UNIVERSITY OF ALBERTA COLLABORATIVE BACCALAUREATE NURSING PROGRAM

Grande Prairie Regional College
Keyano College
Red Deer College
University of Alberta

NURSING 3690 – Group A and B

YA2/YB2

Evidence-Based Research

2012-2013 COURSE OUTLINE

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August 2012

Department of Nursing Education and Health Studies
Course Outline 2011-2012
Nursing Research and Statistics 6 (0-6-0.5), UT, 100 hours, Two Terms

NOTE: Foundational research concepts (approximately 8 hours) offered in Years One and Two are important prerequisites to NURS 3690 *(see the Concept Map for Research & Statistics for the foundational research concepts to be included in the First and Second Years).* NURS 3690 is integrated with the NS 3900 and NS 3940 Learning Packages.

NURSING RESEARCH INSTRUCTOR:

Deena Honan RN, MSN
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STATISTICS INSTRUCTOR:

Dallas Sawtell (Statistics)
Office: C204
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OFFICE HOURS:

Office hours vary according to the instructor. Please consult the individual instructor for details.

PREREQUISITE/COREQUISITE:

Nursing Research & Statistics I (Fall Term)
Corequisite: NS 3900.

Nursing Research & Statistics II (Winter Term)
Corequisite: NS 3900.

REQUIRED TEXT:

Loiselle, C. & Profetto-McGrath, J. (2011). *Polit and Beck. Canadian essentials of nursing research.* (3rd ed.). Philadelphia: Lippincott.

RESOURCE MATERIALS:

LoBiondo-Wood, G., & Haber, J. (1998). Nursing research in Canada (2nd ed.). Toronto: ON.: Mosby.

JOURNALS:

Canadian Journal of Nursing Research
Clinical Nursing Research
Western Journal of Nursing Research
Evidence-Based Practice

CALENDAR DESCRIPTION:
NS 3690 6 (0-6-0.5) UT 100 Hours Two Terms

Introduction to the process of research through a comparative analysis of selected studies exemplifying different theoretical, methodological and analytical approaches. Emphasis will be on the communicability of research, the needs of the research consumer and the development of skills critical appraisal. Also included are introduction to descriptive and inferential statistics and the application of statistical methods to nursing problems.

COURSE DESCRIPTION:

Nursing Research & Statistics I

Fall Term:

Fall term will introduce the process of research through critical appraisals of selected **qualitative** studies. Emphasis will be on understanding the research process and in knowing how to critically read, analyze and begin to apply the knowledge gained from research in practice. The focus of this section of the course will include the planning phase of the qualitative research process (research problem and purpose, literature review, theoretical/conceptual frameworks, research questions, ethics of research, and research designs) and the implementing phase (population and samples, data collection, data analysis, interpretation of findings).

Nursing Research & Statistics II

Winter Term:

Winter term will introduce the process of research through critical appraisals of selected **quantitative** studies. Emphasis will be on understanding the research process and in knowing how to critically read, analyze and begin to apply the knowledge gained from research in practice. The focus of this section of the course will include the planning phase of the quantitative research process (research problem and purpose, literature review, theoretical/conceptual frameworks, research questions and hypotheses, ethics of research, and research designs) and the implementing phase (population and samples, descriptive statistics, data collection, data analysis, inferential statistics, and interpretation of findings).

CREDIT:

NS 3690 6 (both terms 0-6-0.5 in 14 weeks).
Note: Students with credit in NS 3970 and NS 4970 or NS 4960 or NS 3010 and Statistics[*3] will not receive credit for NS 3690.

CONTACT HOURS:

NS 3690 consists of three hours of research instructional time per week plus a three hour research lab and three hours of statistics instructional time per week plus a three hour statistics lab. Additional hours for independent study and group work required.

DELIVERY MODES:

The course work includes lectures, class discussions, individual and group work, in-class practice exercises and student presentations (both written and oral).

Students will participate in a number of activities to assist in meeting the objectives of the course:

1. Class Attendance

The purpose of the class time is to highlight primary concepts of the research process and to develop the student's ability to understand and critique published research through discussion of critiques. In class, essential concepts related to nursing research and statistics will be discussed. Additionally, students will have the opportunity to discuss group critiques of selected articles to assist in understanding the concepts.

