Stephen F. Austin State University
DeWitt School of Nursing
RN-BSN RESEARCH AND APPLICATION OF EVIDENCE BASED PRACTICE
SYLLABUS
Course Number:  NUR 439
Section Number:  501
Clinical Section Number:  502
Fall 2010

Course Instructor
Karen Migl, Ph.D, RNC, WHNP-BC

ALL INFORMATION IN THIS SYLLABUS IS SUBJECT TO THE WRITTEN
POLICIES AND PROCEDURES OF THE SCHOOL OF NURSING, STEPHEN F.
AUSTIN STATE UNIVERSITY, NACOGDOCHES, TEXAS.

IN THE CASE OF COMMISSION, OMISSION, AMBIGUITY, VAGUENESS, OR
CONFLICT, THE POLICIES AND PROCEDURES OF THE SCHOOL OF
NURSING SHALL CONTROL.

EACH STUDENT SHALL BE RESPONSIBLE FOR ACTUAL AND/OR
CONSTRUCTIVE KNOWLEDGE OF THE POLICIES AND PROCEDURES OF
THE SCHOOL OF NURSING AND FOR COMPLIANCE THEREWITH.

EACH STUDENT IS RESPONSIBLE FOR ALL INFORMATION IN THIS
SYLLABUS.

This syllabus is provided for informational purposes only.
Faculty Contact Information
Name: Karen S. Migl, Ph.D, RNC, WHNP-BC
Department: Nursing
Email: kmigl@sfasu.edu
Phone: (936) 468-7729
Office: Room 162
Office Hours: Monday, 9:00 a.m. – 12 noon
Tuesday, 1:00 p.m. – 5:00 p.m.
Wednesday, 1:00 p.m. – 4:00 p.m.
and by appointment

Class meeting time and place
Online

Textbooks and Materials


Course Description
This course builds on previous, concurrent, and prerequisite courses, and clinical experiences to provide students an opportunity to develop a working knowledge of the concepts and processes of research in nursing. The course introduces techniques for critiquing published research studies. Emphasis is placed on developing the ability to discriminate, use, and disseminate nursing and interdisciplinary research to guide nursing practice in the holistic care of clients of diverse spiritual, socio-economic, and ethno-cultural backgrounds.

Number of Credit Hours
3 semester hours (2 hours didactic; 3 hours clinical practicum)

Course Prerequisites and Co-requisites
Prerequisites: MTH 220, NUR 434, NUR 435

Program Learning Outcomes/Terminal Objectives
Graduates of the program will:
1. Apply knowledge of the physical, social, and behavioral sciences in the provision of nursing care based on theory and evidence based practice.
2. Deliver nursing care within an established legal and ethical parameters in collaboration with clients and members of the interdisciplinary health care team
3. Provide holistic nursing care to clients while respecting individual and cultural diversity.
4. Demonstrate effective leadership that fosters independent thinking, use of informatics, and collaborative communication in the management of nursing care.
5. Assume responsibility and accountability for quality improvement and delivery of safe and effective nursing care.
6. Serve as an advocate for clients and for the profession of nursing.
7. Demonstrate continuing competence, growth, and development in the profession of nursing.

**General Education Core Curriculum Objectives/Outcomes**
None

**Student Learning Outcomes**
1. Relate concepts and principles of the arts, sciences, humanities, and nursing as a source for the development of evidence-based practice.
2. Demonstrate responsibility and accountability using consistent behavior patterns and professional communication.
3. Explore moral, ethical, economic, and legal issues related to planning, conducting, and utilizing research for evidence-based practice.
4. Evaluate research for applicability of findings to nursing practice.

**Course Requirements:**
Discussion Questions for each Module 20 points each (14 Modules) 280
Module Test 100 points each (14 Modules) 1400
EBP Research Poster Presentation 100 points
Critique of Qualitative Research Article (Group) 30 points
Critique of Quantitative Research Article (Group) 30 points
**Total Points** 1,940

**Course Calendar**

**Module 1:** What Is Nursing Research?
Due September 8, 2010

**Learning Outcomes**
1. Distinguish nursing research from non-nursing research.
2. Explain the relationship between practice and research.
3. State two ways in which a staff nurse contributes to nursing research.
4. Describe the ways a staff nurse amasses knowledge that relates to practice.
5. Distinguish between quantitative and qualitative research, both in published nursing studies and in outcomes research.

