NURS 3351-001I1
Research & Evidence-Based Nursing
Summer 2025
Online

Instructor Information: Terri Davis, DNP, RN

Student hours and location:
Wednesday and Thursday– 9:00 am – 12:30 pm.
tdavis9@com.edu, 409-933-8452
STEAM 225-9

Required Textbook/Materials:
LoBiondo-Wood, G. & Haber, J. (2022). *Nursing research: Methods and critical appraisal for evidence-based practice*, 10th edition. St. Louis: Elsevier, Inc.

American Psychological Association. (2020*). Publication manual of the American Psychological Association,* 7th edition. Washington, DC: APA

Course Description:
Scholarly exchange prepares the baccalaureate nurse to understand the language of research and the scientific process by evaluating quantitative, qualitative, and mixed-method research methodologies as a foundation for evidence-based practice in healthcare. This course will investigate research methods and findings and promote appraisal skills to support evidence-based, patient-centered care, quality improvement, and safety outcomes. (Credit 3: Lecture 3, Lab 0) (8-week course, 48 contact hours)

Course requirements:
1. **Discussion board:** Assess knowledge and application of incremental course content. Discussion board topics will be from the weekly reading content. Students will post one significant post related to the course content and support post with cited references. Students will reply to two of their peers' posts or instructors' questions/posts with cited references. If a student receives a grade below 70% on any discussion board rubric, the student should schedule a counseling appointment with the instructor to complete remediation. (See Discussion Board Rubric)

2. **Research Activity/Critical Appraisal:** Assesses overall knowledge and application of complete course content. Case studies/Research activities/critical appraisal will meet QSEN/NLN competencies, including teamwork, collaboration and professional identity, evidence-based practice with spirit of inquiry, safety, and nursing judgement. Submit your work via D2L Brightspace. If a student receives a grade below 70% on any case

study/research activities, the student should schedule a counseling appointment with the department remediation counselor and/or course facilitator. (See Research Activities/Appraisal Rubric)

3. **Quizzes:** These assess the overall knowledge and application of the course content. Students will complete the quizzes assigned, each due at midnight on the assigned deadline. The student will have one attempt to complete each quiz, which will be averaged for the quiz grade. The quizzes are located in D2L under the quiz tab.

4. **Term Paper:** The term paper is a written assignment that is part of a larger research project across the program. (See Term Paper Rubric). Submit your paper via D2L for the Term paper.

5. **Reflection Paper:** The purpose is to allow the student to reflect on selected Essentials of Baccalaureate Education for Professional Nursing Practice and QSEN Competencies. Also, consider the following:
- What were your goals at the beginning of the semester?
- Were you able to reach those goals or did they change?
- What was at least one challenge you faced and how did you overcome it?
- What did you gain from this class that you can use in your practice?
- Moving forward, what is your plan for the next 8 weeks/semester?
- The length of the reflection is to be no less than 300 words and no greater than 400 words, excluding title page and reference pages. APA format is required with both a title page and a reference page. (see the rubric).

6. **Weekly Participation/Professionalism**: Assesses ability to synthesize information when collaborating on a topic with peers. Students will discuss components of evidence-based research on a weekly discussion board. Students will be expected to synthesize content for the weekly discussion post and support their response with cited references. Students must synthesize postings from two peers and instructors each week and contribute substantially to the post with new information, either supporting the peers' or instructors' view or offering a different view with supporting references at least 3 days/week. This is mandatory.
- **Professionalism:** Students will receive professionalism points each day for attendance.
- **Attendance** – Student is present in the class per the institution's attendance requirements.
- **Timeliness** – student submits assignments on time.
- **Participation and engagement** – students participate in class and team activities in a meaningful and engaged way 2ds/wk. Mandatory.
- **Preparedness** – student completes all assignments and pre-class assignments.
- **Professional demeanor** – Student communicates professionally throughout the course period.
- **Objectives Application** – students will apply the objectives of this class to all classwork and assignments.

- **Teamwork** – student participates in teams collaboratively and professionally.