2. Small Group Work

The purpose of this activity is to provide students with an opportunity to critique selected aspects of a published research study using the critiquing criteria. The instructor(s) will select various research reports which the students are asked to critique. Students are expected to read each assigned research report and answer the critiquing questions included in the course outline or as provided by the course instructor. For example, prior to the class on the planning phase of the research process, students will be expected to critique the research problem /questions, literature review, theoretical framework and hypothesis in the assigned article.

Students are encouraged to work in pairs or small groups to complete their research study critique (answer the criteria questions). During class, students will be asked to discuss and or present their evaluation of the selected aspects of the research report. Opportunities for discussion, debate and consensus will be provided in this course. Critical thinking should be emphasized throughout the process.

3. Appraising Findings from Multiple Studies

The importance of appraising findings from multiple studies related to a nursing practice issue for guiding practice will be the focus of this activity. In addition to the article(s) selected in NS 3690 for critique, students are expected to brainstorm research questions within their NS 3900 and NS 3940 tutorial classes.

COURSE OBJECTIVES:

Fall Term:

1. Describe the purpose and importance of research in nursing.
2. Describe how theory, practice and research are related.
3. Identify a question from nursing practice that can be answered by research.
4. Describe the role of nurses in research.
5. Apply critiquing criteria for the critical analysis of the following sections of a **qualitative** research report: research problem and purpose, literature review, theoretical/conceptual framework, research questions, research design, ethical components, population, sample, sampling procedures, data collection, data analysis, and interpretation of findings.
6. Compare the major characteristics, strengths and limitations of qualitative research.
7. Describe the differences between Phenomenology, Ethnography, and Grounded Theory.
8. Identify appropriate data collection methods of various qualitative designs.
9. Discuss the types, advantages, and limitations of data collection methods used in qualitative nursing research methods.
10. Differentiate data analysis methods for qualitative research.
11. Discuss the criteria for determining confirmability of findings in a qualitative study.
12. Develop a systematic approach for reading and critical appraisal of multiple published research reports in their entirety.
13. Determine the applicability of knowledge gained from research for evidence-based practice.
14. Identify the role of a nurse in promoting research activities and using knowledge from research in the practice settings.

Winter Term:

1. Review the purpose and importance of research in nursing, how theory, practice and research are related, identify questions from nursing practice that can be answered by research, and the role of nurses in research.
2. Apply critiquing criteria for the critical analysis of the following sections of a **quantitative** research report: research problem and purpose, literature review, theoretical/conceptual framework, research questions and hypotheses, variables, research design, ethical components, population, sample, sampling procedures, data collection, data analysis, descriptive and inferential statistics, and interpretation of findings.
3. Discuss the types, advantages, and limitations of data collection methods used in quantitative nursing research methods.
4. Identify the criteria for determining the validity and reliability of measurement tools.
5. Describe the four levels of measurement.
6. Identify appropriate data collection methods for various quantitative designs.
7. Differentiate data analysis methods for quantitative research.
8. Identify the purpose of and appropriateness of commonly used inferential statistics.
9. Distinguish between type I and type II errors and their effects on findings.
10. Differentiate between the meanings of statistical significance and clinical significance.

11. Develop a systematic approach for reading and critical appraisal of multiple published research reports in their entirety.
12. Determine the applicability of knowledge gained from research for evidence-based practice.
13. Identify the role of a nurse in promoting research activities and using knowledge from research in the practice settings.

TRANFERABILITY:

NS 3690 is part of the block transfer agreement with the University of Alberta in the Collaborative BScN Program. Admission to the fourth year of the Program and registration at the U of A will be contingent upon confirmation by the Faculty of Nursing that the first three years of the Program have been completed with satisfactory academic standing. For promotion to Year 4 at the U of A, a student is required to pass all previous courses and obtain a minimum cumulative GPA of 2.0 on a 4.0 point scale in the first three years of the program. If these conditions are met, the student will be granted a block transfer of work completed at GPRC to the U of A record.

GRADING CRITERIA:

Note: Please refer to the *Grande Prairie Regional College* calendar 2012-2013 for the Academic Regulations that pertain to Examinations and Examination Procedures.

Total 4-Point Equivalent Value is Translated to Final Grade

Grades for each assignment were translated into the 4-point equivalent then multiplied by the percentage of total mark for each assignment. The value of those percentages is added up to make a total. That total is converted back into the grade scale for your final grade. If you have any questions or concerns, please see your tutor. Exams can be viewed by setting up an appointment with your tutor.

