Analytical Methods for Evidence-Based Practice
NUR 962
Credit Hours 3
Fall 2015

Catalog Course Description: Integrate and critically evaluate knowledge from diverse sources to develop the best evidence-based practice guidelines for improving health outcomes. Explore rigorous methodologies to design, implement, and evaluate evidence-based interventions.

Course Objectives: At the end of this course, students will:
1. Critically analyze data and evidence for evaluation of patient quality and safety
2. Choose appropriate statistical methods for analysis of population data sets
3. Apply theoretical models to develop a systematic plan for the evaluation of evidence based strategies that promote quality, population outcomes, cost effective health care and improve the practice environment
4. Systematically selects methods to evaluate the structure, outcomes and processes of systems of care within the health care organization or community.

Overarching Course Objective:
The Essentials of Doctoral Education for Advanced Nursing Practice

Prerequisites: NUR 960 or concurrently

Co-requisites: None

Professional Standards Documents: The curriculum is guided by the following documents:


Course Faculty:

Denise Soltow Hershey, PhD, FNP-BC  
Assistant Professor  
C341 Bott Building for Nursing Education and Research  
Phone: Office: 517-432-8294  
Email: denise.hershey@hc.msu.edu

Office hours: by appt.

Telephone communication: Messages left on the office phone will be returned within 48 hours M – F. For messages that are left after 5pm on Friday or the weekend please use the email system and for if you need a quicker response M – F.

Email communication: Emails will be responded to within 24 hours M-F, message left after 5 pm on Friday and over the weekend will be responded to on the following Monday. Only student msu.edu email addresses will be used by the faculty to communicate with students in the course.

Please contact me as soon as possible if you need particular accommodations due to a disability so that suitable arrangements can be made.

Instruction:

a. Methodology: This is a hybrid course utilizing face to face, synchronous and non-synchronous weekly sessions utilizing D2l and Zoom (MSU video conferencing service), face to face sessions will occur during intensives week. See course calendar for dates and times of synchronous sessions using zoom.

b. Writing Requirements: All assignments must conform to the APA 6th edition of style unless otherwise specified.

c. Required Texts/software:


Pallant, J (2013) SPSS survival manuak: A step by step guide for data analysis using IBM SPSS (5th ed), New York, McGraw Hill – This is available through Amazon.

Terry, A (2012), Clinical research for the doctor of nursing practice. Sudbury, Jones Bartlett.


IBM Statistics Grad Pack vs 22  
This is available thru various sites online; you can purchase either a 6 month or 12 month license that is good on up to 2 computers.
c. Optional texts/resources:


Required Resources, References and Supplies: Additional outside class work such as internet library research, group work or additional materials will be needed to complete assignment. Access to a computer and high speed internet connection are requirements for completion of course work. A headset with a microphone and a web-camera is the preferred conferencing hardware.

Distance Learning Services Help Line
1.800.500.1554 (24 hrs, 7 days/week)
517.355.2345 (24 hrs, 7 days/week) Always check with the Help Line first!

Evaluation:
Course Grade Requirements: As one of the nine required doctoral courses, a 3.0 grade must be attained in this course. A student who fails or does not receive a 3.0 grade in this course must meet with the course faculty.

Learning Assessments and Grading: Preparation and attendance at presentations are expected and required. Active, thoughtful participation in scholarly discussion on a consistent basis is an essential component of this learning experience and successful completion of the course.

Course Grading Scales: Your final course grade is based upon the total points earned during the semester, according to the following criteria:

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<tr>
<th>%</th>
<th>GRADE</th>
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<tbody>
<tr>
<td>90-100</td>
<td>4.0</td>
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<tr>
<td>85-89</td>
<td>3.5</td>
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<tr>
<td>80-84</td>
<td>3.0</td>
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<tr>
<td>&lt; 79</td>
<td>Not passing</td>
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<td>(Minimum passing grade)</td>
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Writing Requirements: The College of Nursing requires that students refer to a style manual when writing required papers and bibliographies. The reference format adopted by the College of Nursing is the publication manual of the American Psychological Association (most recent edition).