Determination of Course Grade/Detailed Grading Formula
Case studies/ Research/Appraisal activities
Discussion Board
Assignments/Quizzes
Audio-visual instructional aids
Written Reports

Grading Scale
A = 90 -100.00
B = 80 -89.99
C = 70 -79.99
D = 60 -69.99
F = < 60

Grade Calculation

Assignments	%
Weekly Discussion Board/Professionalism (7)	35%
Weekly Quiz (6) (located in D2L)	15%
Research Activity/Critical Appraisal	22%
Written Project: Term paper	23%
Reflection Paper	5%
Grade Total	100%
*A Grade Total of at least 70% is required to pass the course.	

Late Work, Make-Up, and Extra-Credit Policy:
All course assignments must be completed and submitted on the specified due date. See the Late Assignments Policy in the Nursing Student Handbook

Attendance Policy:
See the Attendance Policy in the Nursing Student Handbook.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via D2L or other LMS)

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
Integrate knowledge, skills, and abilities gained from personal experiential learning, prerequisite, and co-requisite	Synthesize knowledge, skills, and values from the arts, sciences, and humanities as an exemplar of professional	Quiz, discussion board

courses in the program of study.	nursing and an advocate of social justice.	
Address the role of research in providing evidence-based delivery of safe patient-centered care.	Provide comprehensive patient-centered care utilizing an organized framework to make individual, community, and population-based decisions grounded in evidence-based practice.	Quiz, discussion board Research/Appraisal activities
Apply legal and ethical standards in evaluating and applying research to provide evidence-based practice.	Utilize data to monitor outcomes of care and improvement methods to continuously improve the quality and safety of nursing care to minimize the risk of harm individually and across the healthcare system.	Case study, Quiz, discussion board, Research/Appraisal activities
Compare and contrast quantitative, qualitative, and mixed-methods research methodologies, and the contributions of each to evidence-based nursing practice.	Utilize data to monitor outcomes of care and improvement methods to continuously improve the quality and safety of nursing care to minimize the risk of harm individually and across the healthcare system.	Case study, Quiz, discussion board, Research/Appraisal activities
Appraise research and evidence-based practices as a means to support patient outcomes.	Utilize data to monitor outcomes of care and improvement methods to continuously improve the quality and safety of nursing care to minimize the risk of harm individually and across the healthcare system.	Case study, Quiz, discussion board, Research/Appraisal activities
Analyze protocols to evaluate patient care indicators and outcomes of evidence-based initiatives to support patient outcomes.	Utilize data to monitor outcomes of care and improvement methods to continuously improve the quality and safety of nursing care to minimize the risk of harm individually and across the healthcare system.	Case study, Quiz, discussion board, Research/Appraisal activities

Analyze future implications for nursing research as a foundation for evidence-based practice to enhance nursing as a profession.	Communicate and collaborate with the interdisciplinary team to lead and manage shared decision-making for optimal patient, family, population, and community outcomes.	Case study, Quiz, discussion board 8, Research/Appraisal activities

Academic Dishonesty:
Any incidence of academic dishonesty, such as cheating on exams, will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty is an extremely serious offense. See the Behavior/Conduct policy in the Nursing Student Handbook.

Student Concerns:
If you have any questions or concerns about any aspect of this course, please contact the instructor/facilitator using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact the Director of Nursing, Rachel Fano, rfano@com.edu

Plagiarism
Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, and using someone else's words without quotation marks. Any assignment containing plagiarized material will receive a grade of zero and the student will be referred to the Office of Student Conduct for appropriate disciplinary action. Also, see the Behavior/Conduct policy in the Nursing Student Handbook.

Avoiding Plagiarism: http://www.plagiarism.org/

Institutional Policies and Guidelines
Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook **https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.pdf.** *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact:

Kimberly Lachney, Student Accessibility Services Coordinator
Phone: 409-933-8919
Email: AccessibilityServices@com.edu
Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 5-week session is June 29. The last date to withdraw from the 10-week session is July 28. The last date to withdraw for the 2nd 5-week session is July 31.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they have difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program, you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:
If you are experiencing stress or anxiety about your daily living needs, including food, housing, or just feel you could benefit from free resources to help you through a difficult time, please click here https://www.com.edu/community-resource-center/. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students' office at deanofstudents@com.edu or communityresources@com.edu.

Nondiscrimination Statement:
The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.