Evaluation:	Date and Time	Percentage of Total Mark
Fall 2012		
Qualitative Critique Part 1		2.5%
Qualitative Data Set		2.5%
Lab Presentation		2.5%
Qualitative Critique Part 2		7.5%
Weekly Stats Assignment Part I	Weekly	10%
Research Midterm Exam		10%
Statistics Midterm Exam	Group A: Last week of class Group B: Last week of class	15%
Winter 2013		
Quantitative Critique Part 1		2.5%
Quantitative Research Problems		2.5%
Lab Presentation		2.5%
Quantitative Critique Part 2		7.5%
Weekly Stats Assignment Part II	Weekly	10%
Research Final Exam		10%
Statistics Final Exam	Group A: Last week of class Group B: Last week of class	15%
Total		**100%**

Note: Refer to the 2012-2013 GPRC calendar for further details regarding the grading policy and the progression criteria in the Bachelor of Science in Nursing program.

A grade will be assigned for each assignment using grading criteria and then based on the grade descriptors (excellent, good, satisfactory, poor). Rationale will be given as to the assigned grade.

Note: In order to pass NS 3690:

Students may receive a grade of D or D+ in an assignment or component of a course, but must have an overall grade of C- to achieve a passing grade in a nursing course.

PLEASE NOTE: The student must pass each of the statistics portion and the nursing research methods portion of the course with a minimum Grade of "C-" to receive credit for this course. If a student fails either of the stats or research portion, they will receive an "F" in NS 3690.

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	**4-point Equivalent**	**Percentage Guidelines**	**Designation**
A+	**4.0**	**90 – 100**	**EXCELLENT**
A	**4.0**	**85 – 89.9**	
A–	**3.7**	**80 – 84.9**	**VERY GOOD FIRST CLASS STANDING**
B+	**3.3**	**77 – 79.9**	
B	**3.0**	**73 – 76.9**	**GOOD**
B–	**2.7**	**70 – 72.9**	
C+	**2.3**	**67 – 69.9**	**SATISFACTORY**
C	**2.0**	**63 – 66.9**	
C –	**1.7**	**60 – 62.9**	

These are considered passing grades in Nursing courses.

These are NOT considered passing grades in Nursing courses.

D+	**1.3**	**55 – 59.9**	**POOR**
D	**1.0**	**50 – 54.9**	**MINIMAL PASS**
F	**0.0**	**0 – 49.9**	**FAIL**
WF	**0.0**	**0**	**FAIL, withdrawal after the deadline**

EXAMINATIONS:

This course includes a mid-term examination and final examination in Nursing Research and a mid-term examination and a final examination in Statistics.

STUDENT RESPONSIBILITIES AND IMPORTANT POLICIES:

Important Dates:
Information about last day to change registrations and dropping full-year courses has changed and the updates are available on the GPRC website.

Nursing Program Policies
Please refer to the *Grande Prairie Regional College* calendar and the *University of Alberta Collaborative Baccalaureate Nursing Program with Grande Prairie Regional College Student Handbook* 2012-2013 for specific nursing program policies that may pertain to this course.

Assignment Policy:
Research assignments are due at the date and time they are due in the front office and must be verified (stamped with date and time) by Nursing Office Personnel. Extensions on assignments may be granted and must be negotiated with the instructor prior to the due date and with a date specified for late submissions. Extensions will not be granted the day the assignment is due.

A penalty of one letter grade per day will be deducted from the final grade of a late assignment. For example, a paper graded at a C would receive an adjusted grated of C- if handed in one day late.

It is the responsibility of the student to ensure electronically submitted papers and assignments are delivered and retrievable to the instructor (i.e. emailing assignments). If the instructor is unable to open documents or if documents are sent in error via electronically, the assignment will be considered late and the student will have one letter grade deducted from the final grade. It is highly recommended that students ensure their assignments have been retrieved by the tutor prior to the due date and time.

In the statistics portion of the course, assignments will be handed out at the beginning of class and handed into the instructor at the end of that same class.

STATEMENT ON PLAGIARISM AND CHEATING:

We expect honesty from our students. This demands that the contribution of others be acknowledged (GPRC Calendar, 2012-2013). Penalties will be given according to the degree of the plagiarism or cheating. If you are unsure whether an action is plagiarism or not, please consult your course tutor. Cheating refers to dishonest conduct such as speaking in an exam, bringing written material not authorized by the tutor, tampering with grades, or consciously aiding another student to cheat. Please refer to your rights and responsibilities in the Grande Prairie Regional College 2012-2013 Calendar.

COURSE SCHEDULE/TENTATIVE TIMELINE:

Nursing Research 3690
Fall Class Outline
Group A
(this outline may be subject to change)

Date	Wednesday	Friday
Sept 7	No class	Chapter 1 Introduction to course
Sept 12, 14	Chapters 2 & 3 **Assignment #1 Due**	Chapters 4 & 5 Consent Forms
Sept 19, 21	Chapters 6 & 7	Chapter 8 **Assignment #2 Due**
Sept 26, 28	Chapter 10	Ethnography
Oct 3,5	Phenomenology	Grounded Theory
Oct 10, 12	Chapter 12 **LAB**	Chapter 13 & 14
Oct 17, 19	Chapter 16	Chapter 16 **Assignment #3 Due**
Oct 24, 26	Review	**Mid Term**

Nursing Research 3690
Fall Class Outline
Group B
(this outline may be subject to change)

Date	Wednesday	Friday
Oct 31, Nov 2	Chapter 1 Introduction to course	Chapters 2 & 3
Nov 7, 9	Chapters 4 & 5 Consent Forms **Assignment #1 Due**	Chapters 6 &7
Nov 14, 16	Chapters 8 **Assignment #2 Due**	Chapter 10
Nov 21, 23	Ethnography	Phenomenology
Nov 28, 30	Grounded Theory **LAB**	Chapter 12
Dec 5, 7	Chapter 13 & 14	Chapter 16 **Assignment #3**
Dec 12, 14	Chapter 16 Review	**Mid Term**

Nursing Research 3690
Winter Class Outline
Group A
(this outline may be subject to change)

Date	Wednesday	Friday
Jan 9, 11	Chapter 1 & 2 Introduction to course	Chapters 3, 4, and 5
Jan 16, 18	Chapters 6 & 7 **Assignment #1 Due**	Chapter 8
Jan 23, 25	Chapter 9 **Assignment #2 Due**	Chapter 9
Jan 30, Feb 1	Chapters 11 & 12	Chapter 12
Feb 6, 8	Chapter 13 **LAB**	Chapter 14
Feb 13, 15	Chapter 15	Chapter 15 **Assignment #3 Due**
Feb 20, 22	No Classes Winter Break	
Feb 27, Mar 1	Review	**Final Exam**

Nursing Research 3690
Winter Class Outline
Group B
(this outline may be subject to change)

Date	Wednesday	Friday
March 6, 8	Chapter 1 & 2 Introduction to course	Chapters 3,4, and 5
Mar 13, 15	Chapters 6 & 7 **Assignment #1 Due**	Chapter 8
Mar 20, 22	Chapter 9 **Assignment #2 Due**	Chapter 9
Mar 27	Chapters 11 & 12	No Class Good Friday
Apr 3, 5	Chapter 13 **LAB**	Chapter 14
Apr 10, 12	Chapter 15	Chapter 15 **Assignment #3 Due**
Apr 17, 19	Review	**Final Exam**

FALL

Statistics
What is Statistics? **Random Samples** **Introduction to Experimental Design**
Bar Graphs, Circle Graphs, and Time-Series Graphs **Frequency Distributions, Histograms, and Related Topics** **Stem and Leaf Displays**
Measures of Central Tendency: Mode, Median, and Mean **Measures of Variation** **Mean and Standard Deviation of Grouped Data**
What is Probability? **Some Probability Rules—Compound Events** **Trees and Counting Techniques**
Introduction to Random Variables and Probability Distributions **Binomial Probabilities** **Additional Properties of Binomial distribution**
Graphs of Normal Probability Distributions **Standard Units and Areas Under the Standard Normal Distribution** **Areas Under Any Normal Curve**

WINTER

Statistics
Sampling Distributions The Central Limit Theorem
Estimating μ When σ Is Known Estimating μ When σ Is Unknown
Introduction to statistical Tests Testing the Mean μ Tests Involving Paired Differences (Dependent Samples) Testing The Difference of Two Means
Scatter Diagrams and Linear Correlation Linear Regression and the Coefficient of Determination Inferences for Correlation and Regression Multiple Regression
Inferences Using the Chi-Square Distribution: Overview of the Chi-Square Distribution Chi-Square: Tests of Independence Chi-Square: Goodness of Fit
Inferences Using the *F* Distribution Testing Two Variances One-way ANOVA: Comparing Several Sample Means

These Outlines may be subject to change.