Assignments:
1. Final Course Paper 50%
2. Critical Appraisal of an Research Article 20%
3. SPSS assignments (4) 15%
4. Presentation of selected Model with project application 10%
5. Class Participation 5%

Evaluation and Grading: Written papers, classroom presentations, SPSS assignments and participation in D2L and class discussions will all be evaluated towards the final course grade. There are no extra credit opportunities.
ASSIGNMENT GUIDELINES: IMPORTANT: PLEASE READ!

Assignment #1: Critical Appraisal of a Research Article (20%). For this assignment students will identify a research article related to their area of interest. Once the appraisal has been completed, the student will submit their final appraisal to the course faculty. Guidelines for the assignment can be found in D2L.

Assignment #2- SPSS exercises (15%) The students will complete 4 different SPSS exercises over the semester. Each of the assignments will build upon skills learned in the previous assignments. Guidelines for each of the assignments can be found in D2L.

Assignment #3 - Model development and presentation (10%) For this assignment students will identify a model that is relevant to their area of interest, and apply the model to their project. Students will submit a power point presentation describing their model and its application to their project. Specific guidelines for this assignment can be found in D2L.

Assignment #4- Final Paper (50%) The final paper for this course should be reflective of the first parts of their project proposal. Using the format identified in Chapter 11 of Moran. The students will complete portions of the introduction, framework/theory, Methodology and Analysis sections. For specific guidelines for this assignment see D2L.

Assignment #5- Weekly discussions and participation in on-line discussions (5%) Class participation is critical for a successful graduate-level course and is expected behavior during your second year. Each student is expected to prepare in advance to participate in group discussions and activities as assigned. Guidelines for discussion board participation can be found in D2L. All students are expected to be respectful and courteous during discussions whether in-person or online. Failure to demonstrate respectful conduct will adversely affect your grade. Please view the short presentation on Netiquette by Nicole Marcisz at http://prezi.com/0eqsy1uuwio/basic-netiquette.

Students are responsible for all materials covered in class, assigned reading, and in-class activities. Due dates and times are final.

Turnitin Statement: Consistent with MSU’s effort to enhance student learning, foster honesty, and maintain integrity in our academic processes, instructors may use a tool called Turnitin to compare a student's work with multiple sources. The tool compares each student’s work with an extensive database of prior publications and papers, providing links to possible matches and a “similarity score.” The tool does not determine whether plagiarism has occurred or not. Instead, the instructor must make a complete assessment and judge the originality of the student’s work. All submissions to this course may be checked using this tool.

Students should submit papers to Turnitin Dropboxes without identifying information included in the paper (e.g. name or student number), the system will automatically show this information to faculty in your course when viewing the submission, but the information will not be retained by Turnitin.

Specific directions for a use of the Turnitin product in the course are provided in assignment directions. Please read each part of the following to fully understand your responsibilities and the position of the University regarding:

- Cheating
- Plagiarism
- MSU regulations, ordinances, and policies regarding academic honesty and integrity
University & College Policies:

The College of Nursing expects that students will demonstrate professional behavior in all situations. Specific expectations for clinical and other professional venues can be found in the appropriate handbook. You are responsible for reviewing and acting in accordance with the policies and procedures found in the following sources, including the following topics: Professionalism, Academic Integrity, Accommodations for Students with Disabilities, Disruptive Behavior, Attendance, Compliance, and Progression.

- CON MSN Student Handbook: [http://nursing.msu.edu/MSN%20Programs/Handbooks/default.htm](http://nursing.msu.edu/MSN%20Programs/Handbooks/default.htm)
- MSU Spartan Life Online: [http://www.vps.msu.edu/SpLife](http://www.vps.msu.edu/SpLife)
- Information for MSU Students: [http://www.msu.edu/current/index.html](http://www.msu.edu/current/index.html)
- Academic Programs: [http://www.reg.msu.edu/AcademicPrograms](http://www.reg.msu.edu/AcademicPrograms)

Professionalism:

All graduate students at Michigan State University should be fully familiar with the Graduate Student Rights and [http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities](http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities) Responsibilities Articles (published by the Graduate School; available at University guidelines for ethical research (published by the University committee on Research Involving Human Subjects [UCRIHS]; available at [http://www.msu.edu/user/ucrihs/](http://www.msu.edu/user/ucrihs/)); The MSU Guidelines for Integrity in Research and Creative Activities, [http://grad.msu.edu/all/ris04activities.pdf](http://grad.msu.edu/all/ris04activities.pdf) and specific principles for informal conflict management, in the Graduate Student Resource Guide (published by the Graduate School; available at [http://grad.msu.edu/conflict.htm](http://grad.msu.edu/conflict.htm)).

