

## New Course Proposal Checklist

Submission Date: November 4, 2021


Department: Nursing

Course Title: NUR260 Nursing Research and Informatics

Prepared by: Carol Velas

Department Chair: Carol Velas

X if standards are met	Required Information	Questions/Comments
X	Cover page that includes the department's endorsement	
X	A brief rationale for proposing a new course	
X	Course description for the catalogue	
X	Prerequisites	
X	Course Credit Units	
NA	Modified catalog requirements showing new course placement in each major track and minor (if appropriate)	
X	Syllabus that follows the <a href="#">guidelines for syllabus</a> preparation	
X	Course Learning Outcomes (CLOs) aligned with the departmental PLOs and listed in a syllabus	
	Frequency of offering: Check the appropriate box:	
	- every semester	
	- once a year (F or S)	
	- once every other year	
	- Mayterm only	
X	- other (specify) VARIES, FALL AND SPRING	
	Resources application: Check the appropriate box:	
X	- staffing requirements (adjunct)	
X	- IT resources	
NA	- other resources such as equipment, space, lab resources	
NA	<b>Attached Letter /Email from Provost if resources are required</b>	
NA	Library resources : <b>Attached Letter/Email from the Library Director or Associate Library Director if resources are required</b>	
NUR260	<b>Requested Course number:</b> Final determination by the Registrar upon consultation with the Department Chair	



11-4-21

Department Chair (signature)

Date



**To: Academic Senate**  
**From: Department of Nursing-ABSN Program**  
**Subject: Proposal for new course**  
**Date: November 4, 2021**

The Accelerated Bachelor of Science in Nursing program is a new program at Westmont College. This is a second bachelor degree program with an accelerated prelicensure nursing curriculum. The program is 4 semesters of 16 weeks each. Nursing courses include concurrent theory and clinical courses.

### **New course**

NUR260 Nursing Research and Informatics is a 3-unit course placed in the second semester. This is a course in a series of baccalaureate core nursing courses to prepare the nursing student for entry level practice as a nurse generalist.

We are proposing this course so students will have the basic understanding of the importance of research and informatics in providing best practices in patient care. Students will learn the difference between qualitative, quantitative, and mixed methodology and the importance of each method for the inquiry of and advances in patient care. Informatics will be introduced as a necessary technology to track and trend patient outcomes to support changes in practice including prescriptive and predictive analytics that support these changes.

The attached syllabus enumerates the Course Learning Outcomes including mapping to the Program Learning Outcomes.

The course will be offered two times per year in varying semesters as the program admits two cohorts of students. Because this is a new course and a new program it will require new staff and IT resources.

This course is part of the required curriculum for the Bachelor of Science in Nursing Program. The placement of this course in the curriculum is permanent in the Second semester.

### **Westmont catalog course description**

The nursing research course explores the basics of qualitative, quantitative, and mixed methodology to explore a variety of research designs and frameworks. Research

problems, purposes and hypothesis will be explained and nursing students will learn how to write a PICOT question. Students will be exposed to statistical methods for data analysis. Nursing is an evidence-based practice and students will learn the importance of nurses conducting nursing research. This course will also integrate the importance of nursing informatics as a way to measure the outcomes of patient care by tracking, trending, and analyzing the data collected through the electronic medical records and other data collection applications.



# NUR260 Nursing Research and Informatics

2022

## NUR260 Nursing Research and Informatics

### 3 units of theory

**Pre-requisites:** Acceptance into A-BSN program

**Placement in curriculum:** Prelicensure requirement

**Time:** TBD

**Room:** TBD

**Course Faculty:** TBD

**Faculty office:** TBD

**Faculty email:** TBD

**Faculty phone:** TBD

**Faculty office hours:** TBD

### I. Important Information

This is a course in a series of prelicensure nursing courses to prepare the nursing student for the safe, patient-centered and family-supported, evidence-based, compassionate care in a variety of healthcare settings. The best way to be prepared for your lecture and clinical experience is to maintain a healthy mental, physical, and spiritual life. Come to class after a good night's sleep, eat nutritious food, and stay current with reading assignments. To help with your success in this course and program, it is not suggested you work more than 20 hours per week if you have to work.

### Westmont catalogue course description

The nursing research course explores the basics of qualitative, quantitative, and mixed methodology to explore a variety of research designs and frameworks. Research problems, purposes and hypothesis will be explained and nursing students will learn how to write a PICOT question. Students will be exposed to statistical methods for data analysis. Nursing is an evidence-based practice and students will learn the importance of nurses conducting nursing research. This course will also integrate the importance of nursing informatics as a way to measure the outcomes of patient care by tracking, trending, and analyzing the data collected through the electronic medical records and other data collection applications.

### Instructor's further description

As providers of care, you will learn quickly why the practice of nursing is evidence-based and why it is important to have bedside caregivers as nursing researchers. Who better to change practice with evidence than those at the bedside? You will learn how to read a study so you understand the purpose, design, findings, and application to our practice in nursing. You will also explore the importance of the literature review which will continue to be helpful in this program.

**ABSN Program Mission**

Prepares faithful servant leaders to provide patient-centered and family supported safe, compassionate care for diverse populations and communities across the lifespan and in all health care settings.

**AACN Baccalaureate Essentials (2018)**

The Commission on Collegiate Nursing Education (CCNE) is an autonomous accrediting agency, contributing to the improvement of the public's health. A specialized/professional accrediting agency, CCNE strives to promote the quality and integrity of baccalaureate and graduate nursing programs. Following are the nine baccalaureate essentials used as the framework for the current curriculum. In 2021 the Essentials were revised and will be integrated into the curriculum over the next three years.

- I Liberal Education for Baccalaureate Generalist Nursing Practice
- II Basic Organizational and Systems Leadership for Quality Care and Patient Safety
- III Scholarship for Evidence-Based Practice
- IV Information Management and Application of Patient Care Technology
- V Healthcare Policy, Finance, and Regulatory Environments
- VI Interprofessional Communication and Collaboration for Improving Patient Health Outcomes
- VII Clinical Prevention and Population Health
- VIII Professionalism and Professional Values
- IX Baccalaureate Generalist Nursing Practice

**AACN Essentials (revised 2021)**

The Essentials: Core Competencies for Professional Nursing Education provides a framework for preparing individuals as members of the discipline of nursing, reflecting expectations across the trajectory of nursing education and applied experience. The *Essentials* introduce 10 domains that represent the essence of professional nursing practice and the expected competencies for each domain. The competencies accompanying each domain are designed to be applicable across four spheres of care (disease prevention/promotion of health and wellbeing, chronic disease care, regenerative or restorative care, and hospice/palliative/supportive care), across the lifespan, and with diverse patient populations.

**Domains for Nursing**

Domains are broad distinguishable areas of competence that, when considered in the aggregate, constitute a descriptive framework for the practice of nursing.

**The Ten Domains:**

- Domain 1-Knowledge for Nursing Practice
- Domain 2-Person-centered Care
- Domain 3-Population Health
- Domain 4-Scholarship for Nursing Practice

- Domain 5-Quality and Safety
  - Domain 6-Interprofessional Partnerships
  - Domain 7-Systems-based Practice
  - Domain 8-Information and Healthcare Technology
  - Domain 9-Professionalism
  - Domain 10-Personal, Professionals, Leadership Development
- (The Essentials: Core Competencies for Professional Nursing Education, 2021)

**Program Learning Outcomes (PLO)**

1. Exhibit Christian character and servant leadership while providing compassionate care for a diverse population in communities across state, national, and global settings.
2. Evidence-based best practices, critical thinking, and clinical reasoning, inform clinical judgement for the provision of patient-centered, safe, quality care.
3. Create patient education plans that are culturally specific to the patient and that incorporate the family support system.
4. Communicate effectively with the interprofessional team to ensure a wholistic approach to patient-centered care.
5. Continue inquisitive learning by using the Electronic Medical Record and Informatics to meet quality metrics in a variety of healthcare and geographic settings.
6. Advocate for healthcare policies for the underserved, vulnerable populations to ensure equity with access to care for prevention, remedial, supportive, and rehabilitative nursing care regionally, nationally, and globally.

**Course Learning Outcomes (CLO)**

1. Discusses the importance of the literature review when beginning a research project or as a way to collect information to support scholarly writing.
2. Describes the use of informatics and evidence-based practice.
3. Uses the PICOT framework prior to a literature review to assist in finding relevant articles for nursing inquiry.
4. Examines ethics in nursing research.
5. Discusses confidentiality, privacy, and security in informatics.
6. Appraise the Electronic Medical Record and its benefit as a tool in care delivery systems.
7. Compares and contrast quantitative, qualitative, mixed, and outcomes research.
8. Examines different types of statistics used in research.
9. Evaluates own practice to ensure it is evidence-based and outcomes oriented.
10. Defends the need for ongoing nursing research to drive practice change and quality nursing care.
11. Create nursing care plans using predictive and prescriptive analytics.

**PLO and CLO Alignment Table**

Program Learning Outcomes	Course Learning Outcomes
1. Exhibit Christian character and servant leadership while providing compassionate care for a diverse population in	N/A

communities across state, national, and global settings.	
2. Evidence-based best practices, critical thinking, and clinical reasoning, inform clinical judgement for the provision of patient-centered, safe, quality care.	2. Describes the use of informatics and evidence-based practice. 3. Uses the PICOT framework prior to a literature review to assist in finding relevant articles for nursing inquiry. 9. Evaluates own practice to ensure it is evidence-based and outcomes oriented. 10. Defends the need for ongoing nursing research to drive practice change and quality nursing care.
3. Create patient education plans that are culturally specific to the patient and that incorporate the family support system.	N/A
4. Communicate effectively with the interprofessional team to ensure a holistic approach to patient-centered care.	N/A
5. Continue inquisitive learning by using the Electronic Medical Record and Informatics to meet quality metrics in a variety of healthcare and geographic settings.	6. Appraise the Electronic Medical Record and its benefit as a tool in care delivery systems. 11. Create nursing care plans using predictive and prescriptive analytics.
6. Advocate for healthcare policies for the underserved, vulnerable populations to ensure equity with access to care for prevention, remedial, supportive, and rehabilitative nursing care regionally, nationally, and globally.	N/A

### Required Textbooks

Title	Author	Publisher	ISBN#
Understanding Nursing Research: Building an	Susan K. Grove and Jennifer R. Gray	Elsevier	978-0323532051



Evidence-based Practice (7 <sup>th</sup> ed.)			
Applied Clinical Informatics for Nurses (2 <sup>nd</sup> ed.)	Susan Alexander, Karen H. Frith, and Haley Hoy	Jones and Bartlett Learning	9781284129175
<b>Nursing Diagnosis</b> textbook of your choice (can be a bundled application on smart phone)			
<b>Nursing Drug</b> textbook of your choice (can be a bundled application on smart phone)			
Publication Manual of the American Psychological Association (7 <sup>th</sup> ed.)	American Psychological Association	American Psychological Association	978-143383216

### Suggested Resources

1. Articles
2. Position Papers
3. Healthcare Policies
4. Westmont College Library and online databases (EBSCO, ProQuest, ERIC, CINALH)

### Assessment of CLOs (Assignments, quizzes, exams)

The assessments used in this course to measure your learning and meeting the content objectives and course learning outcomes will include class participation, quizzes, exams using NCLEX style questions, and a signature assessment (comprehensive assessment).

Course Learning Outcomes	Instructional activity	Assessment
1. Discusses the importance of the literature review when beginning a research project or as a way to collect information to support scholarly writing. 2. Describes the use of informatics and evidence-based practice. 3. Uses the PICOT framework prior to a literature review or finding relevant articles for class projects. 4. Examines ethics in nursing research. 5. Discusses confidentiality, privacy, and security in informatics.	Lecture, class discussion, shared experiences, research critiques	Quizzes Quantitative research critique Qualitative research critique PICOT question

<p>6. Appraise the Electronic Medical Record and its benefit as a tool in care delivery systems.</p> <p>7. Compares and contrast quantitative, qualitative, mixed, and outcomes research.</p> <p>8. Examines different types of statistics used in research.</p> <p>9. Evaluates own practice to ensure it is evidence-based and outcomes oriented.</p> <p>10. Defends the need for ongoing nursing research to drive practice change and quality nursing care.</p> <p>11. Create nursing care plans using predictive and prescriptive analytics.</p>		
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Class participation	= P/NC
Quizzes 6 X 10pts each	= 60pts
Research article critique 2 x 100pts	= 200pts
Assurance Training	= 50pts
<u>PICOT question paper</u>	<u>= 100pts</u>
Total = 410pts	

**\*Student must pass course with 75% to progress.**

## II. Course Policies

### Grading

Grade points per unit of credit are assigned on the following scale:

A 4 grade points

A- 3.7 grade points

B+ 3.3 grade points

B 3.0 grade points

B- 2.7 grade points

C+ 2.3 grade points

C 2.0 grade points

C- 1.7 grade points

D+ 1.3 grade points

D 1.0 grade points

D- 0.7 grade points

P (At least D-) No grade points assigned. Not computed in the grade point average.

F 0 grade points

NC (F) No grade points assigned. Not computed in the grade point average. W No grade points assigned. Not computed in grade point average.

WF No grade points assigned. Not computed in grade point average.

WP No grade points assigned. Not computed in grade point average.

WX No grade points assigned. Not computed in grade point average.

Westmont does not compute the units and grades students earned at other colleges in its grade average. (Exception: Courses and grades taken as part of a Westmont off-campus program are posted on the Westmont transcript and will be calculated in the Westmont GPA.)

Apart from the exceptions identified below, all courses at Westmont are graded using a letter scale (A, B, C, D, F).

Instructor Initiated Exceptions:

1. For pedagogical reasons, an instructor may elect to use P/NC grade reporting in any class not approved for GE credit. It is assumed that the same grade-reporting system will be applied to the entire class.
2. With the approval of the General Education Committee, P/NC grade reporting may be used in appropriate, GE-approved courses.
3. When P/NC grade reporting is used, the syllabus must reflect this fact. In addition, departments are encouraged to include a notice in the catalog that the course may use P/NC grading.

### **Office of Disability Services**

Students who have been diagnosed with a disability are strongly encouraged to contact the Office of Disability Services as early as possible to discuss appropriate accommodations for this course. Formal accommodations will only be granted for students whose disabilities have been verified by the Office of Disability Services. These accommodations may be necessary to ensure your equal access to this course.

Please contact Sheri Noble, Director of Disability Services. (310A Voskuyl Library, 565-6186, [snoble@westmont.edu](mailto:snoble@westmont.edu)) or visit the website for more information:

<http://www.westmont.edu/offices/disability>

### **Dress Code**

Comfortable, non-binding clothing

### **Academic Integrity**

When students join our college community, they are expected, as apprentice scholars, to search for truth with integrity and accuracy. This quest requires humility about our abilities, respect for the ideas of others, and originality in our thinking. Since Westmont is a Christian community, the integrity of our scholarship is rooted in the integrity of our faith. We seek to be followers of Christ in the classroom, in the library, and at the privacy of our computers. Violations of academic integrity are a serious breach of trust

within the Westmont community because they violate the regard for truth essential to genuine learning and Christian consistency. Such deception also hurts those students who do their work with integrity. Violations of Academic Integrity may consist of cheating (the use of unauthorized sources of information on an examination or other assignment), falsification (misrepresentation of facts in any academic project or obligation) or plagiarism (the use of someone else's words or ideas without giving proper credit). Faculty and students should operate in an environment of mutual trust and respect. Faculty will expect students to act in ways consistent with academic integrity. However, for both scholarly and spiritual reasons, cheating, falsification, plagiarism and all other violations of academic integrity will not be tolerated in the Westmont community. Please familiarize yourself with [the entire Westmont College Academic Integrity Policy](#). This document defines different violations of academic integrity and their consequences. It also contains very helpful information on strategies to recognize violations of academic integrity before they occur. Dishonesty in the clinical setting, will not be tolerated and students will be removed followed by program suspension or termination.

### Technology in the Classroom

Laptops, tablets, and smart phones can be used in the classroom with the permission of the faculty. The use of smart phones in the clinical setting will depend on each clinical setting's rules. Smart phones in the clinical setting can be used for clinical related resources (drug book, Tabers, calculation, etc). Recording lectures is also at the discretion of the faculty and permission must be granted.

### Emergencies

In the event that an emergency occurs during instruction, it is important to be familiar with the practices in place for the classroom. Please review the document at <https://integready.app.box.com/AnticipatingInClass> and direct any questions or concerns to the Office of Institutional Resilience.

## III. Weekly course schedule

### Textbooks

Understanding Nursing Research **G/G**

Applied Clinical Informatics for Nurses **A/F/H**

**\*Subject to change at any time, you will be notified of any changes**

Week	Content Objectives	Reading	Activities and assignments	Outcome Measurement
½	Orientation to course and semester			
3	<b>Introduction to Nursing Research</b> 1. Discuss the purposes of research in	<b>G/G</b> <b>Ch. 1</b>  <b>A/F/H</b> <b>Ch. 1</b>	<b>Online Activity:</b> Have students visit the American Association of Colleges of Nursing's website and review the published position statement regarding participation of nurses in research based on	

	<p>implementing an evidence-based nursing practice.                  2. Examine your role in research as a professional nurse.                  3. Describe the common types of research-quantitative, qualitative, mixed methods, and outcomes-conducted to generate evidence for nursing practice.                  4. Review the history of the development of clinical informatics in the United States.                  5. Examine the present culture of health care in the United States.</p>		<p>their educational preparation:  <a href="http://www.aacnnursing.org/News-information/Position-Statements-White-Papers/Nursing-Research">http://www.aacnnursing.org/News-information/Position-Statements-White-Papers/Nursing-Research</a></p> <p>In class, students can share examples of the research roles of nurses prepared in baccalaureate, masters, practice-doctorate, and research-focused doctorate programs.</p>	
<p>4</p>	<p><b>Quantitative Research</b>                  1. Identify the quantitative research process in descriptive, correlational, quasi-experimental, and experimental published studies.                  2. Compare and contrast the problem-solving process, nursing process, and research process.                  3. Conduct initial critical appraisals of quantitative research articles.                  4. Recognize the importance of clinical informatics to achieve efficient quality improvement techniques within</p>	<p><b>G/G</b>  <b>Ch. 2</b></p> <p><b>A/F/H</b>  <b>Ch. 2</b></p>	<p><b>Online activity:</b> Find three quantitative research articles of interest on the internet. You will use these for your first assignment.</p> <p><b>Class discussion:</b>                  What are the differences among descriptive, correlational, quasi-experimental, and experimental types of studies?</p>	<p><b>Quiz (weeks 3/4)</b></p>

	a complex healthcare system. 5.Examine the role of clinical informatics in optimizing the nurse's role in interprofessional collaboration.			
5	<p><b>Qualitative Research</b></p> <p>1. Describe four qualitative research designs—phenomenological research, grounded theory research, ethnography, and exploratory-descriptive qualitative research—and their intended outcomes.</p> <p>2. Describe strategies used by qualitative researchers to increase the credibility and transferability of their findings.</p> <p>3. Critically appraise qualitative studies for application to practice.</p> <p>4. Examine the differences in sampling, recruitment, data collection, and data analysis for quantitative and qualitative research.</p>	<p><b>G/G</b> <b>Ch. 3</b></p>	<p><b>Discussion Topic:</b> What are the advantages of using quantitative approaches to study health? What are the advantages of using qualitative approaches to studying health?</p> <p><b>Discussion Topic:</b> How are the nurse-patient relationship and the researcher-participant relationship alike? How are they different?</p> <p><b>Online Activity:</b> Students locate a short (5-minute or less) video interview with a nurse on a site such as youtube.com and transcribe the interview. How long did it take to transcribe? What factors interfered with hearing the interview and transcribing the text?</p>	
6	<p><b>Literature Review</b></p> <p>1. Discuss the purposes of the literature review in quantitative and qualitative research.</p> <p>2. Critically appraise the literature review section of a published study for current,</p>	<p><b>G/G</b> <b>Ch. 6</b></p> <p><b>A/F/H</b> <b>Ch.10</b></p>	<p><b>Discussion Topic:</b> What are the advantages of preparing a table to organize the findings of several studies? What are the disadvantages?</p> <p><b>Small group discussion:</b> What have you experienced in your nursing practice as changes related to the deployment of</p>	<b>Quiz (weeks 4/5)</b>

	<p>quality sources, relevant content, and synthesis of relevant content.</p> <p><b>3.</b> Conduct a computerized search of the literature.</p> <p><b>4.</b> Examine the major information technologies that have the potential to impact the safety of care.</p> <p><b>5.</b> Evaluate the impact on nursing when these technologies are deployed.</p>		<p>technology? How has this impacted your workload?</p>	
7	<p><b>Problems, purposes and hypotheses</b></p> <p><b>1.</b> Identify research topics, problems, and purposes in published quantitative and qualitative studies.</p> <p><b>2.</b> Critically appraise the research problems and purposes in studies.</p> <p><b>3.</b> Differentiate among the types of hypotheses (associative versus causal, simple versus complex, nondirectional versus directional, and statistical versus research).</p> <p><b>4.</b> Critically appraise the conceptual and operational definitions of variables in studies.</p> <p><b>5.</b> Discuss the benefit of the PICOT question to guide research.</p>	<p><b>G/G</b>  <b>Ch. 5</b>  <b>And</b>  <b>Ch. 13</b>  <b>pgs.</b>  <b>390-394</b></p>	<p><b>Small group activity:</b>            Give each student group a different type of qualitative or quantitative study. Have students identify the type of study they have been assigned and identify the problem statement and purpose. Be ready to share with the class.</p> <p><b>Online activity:</b>            Have students select a specialty nursing professional organization not detailed in the chapter and review the organization's website for research priorities. Discuss student findings.</p>	<p><b>Quantitative research article critique due</b></p>

