



**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

2010-2011 COURSE OUTLINE

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Department of Nursing Education and Health Studies
Course Outline 2010-2011
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 INSTRUCTORS:

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STATISTICS INSTRUCTOR:

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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:

C.A.R.N.A. (1997, June). Nursing research dissemination and utilization: A background paper. Edmonton: Author. http://nt_web/Archived%20%20Pages/researchdissem.htm.

Brown, S.J. (1999). Knowledge for health care practice: A guide to using research evidence. Toronto: Saunders.

Burns, N., & Grove, S.K. (1995). Understanding nursing research. Toronto: W.B. Saunders.

Davis, B., & Logan, J. (1997). Reading research: A user-friendly guide for nurses and other health professionals (2nd ed.). Ottawa: Canadian Nurses Association.

Dempsey, P.A., & Dempsey, A.D. (2000). Using nursing research: Process, critical evaluation and utilization (5th ed.). Philadelphia: Lippincott.

Fain, J.A. (1999). Reading, understanding and applying nursing research: A text and workbook. Philadelphia: F.A. Davis.

Light, R.J., & Pillimer, D.B. (1984). Summing up: The science of reviewing research. Cambridge: Harvard University Press.

LoBiondo-Wood, G., & Haber, J. (1998). Nursing research: Methods, critical appraisal, and utilization (4th ed.). St. Louis: Mosby.

Morse, J., & Field, P. (1995). Qualitative research methods for health professionals (2nd ed.). Thousand Oaks: Sage Publications.

Nieswiodomy, R.M. (1998). Foundations of nursing research (3rd ed.). Stamford, CT.: Appleton & Lang.

*Norman, G.R., & Streiner, D.L. (1999). PDQ Statistics (2nd ed.). Toronto: B.C. Decker Inc.

Polit, D., & Hungler, B. (1999). Nursing research. Principles and methods (6th ed.). Philadelphia: Lippincott.

Rose-Grippa, K., & Gorney-Moreno, M. (1998). Study guide: Nursing research (4th ed.). St. Louis: Mosby.

Talbot, L.A. (1995). Principles and practice of nursing research. Toronto: 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:**

Introduction to the process of research through critical appraisals of selected quantitative and 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 course will be the planning phase of the research process which includes: research problem and purpose, literature review, theoretical/conceptual frameworks, variables, research questions and hypotheses, ethics of research, research designs

Nursing Research & Statistics II**Winter Term:**

Students will continue to develop their skills to critically read, analyze and begin to use knowledge gained from research in their practice. The focus of this course is on the implementing phase (population and samples, descriptive statistics, data collection, data analysis, interpretation of findings). Students will also examine trends and issues in developing evidenced-based practice for the profession of nursing. Also included in this course are inferential statistics.

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 research report: research problem and purpose, literature review, theoretical/conceptual framework, variables, research questions and hypotheses, research design, ethical components, population, sample, and sampling procedures.
6. Compare the major characteristics, strengths and limitations of quantitative and qualitative research.
7. Explain the meaning of internal and external validity of research.
8. Develop a systematic approach for reading and critical analysis of selected components of published research.

Winter Term:

Discuss population, sample, and sampling procedures.

2. Discuss the types, advantages, and limitations of data collection methods used in both quantitative and qualitative nursing research methods.
3. Identify the criteria for determining the validity and reliability of measurement tools.
4. Describe the four levels of measurement.
5. State the purpose of descriptive statistics.
6. Critically analyze the descriptive statistics used in published reports.
7. Discuss the criteria for determining confirmability of findings in a qualitative study.
8. Identify appropriate data collection methods for various qualitative and quantitative designs.
9. Differentiate data analysis methods for both quantitative and qualitative research.
10. Identify the purpose of and appropriateness of commonly used inferential statistics.
11. Distinguish between type I and type II errors and their effects on findings.
12. Differentiate between the meanings of statistical significance and clinical significance.
13. Apply critiquing criteria for an analysis of a complete research report.
14. Develop a systematic approach for reading and critical appraisal of multiple published research reports in their entirety.
15. Determine the applicability of knowledge gained from research for evidence-based practice.
16. Identify the role of a nurse in promoting research activities and using knowledge from research in the practice settings.
17. Discuss issues including barriers and facilitating factors influencing the advancement of nursing research and evidence-based practice

TRANSFERABILITY:

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:**EVALUATION FOR NS 3690****FALL 2010****1. Part I: Critique of the Research Value: 10% of Final Grade**

Students will critique an instructor chosen research report (either qualitative or quantitative) using the criteria outlined in the specified text boxes and information from seminars and lectures. APA writing format is to be used.

The critique will focus on the following topics:

1. The Research Problem (p. 127, Box 6.1)
2. The Research Question or Hypotheses (p. 127, Box 6.1)
3. The Literature Review, (p. 147, Box 7.1)
4. The Theoretical Framework if applicable (p. 165, Box 8.1)

Total length of the critique will be a maximum of 1000 words.

Please refer to the Grading Guide which is located within the course outline for further details.