**Module 2:** What Is Quantitative Research?
Due September 15, 2010

**Learning Outcomes**
1. State the best way to determine whether a research study is quantitative or qualitative.
2. Identify the four types of quantitative research.
3. Explain the differences between basic and applied research.
4. Explain the difference between naturalistic research and non-naturalistic research.
5. Explain what control is and why the researcher exerts it.
6. Identify the steps of the research process in published quantitative research.
7. Identify the principal parts of a research article and explain which are the most important to read when initially skimming the article.

Module 3: Qualitative Research
Due September 22, 2010
Learning Outcomes
1. Summarize the differences between quantitative and qualitative research.
2. Distinguish a quantitative study from a qualitative study.
3. Explain how qualitative research contributes to evidence-based practice.
4. Describe the five most common qualitative methods used in nursing research:
   - The differences among them; their origins; their tenets; their purposes; and, their data collection and analysis practices.
5. Perform qualitative data coding using the grounded theory method.
6. Identify the extent to which the qualitative researcher participates in data generation and how the researcher maintains objectivity.
7. Identify bias control strategies used in qualitative research.
8. Explain how scientific rigor supports the qualitative research process.

Module 4: Research Problems, Purposes, and Hypotheses
Due September 29, 2010
Learning Outcomes
1. Identify research problems, purposes, questions, and hypotheses.
2. Explain the connection among the research question, the method, and the researcher. Explain the relationship among problem, question, and design.
3. Identify causal versus associative, simple versus complex, directional versus non-directional, and null versus research hypotheses.
4. Identify independent and dependent variables, and research variables.
5. Explain the difference between extraneous and confounding variables.
6. Conceptually define variables.
7. Operationally define variables.

Module 5: Review of the Literature
Due October 06, 2010
Learning Outcomes
1. Locate the literature review in a published research article.
2. Explain what the literature review is.
3. Explain why a literature review is included in a published research study.
4. List what the literature review contains.
5. Critique the literature review in a quantitative study, identifying its strengths and weaknesses.
6. Critique the literature review in a qualitative study, identifying its strengths and weaknesses.
7. Perform a simple literature review for the purpose of comprehension.
8. Write a literature synopsis of evidence in a practice-based area of knowledge, identifying the state of the research art in that area.
Module 6: Understanding Theory and Research Frameworks
Due Oct 13, 2010
Learning Outcomes

1. Draw a conceptual map, given a written theory.
2. Explain the connection of the framework to the hypothesis.
3. Explain the use of the framework in non-interventional, non-correlational research.
4. Identify theories that would be appropriate for a given research study.
5. Conduct theoretical substruction in order to analyze the validity of concepts and operationalizations used in a research study.

Module 7: Ethics in Research
Due October 20, 2010
Learning Outcomes

1. Identify sources of current codes and regulations for ethical research.
2. Identify the principles that regulate ethical treatment of subjects before data collection begins.
3. Identify the principles that regulate ethical treatment of subjects while data collection is in progress.
4. Identify the principles that regulate ethical treatment of subjects after research data collection ends.
5. Explain what an Institutional Review Board is and what it does.
6. Design a simple research proposal.
7. Design an informed consent.
8. Evaluate benefit-risk ratio.
9. Identify expectations for researcher behavior relative to research data, comportment, and personal ethics.

Module 8: Clarifying Research Designs
Due October 27, 2010
Learning Outcomes

1. Identify independent, dependent, and extraneous variables within a research design.
2. Distinguish between interventional and noninterventional research.
3. Determine whether a study is experimental or quasi-experimental.
4. Identify threats to internal validity.
5. Define the relationship between operationalization and concept validity.
6. Refine/change a research design to minimize the Hawthorne effect.
7. Revise/change a research design to control extraneous variables.
8. Adjust/change level of significance in order to minimize Type I error.
9. Adjust/change sample size in order to minimize Type II error.
10. Adjust/revise a design to improve external validity.
11. Design a follow-up to a correlational study to test causation.
12. Redesign an experimental study so that it becomes a quasi-experimental study.
13. Identify extraneous variables and explain how each could introduce bias.
Module 9: Outcomes Research
Due November 03, 2010
Learning Outcomes
1. Explain the purpose and the focus of nursing outcomes research.
2. Explain the uses of health outcomes research.
3. List the various quantitative methods strategies used in outcomes research.
4. Explain how clinical decision analyses work.