HB1508 Statement: Notice to Students Regarding Licensing Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. The following website provides links to information about the licensing process and requirements: www.tdlr.texas.gov

Artificial Intelligence (AI): To maintain academic integrity and avoid potential plagiarism, the use of any Artificial Intelligence (AI) tools is prohibited. This means you are not allowed to use any technology that utilizes artificial intelligence, such as ChatGPT, other language models, or AI-powered software, to complete tasks or assignments or generate content.

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Course Content
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Unit 1: Integrating Research, Evidence-Based Practice, and Quality Improvement Processes

    Student Learning Outcomes:

    Upon completion of this unit, the student will be expected to:

1. State the significance of research, evidence-based practice, and quality improvement (QI).
2. Identify the role of the consumer of nursing research.
3. Define evidence-based practice.
4. Define QI.
5. Discuss evidence-based and QI decision making.
6. Explain the difference between quantitative and qualitative research.
7. Explain the difference between the types of systematic reviews.
8. Identify the importance of critical reading skills for the critical appraisal of research.
9. Discuss the format and style of research reports/articles.
10. Discuss how to use an evidence hierarchy when critically appraising research studies.

    Learning Content:
1. Nursing Research, Evidence-Based Practice, and Quality Improvement
2. Types of Research: Qualitative and Quantitative
3. Critical Reading Skills
4. Strategies for Critiquing Research Studies
5. Overcoming Barriers: Useful Critiquing Strategies
6. Evidence-based Practice and Research
7. Research Articles: Format and Style
8. Systematic Reviews: Meta-analyses, Integrative Reviews, and Meta-Syntheses
9. Clinical Guidelines
10. Quality Improvement

    Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 1

Unit 2: Research Questions, Hypotheses, and Clinical Questions
    <u>**Student Learning Outcomes**</u>:
    Upon completion of this unit, the student will be expected to:

1. Describe how the research question and hypothesis relate to the other components of the research process.
2. Describe the process of identifying and refining a research question or hypothesis.
3. Discuss the appropriate use of research questions versus hypotheses in a research study.
4. Identify the criteria for determining the significance of a research question or hypothesis.
5. Discuss how the purpose, research question, and hypothesis suggest the level of evidence to be obtained from the findings of a research study.
6. Discuss the purpose of developing a clinical question.
7. Discuss the differences between a research question and a clinical question in relation to evidence-based practice. Apply critiquing criteria to evaluate a research question and hypothesis in a research report.

    <u>**Learning Content**</u>:
1. Developing and Refining a Research Question: Study Perspective
2. The Fully Developed Research Question
3. Study Purpose, Aims, or Objectives
4. Developing the Research Hypothesis
5. Relationship Between the Hypothesis and Research Design
6. Developing and Refining a Clinical Question: A Consumer's Perspective
7. Appraisal for Evidence-Based Practice Research Question and Hypothesis
8. Key Points

    <u>**Learning Activities**</u>:
    Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 2

Unit 3: Gathering and Appraising the Literature
    <u>**Unit Student Learning Outcomes**</u>:
    Upon completion of this unit, the student will be expected to:

1. Discuss the purpose of a literature review in a research study
2. Discuss the purpose of reviewing the literature for an evidence-based and quality improvement (QI) project.
3. Differentiate the purposes of a literature review from the evidence-based practice and the research perspective.
4. Differentiate between primary and secondary sources.
5. Differentiate between systematic reviews/meta-analyses and pre-appraised synopses.
6. Discuss the purpose of reviewing the literature for developing evidence-based practice and QI projects.
7. Use the PICO format to guide a search of the literature.

8. Conduct an effective search of the literature.
9. Apply critical appraisal criteria for evaluating literature reviews in research studies.

Learning Content:
1. Review of the Literature
2. Searching for Evidence
3. Types of Resources
4. Literature Review Format: What to Expect
5. Appraisal for Evidence-Based Practice

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 3

Unit 4: Theoretical Frameworks for Research
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Describe the relationship among theory, research, and practice.
2. Identify the purpose of conceptual and theoretical frameworks for nursing research.
3. Differentiate between conceptual and operational definitions.
4. Identify the different types of theories used in nursing research.
5. Describe how a theory or conceptual framework guides' research.
6. Explain the points of critical appraisal used to evaluate the appropriateness, cohesiveness, and consistency of a framework guiding research.

Learning Content:
1. Practice-Theory-Research Links
2. Overview of Theory
3. Types of Theories Used by Nurses
4. How Theory is Used in Nursing Research
5. Application to Research and Evidence-Based Practice

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 4

Unit 5: Introduction to Qualitative Research
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Describe the components of a qualitative research report.
2. Describe the beliefs generally held by qualitative researchers.
3. Identify four ways qualitative findings can be used in evidence-based practice.

Learning Content:

1. What is Qualitative Research?
2. What Do Qualitative Researchers Believe?
3. Does the Methodology Fit with the Research Question Being Asked?
4. Components of a Qualitative Research Study
5. Discussion of the Results and Implications for Evidence-Based Practice
6. Appraisal for Evidence-Based Practice Foundation of Qualitative Research

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 5

Unit 6: Qualitative Approaches to Research
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Identify the processes of phenomenological, grounded theory, ethnographic, and case study methods.
2. Recognize appropriate use of community-based participatory research (CBPR) methods.
3. Discuss significant issues that arise in conducting qualitative research in relation to such topics as ethics, criteria for judging scientific rigor, and the combination of research methods.
4. Apply critical appraisal criteria to evaluate a report of qualitative research.

Learning Content:
1. Qualitative Approach and Nursing Science
2. Qualitative Research Methods
3. Synthesizing Qualitative Evidence: Meta-Synthesis
4. Issues in Qualitative Research
5. Appraisal for Evidence-Based Qualitative Research

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 6

Unit 7: Appraising Qualitative Research
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Understand the role of critical appraisal in research and evidence-based practice.
2. Identify the criteria for critiquing a qualitative research study.
3. Identify the stylistic considerations in a qualitative study.
4. Apply critical reading skills to the appraisal of qualitative research.
5. Evaluate the strengths and weaknesses of a qualitative study.
6. Describe the applicability of the findings of a qualitative study.
7. Construct a written critique of a qualitative study.

Learning Content:
1. Critical Appraisal and Qualitative Research Considerations
2. Application of Qualitative Research Findings
3. The Research Study
4. The Critique

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 7

Unit 8: Introduction to Quantitative Research
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Define research design.
2. Identify the purpose of a research design.
3. Define control and fidelity as they affect research design and the outcomes of a study.
4. Compare and contrast the elements that affect fidelity and control.
5. Begin to evaluate what degree of control should be exercised in a study.
6. Define internal validity.
8. Identify the threats to internal validity.
9. Define external validity.
10. Identify the conditions that affect external validity.
11. Identify the links between study design and evidence-based practice.
12. Evaluate research design using critiquing questions.

Learning Content:
1. Research Design and Purpose
2. Objectivity in the Research Question Conceptualization
3. Accuracy
4. Control and Intervention Fidelity
5. Quantitative Control and Flexibility
6. Internal and External Validity
7. Appraisal for Evidence-Based Practice Quantitative Research

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 8

Unit 9: Experimental and Quasi-Experimental Designs
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

I. Describe the purpose of experimental and quasi-experimental research.
II. Describe the characteristics of experimental and quasi-experimental designs.

III. Distinguish between experimental and quasi-experimental designs.
IV. List the strengths and weaknesses of experimental and quasi-experimental designs.
V. Identify the types of experimental and quasi-experimental designs.
VI. Identify potential internal and external validity issues associated with experimental and quasi-experimental designs.
VII.   Critically evaluate the findings of experimental and quasi-experimental studies.
VIII.   Identify the contribution of experimental and quasi-experimental designs to evidence-based practice.

Learning Content:
1. Research Process
2. Experimental Design
3. Quasi-Experimental Designs
4. Evidence-Based Practice
5. Appraisal for Evidence-Based Practice: Experimental and Quasi-Experimental Designs

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 9

Unit 10: Nonexperimental Designs
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Describe the purpose of nonexperimental designs.
2. Describe the characteristics of nonexperimental designs.
3. Define the differences between non-experimental designs.
4. List the advantages and disadvantages of nonexperimental designs.
5. Identify the purpose and methods of methodological, secondary analysis, and mixed-method designs.
6. Identify the critical appraisal criteria used to critique nonexperimental research designs.
7. Evaluate the strength and quality of evidence by non-experimental designs.

Learning Content:
1. Survey Studies
2. Relationship and Difference Studies
3. Prediction and Causality in Nonexperimental Research
4. Additional Types of Quantitative Methods
5. Appraisal for Evidence-Based Practice: Nonexperimental Designs

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 10

Unit 11: Systematic Reviews and Clinical Practice Guidelines
Unit Student Learning Outcomes:

Upon completion of this unit, the student will be expected to:

1. Describe the types of research reviews.
2. Describe the components of a systematic review.
3. Differentiate between a systematic review, meta-analysis, and integrative review.
4. Describe the purpose of clinical guidelines.
5. Differentiate between an expert- and an evidence-based clinical guideline.
6. Critically appraise systematic reviews and clinical practice guidelines.

Learning Content:
1. Systematic Review Types
2. Systematic Review
3. Meta-Analysis
4. Cochrane Collaboration
5. Integrative Review
6. Reporting Guidelines: Systematic Reviews and Meta-Analysis
7. Tools for Evaluating Individual Studies
8. Clinical Practice Guidelines
9. Evaluating Clinical Practice Guidelines
10. Appraisal for Evidence-Based Practice, Systematic Reviews and Clinical Guidelines

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 11

Unit 12: Sampling
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Identify the purpose of sampling.
2. Define *population, sample,* and *sampling.*
3. Compare a population and a sample.
4. Discuss the importance of inclusion and exclusion criteria.
5. Define *nonprobability* and *probability sampling.*
6. Identify the types of nonprobability and probability sampling strategies.
7. Compare the advantages and disadvantages of nonprobability and probability sampling strategies.
8. Discuss the contribution of nonprobability and probability sampling strategies to the strength of evidence provided by study findings.
9. Discuss the factors that influence sample size.
10. Discuss potential threats to internal and external validity as sources of sampling bias.
11. Use the critical appraisal criteria to evaluate a research report's "Sample" section.

Learning Content:
1. Sampling Concepts

2. Types of Samples
3. Sample Size
4. Appraisal of Evidence-Based Sampling

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 12

Unit 13: Legal and Ethical Issues
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Describe the historical background that led to the development of ethical guidelines for using human subjects in research.
2. Identify the essential elements of an informed consent form.
3. Evaluate the adequacy of an informed consent form.
4. Describe the institutional review board's role in the research review process.
5. Identify populations of subjects who require special legal and ethical research considerations.
6. Describe the nurse's role as a patient advocate in research situations.
7. Critique the ethical aspects of a research study.

Learning Content:
1. Sampling Concepts
2. Types of Samples
3. Sample Size
4. Appraisal of Evidence-Based Sampling

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 13

Unit 14: Data Collection Methods
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Define the types of data collection methods used in research.
2. List the advantages and disadvantages of each data collection method.
3. Compare how specific data collection methods contribute to the strength of evidence in a study.
4. Identify potential sources of bias related to data collection.
5. Discuss the importance of intervention fidelity in data collection.
6. Critically evaluate the data collection methods used in published research studies.

Learning Content:
1. Measuring Variables of Interest

2. Data Collection Methods
3. Construction of New Instruments
4. Appraisal for Evidence-Based Practice Data Collection Methods

   Learning Activities:
   Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 14

Unit 15: Reliability and Validity
   Unit Student Learning Outcomes:
   Upon completion of this unit, the student will be expected to:

1. Discuss how measurement errors can affect the outcomes of a study.
2. Discuss the purposes of reliability and validity.
3. Define *reliability.*
5. Discuss the concepts of stability, equivalence, and homogeneity related to reliability.
6. Compare and contrast the estimates of reliability.
7. Define *validity.*
8. Compare and contrast content, criterion-related, and construct validity.
9. Identify the criteria for critiquing the reliability and validity of measurement tools.
10. Use the critical appraisal criteria to evaluate the reliability and validity of measurement tools.
11. Discuss how reliability and validity contribute to the strength and quality of evidence provided by the findings of a research study.

   Learning Content:
   1. Reliability, Validity, and Measurement Error
   2. Validity
   3. Reliability
   4. Classic Test Theory Versus Item Response Theory
   5. How Validity and Reliability are Reported.
   6. Appraisal for Evidence-Based Practice Reliability and Validity

   Learning Activities:
   Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 15

Unit 16: Data Analysis: Descriptive and Inferential Statistics
   Unit Student Learning Outcomes:
   Upon completion of this unit, the student will be expected to:

1. Differentiate between descriptive and inferential statistics.
2. State the purposes of descriptive statistics.
3. Identify the levels of measurement in a study.
4. Describe a frequency distribution.
5. List measures of central tendency and their use.