The Graduate Student Rights and Responsibilities (GSRR) Articles address professional standards for graduate students as follows: “Each department/school and college shall communicate to graduate students, at the time of their enrollment in a degree program or course in the unit, any specific codes of professional and academic standards covering the conduct expected of them.” (Article 2.4.7). “The graduate student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards” (Article 2.3.8).

In addition to meeting academic standards included in the Academic Progression Guidelines, students and faculty in the Doctoral Program in Nursing have shared responsibility for adherence to the professional standards referred to the Doctoral Student Handbook of the CON.

Professional expectations are rooted in the maintenance of high quality working relationships with faculty, peers, research participants, staff, and all others with whom the graduate student interacts. Aspects of high quality working relationships that are addressed in the GSSR as shared faculty- student responsibilities include: mutual respect, understanding, and dedication to the education process (2.1.2); maintenance of a collegial atmosphere (2.3.7); and mutual trust and civility (2.3.1.2).

University Policies:

**Academic Honesty:** Article 2.3.3 of the Academic Freedom Report states: “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” In addition, the College of Nursing adheres to the policies on academic honesty specified in General Student Regulation 1.0, Protection of Scholarship and Grades; the all- University Policy on Integrity of Scholarship and Grade; and Ordinance 17.00, Examinations. (See [http://splife.studentlife.msu.edu/regulations/general-student-regulations](http://splife.studentlife.msu.edu/regulations/general-student-regulations) and/or the MSU Web site [www.msu.edu](http://www.msu.edu).)

Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are
expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com Web site to complete any course work NUR 901. Students who violate MSU rules may receive a penalty grade, including but not limited to—a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also https://www.msu.edu/unit/ombud/RegsOrdsPolicies.html).

Students engaged in scholarly activities (e.g. dissertation, scholarly projects) should follow the guidelines of scholarly writings as outlined in the Publication Manual of the American Psychological Association (most recent edition). Ethical principles ensure the accuracy of scientific and scholarly knowledge and protect intellectual rights. Principles include reporting of results, plagiarism, publication credit, sharing data, and copyright.

Students should submit papers to Turnitin Dropboxes without identifying information included in the paper (e.g. name or student number), the system will automatically show this info to faculty in your course when viewing the submission, but the information will not be retained by Turnitin.

Academic dishonesty in any form will not be tolerated in the College of Nursing. Any student involved in academic dishonesty will be reported to the Office of Academic Affairs and the Office of Student Services in the College of Nursing and a grade of 0.0 may be issued for the course.

Research Misconduct and Questionable Research Practices within the college are defined consistently with the Interim University Document on Intellectual Integrity approved by the President of Michigan State University on August 5, 1994 and revised June 29, 1995. Refer to the CON Doctoral Student Handbook.

Accommodations for students with disabilities: Students with disabilities should contact the Resource Center for Person with Disabilities to establish reasonable accommodations. For an appointment with a disability specialist, call 353-9642 (voice, 355-1293 (TTY), or visit MyProfile.rcpd.msu.edu

Disruptive behavior: Article 2.3.5 of the Academic Freedom Report (AFR) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.3.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civility." General Student Regulation 5.02 states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . . ) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

Attendance: Students whose names do not appear on the official class list for this course may not attend this class. Students who fail to attend the first four class sessions or class by the fifth day of the semester, whichever occurs first, may be dropped from the course. See the Ombudsman’s web site for a discussion of student observance of major religious holidays, student-athlete participation in athletic competition, student participation in university-approved field trips, medical excuses and a dean's drop for students who fail to attend class sessions at the beginning of the semester.

College of Nursing Policies: Professional Development Guidelines [found in the CON Student Handbook at the CON website]. Students are responsible for the information found in the CON Doctoral Student Handbook. Effective conflict management/negotiation skills are essential for navigating the graduate school experience and maintaining high quality working relationships. Specific principles for conflict are responsible for making concerted good faith efforts to resolve conflicts with others in a constructive and informal fashion, prior to proceeding to formal conflict resolution options as consistent with the GSRR statement on informal conflict resolution (Article
5.3.2). Doctoral students who have specific questions or concerns about professional standards or conflict resolution issues should consult with their Major Professor, the Director of the Doctoral Program, and/or the University Ombudsman for guidance, as appropriate.