Module 10: Populations and Samples
Due November 10, 2010
Learning Outcomes
1. Explain the meaning and give an example of sample, population, subject, and representativeness.
2. Tell the difference among various types of probability and nonprobability sampling methods and explain their use in quantitative and qualitative research.
3. Explain the connection between inclusion criteria and exclusion criteria and the reason these are established by the researcher.
4. Explain the meaning of power analysis and when it is and is not used to determine quantitative sample size.
5. Explain the meaning of theoretical saturation and how it is used to determine optimal sample size in qualitative research.
6. Explain what makes a setting natural, partially controlled, or highly controlled and what the researcher can do to change one type of setting to another.

Module 11: Measurement Strategies in Nursing
Due November 17, 2010
Learning Outcomes
1. Distinguish direct from indirect measurement.
2. Distinguish random from systematic measurement error.
3. Determine which level a given measure represents: nominal, ordinal, interval, or ratio.
4. Distinguish instrument reliability from instrument validity and explain the relationship between them.
5. Give examples of at least three measurement strategies used in research.
6. Identify the types of data collection used for quantitative research and for qualitative research.
7. Identify a major challenge of the data collection process and explain what the researcher can do to meet the challenge.
8. Explain the difference between unexpected and serendipitous results.

Module 12: Understanding Statistics in Research
Due November 24, 2010
Learning Outcomes
Explain the meaning of statistical analysis.
Identify a few common statistical tests and articulate their uses.
Explain the distinction between descriptive and inferential statistics.
Identify the basics of decision making that statistical tests use.
Explain the distinction between statistical significance and clinical significance.
Explain mean, median, mode, dispersion, tailedness.
Explain the impact of statistical significance (or lack of statistical significance) on the researcher's recommendations.
Distinguish between the two main types of error inherent in statistics and explain the connection between them.

Module 13: Critiquing Nursing Studies
Due December 01, 2010

Learning Outcomes (Quantitative)
1. Distinguish among comprehension level, comparison/analysis level, and evaluation level expectations for critiquing quantitative research.
2. Critique a quantitative research article:
   a) Analyze the connections among problem, purpose, question, variables, and design.
   b) Analyze the connections among sample, population, and generalizations.
   c) Based on literature review and significance of findings, decide whether the study has augmented the body of knowledge in its specific area.

Learning Outcomes (Qualitative)
1. Distinguish among comprehension level, comparison/analysis level, and evaluation level expectations for critiquing qualitative research.
2. Critique a qualitative research article:
   a) Make a judgment as to whether the author has provided a clear description of setting, participants, and researcher reasoning.
   b) Evaluate the study's adherence to its methodology.
   c) Decide whether decision making and reasoning are logical.
   d) Determine whether concepts, themes, and conclusions are data based.
   e) Determine whether the findings resonate with the reader and seem applicable.

Module 14: Developing an Evidence-Based Practice in Nursing
Due Dec 08, 2010

Learning Outcomes
1. Distinguish between research utilization and evidence-based practice.
2. Explain how research knowledge is classified according to strength of evidence.
3. Explain why correlational research is seldom applicable for utilization.
4. Explain the difference between a review of the literature and a synthesis review.
5. Explain why, in the Iowa Model, triggers that impact patient safety may generate guidelines based on relatively weak research evidence.
6. Explain why meta-analyses are stronger evidence than single studies.

Grading Policy
A = 89.5 - 100%
B = 79.5 - 89.4%
C = 70.5 - 79.5%
F = 74.49 and below = failing

Attendance Policy
This course is online.
**Academic Integrity (A-9.1)**

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

**Withheld Grades (Semester Grades Policy A-54)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

**Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).