6. List measures of variability and their use.
7. State the purpose of inferential statistics.
8. Explain the concept of probability as it applies to sample data analysis.
9. Distinguish between a type I and type II error and their effect on a study's outcome.
10. Distinguish between parametric and nonparametric tests.
12. List some commonly used statistical tests and their purposes.
13. Critically appraise the statistics used in published research studies.
14. Evaluate the strength and quality of the evidence provided by the findings of a research study and determine applicability to practice.

Learning Content:
1. Levels of Measurement
2. Descriptive Statistics
3. Inferential Statistics
4. Appraisal for Evidence-Based Practice Descriptive and Inferential Statistics

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 16

Unit 17: Understanding Research Findings
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Discuss the difference between the "Results" and the "Discussion" sections of a research study.
2. Determine if findings are objectively discussed.
3. Describe how tables and figures are used in a research report.
4. List the criteria of a meaningful table.
5. Identify the purpose and components of the "Discussion" section.
6. Discuss the importance of including generalizability and limitations of a study in the report.
7. Determine the purpose of including recommendations in the study report.
8. Discuss how the strength, quality, and consistency of evidence the findings provide are related to a study's results, limitations, generalizability, and applicability to practice.

Learning Content:
1. Findings
2. Appraisal for Evidence-Based Practice Research Findings

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 17

Unit 18: Appraising Quantitative Research
Unit Student Learning Outcomes:

Upon completion of this unit, the student will be expected to:

1. Identify the purpose of the critical appraisal process.
2. Describe the criteria for each step of the critical appraisal process.
3. Describe the strengths and weaknesses of a research report.
4. Assess the strength, quality, and consistency of evidence provided by a quantitative research report.
5. Discuss the applicability of the findings of a research report for evidence-based nursing practice.
6. Conduct a critique of a research report.

Learning Content:
1.   Findings
2.   Appraisal for Evidence-Based Practice Research Findings

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 18

Unit 19: Strategies and Tools for Developing an Evidence-Based Practice
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Identify the key elements of a focused clinical question.
2. Discuss the use of databases to search literature.
3. Screen a research article for relevance and validity.
4. Critically appraise study results and apply the findings to practice.
5. Make clinical decisions based on evidence from literature, clinical expertise, and patient preferences.

Learning Content:
1. Evidence-based Strategy 1: Asking a Focused Clinical Question
2. Evidence-based Strategy 2: Searching the Literature
3. Evidence-based Strategy 3: Screening Your Findings
4. Evidence-based Strategy 4: Appraise Each Article's Findings
5. Evidence-based Strategy 5: Applying the Findings
6. Summary

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 19

Unit 20: Developing an Evidence-Based Practice
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Differentiate among the conduct of nursing research, evidence-based practice, and translation science.
2. Describe the steps of evidence-based practice.
3. Describe strategies for implementing evidence-based practice changes.
4. Identify steps for evaluating an evidence-based change in practice.
5. Use research findings and other forms of evidence to improve the quality of care.

Learning Content:
1. Overview of Evidence-based Practice
2. Steps of Evidence-based Practice
3. Future Directions

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 20

Unit 21: Quality Improvement
Unit Student Learning Outcomes:
Upon completion of this unit, the student will be expected to:

1. Discuss the characteristics of quality health care defined by the Institute of Medicine.
2. Compare the characteristics of the major quality improvement (QI) models used in health care.
3. Identify two databases that report health care organizations' performance to promote consumer choice and guide clinical QI activities.
4. Describe the relationship between nursing-sensitive quality indicators and patient outcomes.
5. Describe the steps in the improvement process and determine appropriate QI tools to use in each phase of the improvement process.
6. List four themes for improvement to apply to the unit where you work.
7. Describe ways that nurses can lead QI projects in clinical settings.
8. Use the SQUIRE Guidelines to critique a journal article reporting the results of a QI project.

Learning Content:
1. Overview of Evidence-based Practice
2. Steps of Evidence-based Practice
3. Future Directions

Learning Activities:
Read: LoBiondo-Wood, G. & Haber, J. (2022) Chapter 21