

**GS/NURS 5300A 3.0 Quantitative Research Methods in Nursing Science
Course Outline – Winter 2020**

Course Director: Dr. Danielle Dunwoody, PhD, RN (section O)

A. Calendar Course Description

This online course focuses on acquisition and application of fundamental concepts, methods, and procedures of quantitative nursing research required to develop a research proposal; including but not limited to: developing researchable questions, designing research selecting appropriate methods and analysis strategies.

Co-requisite or prerequisite NURS 5100 6.0 or with permission of the Course Director.

B. Expanded Course Description

This course will enhance the student's knowledge in quantitative research methodology, one of the multiple ways of knowing in nursing. The student will develop the skills required to develop a research proposal using quantitative research methods by completing key steps in this process.

By the end of this course, the student will be able to:

- formulate researchable questions and hypotheses;
- understand the relationship between theory and research;
- synthesize current literature review pertaining to the research questions;
- articulate the linkages between the research question and study design;
- compare and contrast various quantitative research designs;
- understand threats to the internal validity of quantitative research designs and methods to reduce such threats;
- identify appropriate data collection methods, including validity and reliability of data collections instruments; and
- demonstrate knowledge in a selected number of intermediate data analyses methods, such as multiple regression, ANOVA, and RM-ANOVA.

This is an Internet course and students are required to regularly access Moodle and their yorku.ca email account. Note that email communication about the course should be via your yorku.ca email. Access to Moodle requires a Passport York login and password. If you have managed to obtain a copy of this outline, but do not yet have a Passport York account, click on <http://www.yorku.ca/computing/students/accounts/passportyork.html> to set one up. To access Moodle, click on <http://moodle.yorku.ca> and remember to join the course so you can obtain materials and start posting.

C. Progress Through the Course

Contact Information:

- Room: 357 HNES Building, Keele Campus, York University
- Tel: (416) 736-2100, ext. 33255; Fax: (416) 736-5714; Email: ddunwood@yorku.ca

I will be online to read discussions, check e-mail, and provide feedback at various times From Monday to Thursday, and not on the weekends. I commit to checking the course Moodle site a minimum of two times during the week (Monday-Thursday). I am usually quick to respond to student questions, within 24 hours. **Please note the course modules will be open for discussion postings Mondays to Fridays (midnight).**

I will review each week's postings asap within a week, and make comments, if there are errors. I will post answers to the questions after the week has ended. Also all postings are due at the end of Fridays, and all assignments will be due on SUNDAYS at midnight EXCEPT WHERE INDICATED IN TABLE, the final will be due on April 10th, one week after the last class. NO EXTENSIONS FOR ASSIGNMENTS.

Please also note that there is one scheduled class on March 10th, 2020 from 6-8pm.

This course is 3.0 credits which means that if you were on campus then you would have 12 weeks of 3 hour classes, or 36 hours total in seminar/classroom settings. In addition, the rule of thumb is that over a semester you need another 2-3 hours *per classroom hour* to complete readings, assignments, and other details related to a course.

This course is divided into FIVE Modules, 2-3 weeks are spent on each module. There are articles and guiding questions for each module. I have also created PowerPoints for each relevant chapter from the textbook. This is a very manageable course, if you stay on top of the readings and discussions. You will need about 7 hours a week for this course.

Much of the discussion that would take place in a seminar has to take place online, so you are expected to participate regularly in online discussions to gain as much as you can from the course. We will begin these discussions on January 6th, so that you have an idea how to interact online. I have found, and student themselves tell me, that checking in most days (so reading postings from other students regularly) and also responding at least 3 times per week tends to keep the workload manageable and helps students get the most out of the course. It is important that you plan your time and are prepared to spend the needed hours to complete the work to the best of your ability. **It is not a good idea to be submitting on a Friday for the first time on the discussion items, as you will earn a 0 for that week.**

The course has been organized in a way that helps you build on knowledge and skills as you move through the modules. You are expected to have successfully completed an undergraduate research course and to have some familiarity with statistics (e.g., an undergraduate statistics course, or an applied course such as NURS 2300 at York), but I recognize that it may have been some time ago. Therefore, the text readings and additional material posted on the course Moodle website include information about basic quantitative research as well as the graduate level work. However, we cannot spend time reviewing material you are supposed to know if it is a detriment to engaging with the graduate level work.

You'll find that you have readings for each week and there are learning activities associated with the readings which involve dialogue with your group members. These activities will contribute to your understanding and will increase your knowledge and confidence so that you will be ready to tackle the

graded assignments. