UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

FALL 2022

COURSE NUMBER NGR 7816

COURSE TITLE Quantitative Research Design and Measurement in Nursing

CREDITS 3

PLACEMENT Variable Required Core Course

PREREQUISITE None

FACULTY Gail M. Keenan, PhD, RN, FAAN

Professor (R. Murray & Anabel Davis Jenks Professorship

in Nursing Excellence)

Office: HPNP 2220

Office Phone: (352) 273-6352

Office hours\*: Tues 12:30pm – 1:30pm or by appointment

<https://ufl.zoom.us/j/99414428501?pwd=cjA1NjFiSERYQUVyUEorR0ZKTUpHUT09>

Email: [gkeenan@ufl.edu](mailto:gkeenan@ufl.edu)

\*Faculty are generally available to meet with students (in the office or virtually) as listed above. Due to professional travel and other unavoidable obligations, faculty may not be present every week without notice. It advisable that students confirm availability or make an appointment in advance.

COURSE DESCRIPTION This course provides the foundation for evaluating quantitative research methods and designs and developing significant and innovative programs of nursing and health research. Emphasis is on principles and techniques for analyzing and developing rigorous research methods, including sampling plans, measurement, procedures and study designs.

COURSE OBJECTIVES Upon completion of this course, the student will be able to:

1. Identify research priorities in nursing and health.
2. Analyze the relationship between clinical practice and research.
3. Examine ethical principles in quantitative research.
4. Employ standardized criteria for evaluating and developing research.
5. Analyze key components of quantitative research designs and methods, including sampling plans, measurement, procedures and study designs.
6. Evaluate various experimental and non-experimental designs.
7. Critique published research articles for design and measurement

COURSE SCHEDULE:

Faculty Section Day/Time Room

Keenan 6182 Tuesday/1:55-4:55pm G112

Video recordings are on E-Learning in Canvas and will supplement in-class time. E-Learning in Canvas is accessed by using your Gatorlink account name and password at <http://elearning.ufl.edu/>.

There are several tutorials and student help links on the E-Learning login site. If you have technical questions call the UF Computer Help Desk at 352-392-HELP or send email to [helpdesk@ufl.edu.](mailto:helpdesk@ufl.edu)

It is important that you regularly check your Gatorlink account email for College and

University wide information and the course E-Learning site for announcements and notifications.

Course websites are generally made available on the Friday before the first day of classes.

TOPICAL OUTLINE

* 1. Current priorities in nursing research
  2. Searching and managing the literature
  3. Components of well-designed research plans
  4. Critiquing published research
  5. Development of substantive research questions, hypotheses, purpose statements and specific aims
  6. Experimental and non-experimental research designs
  7. Sampling methods
  8. Measurement approaches
  9. Reliability, validity and bias in researc
  10. Ethical principles of research/Protection of human subjects

TEACHING METHODS

Class participation in discussions, viewing of pre-recorded lectures, student demonstration of knowledge through writing, presentations, and tests.

LEARNING ACTIVITIES

Readings, viewing video-recorded lectures, participation in class discussions, use of bibliometric softwareresearch article critiques, development of an initial research proposal in which the student experiences how all the parts of the research process fit together.

EVALUATION METHODS/COURSE GRADE CALCULATION

Written assignments (7) (5 points each)\* 35%

Class Discussions 10%

Examination (20 points) 20%

IRB Training (Certificate required) 5%

Research proposal presentation (30 points) 30%

Total= 100%

\* Feedback will be provided to the student during the next class period discussion as noted on the class schedule.

MAKE UP POLICY

Students are expected to submit assignments by the established due dates. If extenuating circumstances occur, a student must notify Dr. Keenan of the circumstance at least 1 week ahead of due date and establish an acceptable make-up plan. Students are to inform Dr. Keenan of any sudden unforeseen circumstances that develop 1 week or less ahead of a due date that prevent the student from meeting an assignment deadline. Dr. Keenan may require documentation to validate the claim.

GRADING SCALE/QUALITY POINTS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | 95-100 | (4.0) | | C | | 74-79\* | (2.0) |
| A- | 93-94 | (3.67) | | C- | | 72-73 | (1.67) |
| B+ | 91- 92 | (3.33) | | D+ | | 70-71 | (1.33) |
| B | 84-90 | (3.0) | | D | | 64-69 | (1.0) |
| B- | 82-83 (2.67) | | D- | | 62-63 (0.67) | | | |
| C+ | 80-81 (2.33) | | E | | 61 or below (0.0) | | | |

\* 74 is the minimal passing grade

For more information on grades and grading policies, please refer to University’s grading policies: <https://catalog.ufl.edu/graduate/regulations/>

COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

ACCOMMODATIONS DUE TO DISABILITY

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

PROFESSIONAL BEHAVIOR

The College of Nursing expects all Nursing students to be professional in their interactions with patients, colleagues, faculty, and staff and to exhibit caring and compassionate attitudes. These and other qualities will be evaluated during patient contacts and in other relevant settings by both faculty and peers. Behavior of a Nursing student reflects on the student's individual’s ability to become a competent professional Nurse. Attitudes or behaviors inconsistent with compassionate care; refusal by, or inability of, the student to participate constructively in learning or patient care; derogatory attitudes or inappropriate behaviors directed at patients, peers, faculty or staff; misuse of written or electronic patient records (e.g., accession of patient information without valid reason); substance abuse; failure to disclose pertinent information on a criminal background check; or other unprofessional conduct can be grounds for disciplinary measures including dismissal.

INCLUSIVE LEARNING ENVIRONMENT

We strive to provide an inclusive learning environment as we prepare graduates who care, lead, and inspire. As we share our nursing values and personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels they belong to the College of Nursing community. <https://nursing.ufl.edu/wordpress/files/2021/08/PhD-Handbook-2021-1.pdf>

CIVILITY STATEMENT

Civility among all individuals in the CON (faculty, staff and students) is vital for an inclusive environment that fosters personal reflection, growth and a collective harmony. <https://nursing.ufl.edu/wordpress/files/2021/08/PhD-Handbook-2021-1.pdf>

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT

Academic honesty and integrity are fundamental values of the University community.

Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>. Students are required to provide their own privacy screen for all examination’s administered to student laptops. No wireless keyboards or wireless mouse/tracking device will be permitted during examinations.

UNIVERSITY AND COLLEGE OF NURSING POLICIES:

Please see the College of Nursing website for student policies (<http://students.nursing.ufl.edu/currently-enrolled/student-policies-and-handbooks/>)

REQUIRED TEXTBOOKS

Portney, L. G., & Watkins, M. P. (2020) *Foundations of clinical research: Applications to*

*evidence-based practice (4th ed).* Philadelphia, PA: F.A Davis Company

Selected readings from current nursing research literature.

RECOMMENDED TEXT

Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation design and analysis issues for*

*field settings.* Boston: Houghton Mifflin.

Harford, T. (2021) *The data detective*. United Kingdom/USA: Riverhead Books, Penguin

Random House.

Strunk, W. & White, E.B. (1999) The elements of style (ed 4). Harlow United Kingdom:

Longman and Pearson.

WEEKLY CLASS SCHEDULE

|  |  |  |
| --- | --- | --- |
| **Class & Dates**  **Tuesdays-1:55 to 4.55 PM** | **Topic** | ***Written assignments MUST be posted by 5PM Monday before on and off campus due dates.*** |
| WK1 8.30  **On campus** | Overview of the course  *Starting with the end in mind* | Check Canvas WK1 - Review items posted and be prepared to discuss in class. |
| WK2 9.6  Off campus | Searching for and managing literature | Check Canvas WK2 for: Required readings, videos, lectures, discussions, and assignments |
| WK3 9.13  **On campus** | Critiquing of published research  *PRN – Meet instructor on final paper ideas* | Check Canvas WK3 for: Required readings, videos, lectures, discussions, and assignments |
| WK4 9.20  Off campus | Developing substantive research questions, hypotheses, purpose statements, and specific aims  *PRN – Meet instructor on final paper ideas* | Check Canvas WK4 for: Required readings, videos, lectures, discussions, and assignments |
| WK5 9.27  **On campus** | In-class exercises WK4 Topic  *PRN – Meet instructor on final paper ideas* | Check Canvas WK5 for: Required readings, videos, lectures, discussions, and assignments |
| WK6 10.4  Off campus | Experimental and non-experimental research designs  *PRN – Meet instructor on final paper ideas* | Check Canvas WK6 for: Required readings, videos, lectures, discussions, and assignments |
| WK7 10.11  **On campus** | In-class exercises WK6 Topic  *PRN – Meet instructor on final paper ideas* | Check Canvas WK7 for: Required readings, videos, lectures, discussions, and assignments |
| WK8 10.18  Off campus | Sampling methods  *PRN – Meet instructor on final paper ideas* | Check Canvas WK8 for: Required readings, videos, lectures, discussions, and assignments |
| WK9 10.25  **On campus** | In-class exercises WK8 Topic  *PRN – Meet instructor on final paper ideas* | Check Canvas WK9 for: Required readings, videos, lectures, discussions, and assignments |
| WK10 11.1  Off campus | Measurement approaches & reliability, validity and bias in research  *PRN – Meet instructor on final paper ideas* | Check Canvas WK10 for: Required readings, videos, lectures, discussions, and assignments |
| WK11 11.8  **On campus** | In-class exercises for WK10 topic  *PRN – Meet instructor on final paper ideas* | Check Canvas WK11 for: Required readings, videos, lectures, discussions, and assignments |
| WK12 11.15  Off campus | Preparation for comprehensive exam | Review Course Content WKs 1-11  *Work on final proposal & presentation* |
| WK13 11.22  **On campus** | Comprehensive exam | Review Course Content WKs 1-11  *Work on final proposal & presentation* |
| WK14 11.29  Off campus | Ethical principals of research  *PRN – Meet instructor on final paper ideas* | Check Canvas WK14 for: Required readings, videos, lectures, discussions, and assignments |
| WK15 12.6  **On campus** | 10” individual proposal presentations | Proposal Presentations |
| Final Papers | Final written proposal submission | Due Date/Time TBD |

Approved: Academic Affairs Committee: 10/97;01/05

Faculty: 12/97:01/05

UF Curriculum: 06/98