	6. Diagram the PICOT question.			
8	<p>Ethics in nursing research</p> <ol style="list-style-type: none"> <li>1. Describe the role of the BSN-prepared nurse in ensuring ethical research.</li> <li>2. Discuss the historical events influencing the development of ethical codes and regulations for nursing and biomedical research</li> <li>3. Examine the ethical principles and human rights that require protection in research.</li> <li>4. Appraise the essential elements of the informed consent process in research.</li> <li>5. Evaluate the levels of review that an institutional review that an institutional review board (IRB) may use in reviewing a study.</li> <li>6. Justify the current issues in ethical research surrounding genomics research, use of animals in studies, and research misconduct.</li> <li>7. Critically appraise ethical sections in research reports with emphasis on IRB and informed consent processes.</li> <li>8. Discuss the actions required of</li> </ol>	<p><b>G/G</b> <b>Ch.4</b></p> <p><b>A/F/H</b> <b>Ch. 6</b></p>	<p><b>Discussion Topic:</b> Rights of human subjects include self-determination, fair treatment, and protection from harm and discomfort. How do these concepts match up the ethical principles used in research? Discuss respect for persons (self-determination or autonomy), justice (fair treatment), and beneficence (protection from harm or discomfort).</p> <p><b>Small group activity:</b> Have students research one of the four unethical research studies discussed in the textbook and be prepared to report out to class the impact these studies had on ethical research standards.</p>	<p><b>Quiz (weeks 6/7)</b></p> <p><b>Online Activity:</b> Review Modules 1 to 3 of Assurance Training at the Office for Human Research Protections website  <a href="https://www.hhs.gov/ohrp/education-and-outreach/human-research-protection-program-Fundamentals/index.html/assurance-training">https://www.hhs.gov/ohrp/education-and-outreach/human-research-protection-program-Fundamentals/index.html/assurance-training</a>  <b>Due Week 9</b></p>



	<p>organizations for protecting personal health information.</p> <p>9. Analyze clinical situations for compliance with privacy and security regulations.</p>			
<b>9</b>	<p><b>Frameworks</b></p> <p>1. Define theory and the elements of theory (concepts, relational statements, and propositions).</p> <p>2. Distinguish among the levels of theoretical thinking.</p> <p>3. Describe the use of middle-range theories as frameworks for studies.</p> <p>4. Describe the purpose of a research framework.</p> <p>5. Identify research frameworks developed from nursing and other theories.</p> <p>6. Critically appraise the frameworks in published studies.</p>	<p><b>G/G</b> <b>Ch. 7</b></p>	<p><b>Small group activity:</b> Compare and contrast the middle-range theories and report out to the class.</p>	<p><b>Qualitative research article critique due</b></p> <p><b>Modules 1 and 3 of the assurance training modules</b></p>
<b>10</b>	<p><b>Quantitative research designs</b></p> <p>1. Identify the noninterventive or nonexperimental designs (descriptive and correlational) and intervention or experimental designs</p>	<p><b>G/G</b> <b>Ch. 8</b></p>	<p><b>Group discussion:</b> How are descriptive correlational, predictive correlational, and model testing designs similar and different?</p> <p>What role does the literature play in the development of an experimental intervention?</p>	<p><b>Quiz (weeks 8/9)</b></p>

	<p>(quasi-experimental and experimental) commonly used in quantitative nursing studies.</p> <p><b>2.</b> Describe the concepts relevant to quantitative research designs.</p> <p><b>3.</b> Examine study designs for strengths and threats to design validity.</p> <p><b>4.</b> Critically appraise descriptive and correlational designs in studies.</p> <p><b>5.</b> Describe the elements of designs that examine causality.</p> <p><b>6.</b> Critically appraise the interventions implemented in studies.</p> <p><b>7.</b> Critically appraise</p> <p>the quasi-experimental and experimental designs in studies.</p> <p><b>8.</b> Examine the quality of randomized controlled trials conducted in nursing.</p>		<p><b>Online Activity:</b> Using a site such as PubMed (<a href="http://www.pubmed.com">www.pubmed.com</a>), have students find an example of a simple descriptive design and a comparative descriptive design and provide the citation for each, as well as a brief paragraph explaining how they identified the design.</p>	
<p><b>11</b></p>	<p><b>Populations and Samples</b></p> <p>1. Describe sampling theory with its relevant concepts.</p> <p><b>2.</b> Critically appraise the sampling criteria in published studies.</p> <p><b>3.</b> Identify the specific type(s) of probability and nonprobability sampling methods implemented in quantitative and qualitative studies.</p>	<p><b>G/G</b> <b>Ch. 9</b></p> <p><b>A/F/H</b> <b>Ch. 11</b></p>	<p><b>Topic discussion:</b></p> <p>What are the advantages and disadvantages of convenience sampling? How can some of the disadvantages of convenience sampling be overcome?</p> <p>What are some examples of the three types of research settings?</p> <p><b>Small group activity:</b></p> <p>Have students compare and contrast each of the probability sampling methods</p>	

	<p><b>4.</b> Describe the aspects of power analysis used to determine sample size in selected studies.</p> <p><b>5.</b> Critically appraise the sample size of quantitative and qualitative studies.</p> <p><b>6.</b> Critically appraise the sampling processes implemented in quantitative and qualitative studies.</p> <p><b>7.</b> Critically appraise the settings used for quantitative and qualitative studies.</p> <p><b>8.</b> Discuss the impact the EMR has had on the management of data and evidence-based nursing practice.</p> <p><b>9.</b> Appraise the challenges of the EMR including interoperability, workflow patterns, system and system related expenses, performance, and security.</p>		<p>and the uses for each. Be ready to discussion in class.</p>	
<p><b>12</b></p>	<p><b>Data Collections</b></p> <p><b>1.</b> Describe measurement theory and its relevant concepts of directness of measurement, levels of measurement, measurement error, reliability, and validity.</p> <p><b>2.</b> Determine the levels of measurement—nominal, ordinal, interval, and ratio—achieved by</p>	<p><b>G/G</b> <b>Ch. 10</b></p> <p><b>A/F/H</b> <b>Ch. 12</b></p>	<p><b>Discussion Topic:</b> What is the difference between primary data, secondary data, and administrative data?</p> <p><b>Small group discussion:</b> Have students answer the following questions:</p> <ul style="list-style-type: none"> <li>• 1. A glucometer that is used in a study with patients with diabetes was incorrectly calibrated. This is an example of which type of error?</li> <li>• 2. In a study of patient-controlled analgesia, one of</li> </ul>	<p><b>PICOT paper due Quiz (weeks 10/11)</b></p>

	<p>measurement methods in studies.</p> <p><b>3.</b> Critically appraise the reliability and validity of measurement methods in studies.</p> <p><b>4.</b> Critically appraise the accuracy, precision, and error of physiological measures used in studies.</p> <p><b>5.</b> Critically appraise the sensitivity, specificity, negative predictive value, and likelihood ratios of diagnostic tests implemented in research and clinical practice.</p> <p><b>6.</b> Critically appraise the measurement strategies—physiological measures, observations, interviews, questionnaires, and scales—used in quantitative studies.</p> <p><b>7.</b> Critically appraise the quality of the data collection section in quantitative studies.</p> <p><b>8.</b> Discuss the parts of clinical decision-support systems.</p> <p><b>9.</b> Examine how clinical decision-support systems can improve patient safety.</p> <p><b>10.</b> Evaluate the nurse’s responsibility when using clinical decision-support systems embedded in electronic health records and other</p>		<p>the nurses failed to record the number of milliliters of medication remaining when the intravenous bag was changed. This is an example of which type of error?</p> <ul style="list-style-type: none"> <li>• 3. For another type of error of physiological measures, provide an example.</li> <li>• 4. Complete this sentence: Precision of physiological measurement is similar to the _____ of scales that measure psychosocial concepts.</li> </ul> <p>Be prepared to discuss in class.</p>	
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	health information technologies.			
13	<p><b>Statistical methods</b></p> <p>1. Discuss the steps of the data analysis process: (a) management of missing data; (b) description of the sample; (c) reliability of the measurement methods; (d) exploratory analysis of the data; and (e) use of inferential statistical analyses guided by study objectives, questions, or hypotheses.</p> <p>2. Identify descriptive analyses, such as frequency distributions, percentages, measures of central tendency, and measures of dispersion, conducted to describe the sample and study variables in research reports.</p> <p>3. Compare and contrast the five types of results obtained from quasi-experimental and experimental studies that are interpreted within a decision theory framework.</p> <p>4. Examine results obtained from the inferential statistical analyses conducted to examine relationships.</p>	G/G Ch. 11	<p><b>Discussion Topic:</b> How do missing data points impact a study?</p> <p><b>Small group discussion:</b> Directions for students: Read the scenarios and answer the questions below:</p> <ol style="list-style-type: none"> <li>1. A researcher predicts that as anxiety increases, chest pain increases. What type of relationship is predicted between the variables?</li> <li>2. A report of a cross-sectional study of postoperative patients contains the finding of a significant correlation between pain and immobility. The report concludes that postoperative pain causes immobility. What is your appraisal of this conclusion?</li> <li>3. A researcher reports that the correlation between the mean scores of two instruments is <math>r = 0.48</math>. Was the relationship significant?</li> <li>4. What is the relationship between the total spiritual score and the total social support score in the hypothetical data file?</li> <li>5. A correlation of <math>r = 0.34</math> was found between pain and immobility. What percentage of the variance is explained? What percentage is unexplained? Be prepared to report out to class.</li> </ol>	

	<p>5. Compare and contrast statistical significance and clinical importance of results.</p> <p>6. Critically appraise statistical results, findings, limitations, conclusions, generalization of findings, nursing implications, and suggestions for further research a study.</p>			
14	<p><b>Building your evidence-based practice</b></p> <p>1. Critically appraise systematic reviews, meta-analyses, meta-syntheses, and mixed-methods systematic reviews of research evidence</p> <p>2. Describe the models used to promote evidence-based practice in nursing.</p> <p>3. Apply the Iowa Model of Evidence-Based Practice to make changes in healthcare agencies</p> <p>4. Apply the Grove model to implement national evidence-based guidelines in your practice.</p> <p>5. Describe the significance of evidence-based practice centers and translational research in developing evidence-based health care.</p> <p>6. Examine how Basic Principles of analytics for answering</p>	<p><b>G/G</b> <b>Ch.13</b></p> <p><b>A/F/H</b> <b>Ch.</b> <b>8/10</b></p>	<p><b>Class discussion:</b> Identify predictive and prescriptive analytics that are used in the hospital and on the units you practice. Have you seen better patient outcomes using these methods.</p> <p><b>Small Group Activity:</b> Instructions for students: Write a brief paragraph in response to the following questions: 1. From your perspective, which of the barriers to evidence-based nursing practice is the greatest? Provide the rationale for your answer. What steps could be taken to address those barriers? 2. Can you argue the business case for evidence-based nursing practice in hospitals? In other words, how does EBP decrease costs and increase resources?</p>	<p><b>Quiz (weeks 12/13)</b></p>

	healthcare questions. 7. Create algorithms from the EMR data found on your unit.			
<b>15</b>	<p><b>Digital patient empowerment and empowerment</b></p> <p><b>1.</b> Understand patient engagement and empowerment and the role of digital tools and the internet.</p> <p><b>2.</b> Explore current perspectives on digital patient engagement and empowerment.</p> <p><b>3.</b> Examine the challenges and issues related to the use of the internet in patient engagement and empowerment.</p> <p><b>4.</b> Evaluate the revolutionary digital changes in healthcare delivery systems.</p> <p><b>5.</b> Recognize future trends in patient engagement and empowerment in the digital era.</p>	<b>A/F/H Ch. 16</b>	<p><b>Class discussion:</b> How does Social Media affect the knowledge patients come to the hospital with? How does this affect the care you provide?</p> <p><b>Small group discussion:</b> Share your experience and understanding of Social Networks used by patients, social networks used by nurses, social networks used by healthcare systems. What are some concerns of future social media?</p>	
<b>16</b>	<b>Course wrap-up and shared meal in Santa Barbara</b>			