**Course Calendar:**

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<thead>
<tr>
<th>Class/Week</th>
<th>Content</th>
<th>Readings</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>1 9/8/15</td>
<td>Course Introduction – review of Syllabus</td>
<td>Terry: Unit 1 Moran: Chp 5, Chp 6 pgs 113-124. Other readings in D2L</td>
<td>Critical Appraisal of a Research Article – due date Friday 9/18/2015 by 11:00pm</td>
</tr>
<tr>
<td>2 9/11/15</td>
<td>Introduction to SPSS Creating Data Sets Creating a Code Book Defining Variables</td>
<td>Pallant: Part I &amp; II. Sylvia Chp 1 Other readings in D2L</td>
<td>SPSS assignment # 1 – Due Friday 9/25/2015 by 11:00 pm</td>
</tr>
<tr>
<td>3 9/13/15</td>
<td>Theoretical models • Donabedian Quality Improvement Model • Structure-Process-Outcome Model • Effectiveness-Efficiency –Equity Model</td>
<td>Readings in D2L</td>
<td>Discussion Board Critical Appraisal of Literature Due – Friday 9/18/2015 11:00pm.</td>
</tr>
<tr>
<td>4 9/20/15</td>
<td>Theoretical Models continued • Logic Model • Others</td>
<td>Readings in D2L</td>
<td>Discussion Board SPSS Assignment Due Friday 9/25/2015 by 11:00 pm</td>
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<td>5 9/27/15</td>
<td>Quality Improvement vs Research evaluation models</td>
<td>Readings in D2L</td>
<td>Discussion Board</td>
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<td>6 10/4/15</td>
<td>Research Designs - Quantitative</td>
<td>Terry Chp 5 Readings in D2L</td>
<td>Discussion Board</td>
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<td>7 10/11/15</td>
<td>Research Designs - Qualitative</td>
<td>Terry Chp 6 Readings in D2L</td>
<td>Discussion Board</td>
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<td>8 Zoom/on campus 10/20/15 6 – 8 pm</td>
<td>Student Presentations of Model selection and application to project</td>
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<td>Presentations – in person or via Zoom. Power points due to Drop Box by 11:00 pm Monday, 10/19/2015</td>
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<td>9 10/25/15</td>
<td>Sampling Protection of Human rights/IRB</td>
<td>Terry Chp 8, 9 &amp; 10 Sylvia Chp 5 Readings in D2L</td>
<td>Discussion Board</td>
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<td>Data Collection &amp; Management</td>
<td>Sylvia chp 3 &amp; 4 &amp; 2015 readings in D2L</td>
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<td>10</td>
<td>11/01/15</td>
<td>Selecting an instrument/measurement tool</td>
<td>Sylvia Chp 2 Terry : Chp 11 Readings in D2L</td>
</tr>
<tr>
<td>11</td>
<td>11/8/15</td>
<td>Outcome measurement: Statistical Tests</td>
<td>Pallant Chp 6, 7, 11 &amp; 12 Sylvia Chp 7</td>
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<td>• Descriptive statistics</td>
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<td>• Graphs</td>
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<td>• Correlations</td>
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<td>• T-tests</td>
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<td>• Chi-Square</td>
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<td>• ANOVA</td>
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<td>13</td>
<td>11/22/15</td>
<td>Outcome measurement: Statistical Tests (cont)</td>
<td>Pallant Chp 16, 17 &amp; 18 Sylvia Chp 8</td>
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<td>• Selecting the appropriate statistical test</td>
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<td>14</td>
<td>11/29/15</td>
<td>Developing a Data Analysis Plan</td>
<td>Sylvia Chp 4 Readings in D2L</td>
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<tr>
<td>15</td>
<td>12/6/15</td>
<td>Work on Final Paper</td>
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<tr>
<td>16</td>
<td>12/15/15</td>
<td>Student Presentation of Final Paper</td>
<td>Final Paper Due 12/14/15 by 8:00 pm</td>
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</table>

**Additional required readings**

*See document in D2L*