Due Date: Group A: October 8, 2010 at 1300

Group B: November 26, 2010 at 1300

2. Two Computer Labs plus Weekly Statistics Assignments: Value: 10% of Final Grade

These assignments, in a worksheet format, will be completed weekly.

The raw scores for each assignment will be added and given a total percentage and grade determined.

3. Mid-Term Examinations:**Part I: Statistical Concepts:****Value 15% of Final Grade****Group A:****Date: Last day of class****Time: During class time****Place: Designated Classroom****Group B:****Date: Last day of class****Time: During class time****Place: Designated Classroom****Part II: Nursing Research Concepts:****Value 15% of Final Grade**

Examination questions will include information from labs, seminars, lectures and the textbook. This exam will be composed of multiple choice and short answer questions. **Please refer to the Examination Policies located in your Student Handbook.**

Group A:**Date: October 22th, 2010****Time: During class time****Place: A314****Group B:****Date: TBA (during exam week)****Time: TBA****Place: Designated classroom or gym**

EVALUATION FOR NS 3690**Winter 2011****1. Critique of the Research Part II****Value: 10% of Final Grade**

Students will critique the **same** research report (qualitative or quantitative) from the fall semester using the criteria outlined in the specific text boxes and information from seminars/lectures.

APA writing format is to be used.

Students will critique the following topics:

1. Population and Sampling
 - i. (p. 271, either Box 12.1 for quantitative or Box 12.2 for qualitative)
2. Data Collection
 - i. (p. 309, Box 13.6)
3. Evidence Ethical Review of the Study and Protection of Human Rights
 - i. (p. 103, Box 5.2)
4. Data Analysis
 - i. (Quantitative, p. 380, Box 15.2; Qualitative, p. 411, Box 16.2)
5. Reliability and Validity, Trustworthiness of Study
 - i. (p. 331, Quantitative, Box 14.1; Qualitative, Box 14.2)
6. Interpretation and Discussion of Findings (include implications for nursing practice)
 - i. (p. 435, Box 17.1)
7. Overall evaluation of the study (recommendations for future use)

Total length of the critique will be a maximum of 1000 words.

Please refer to the Grading Guide which is located at the back of the course outline for further details.

Due Date: Group A: February 4, 2011 at 1300

Group B: April 1, 2011 at 1300

2. Two Computer Labs plus Weekly Statistics Assignments: Value: 10% of Final Grade.

These assignments, in a worksheet format, will be completed weekly,

The raw scores for each assignment will be added and given a total percentage and a grade determined.

3. Final Examination:

Part I: Statistical Concepts:

Value 15% of Final Grade

Group A:

Date: Last day of class

Time: During class time

Place: Designated classroom

Group B:

Date: Last day of class

Time: During class time

Place: Designated classroom

Part II: Nursing Research Concepts:

Value 15% of Final Grade

Examination questions will include information from labs, seminars, lectures and the textbook. This exam will be composed of multiple choice and short answer questions. **Please refer to the Examination Policies located in your Student Handbook.**

Group A

Date: February 18, 2011

Time: During class time

Place: F207

Group B

Date: TBA (during exam week)

Time: TBA

Place: Designated classroom or gym

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 are added up to make a total. That total was converted back into the grade scale to receive 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 2010		
Critique Part I	Group A: October 8 Group B: November 26	10%
Weekly Stats Assignment Part I	Weekly	10%
Research Midterm Exam	Group A: October 22 Group B: TBA (during exam week)	15%
Statistics Midterm Exam	Group A: The last day of class Group B: The last day of class	15%
Winter 2011		
Critique Part II	Group A: February 4 Group B: April 1	10%
Weekly Stats Assignment Part II	Weekly	10%
Research Final Exam	Group A: February 18 Group B: TBA (during exam week)	15%
Statistics Final Exam	Group A: Last day of class Group B: Last day of class	15%
Total		100%

Note: Refer to the 2010-2011 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 2010-2011* 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 grade 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, 2010-2011). 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 2010-2011 Calendar.

COURSE SCHEDULE:

LABS
FALL 2010
Group A and Group B
(6.0 hours total)
Dates and Times of Labs TBA

The focus of these labs is:

Statistics: understanding the purpose, use, and interpretation of descriptive statistics (*frequency distributions, measures of central tendency and variability, standard scores, levels of measurement, reading descriptive tables and graphs*) for quantitative nursing research.

Nursing Research: A nursing clinical situation related to one of the scenarios in NS 3900 will be provided. Students will describe the research phenomena, develop a research question, identify a population to study, and develop a quantitative research method to examine the research question.

LABS
Winter 2011
Group A and Group B
(6.0 hours total)

Dates and Times of Labs TBA

Statistics Labs: Inferential Statistics

The focus is on understanding the purpose, use, and interpretation of inferential statistics (*t-Tests, ANOVA, Chi Square, Regression Analysis, Factor Analysis*) for quantitative nursing research.

Nursing Research Lab: Qualitative Analysis

1. Students will review transcripts of a tape recorded interviews, provided by the instructor.
2. Students will perform a content analysis on data in the transcript provided and begin to thematically analyze it.