. Comparing and contrasting reliability and validity as criteria of measurement quality
3. Defining conceptions, theoretical concepts, and reality as constructs for research
4. Defining descriptive and explanatory studies

Competency 5: The student will be able to learn the logic and skills of constructing measures using multiple indicators by:

1. Comparing and contrasting indexes versus scales
2. Listing and explaining the steps in constructing indexes
3. Listing and explaining the steps involved in constructing scales
4. Differentiating various types of scales

Competency 6: The student will be able to understand and apply concepts of sampling to research projects by:

1. Reviewing and giving a short account of the history of sampling
2. Comparing and contrasting non-probability and probability sampling

3. Reviewing populations and sampling frames and their applicability to specific research designs
4. Listing and defining four types of sampling designs

Competency 7: The student will be able to explore the experimental method as a mode of observation by:

1. Writing dependent and independent variables
2. Constructing pretesting and post-testing instruments
3. Identifying control and experimental groups
4. Selecting subjects using appropriate sampling designs

Competency 8: The student will be able to explore the survey research method as a mode of observation by:

1. Identifying topics that are appropriate for the survey research method
2. Reviewing questioning guidelines
3. Constructing a questionnaire for a specific survey research topic
4. Reviewing methods and techniques of survey administration

Competency 9: The student will be able to explore the qualitative field research method as a mode of observation by:

1. Identifying topics that are appropriate for the qualitative field research method
2. Listing special considerations for conducting qualitative field research
3. Listing strengths and weaknesses of qualitative field research

Learning Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively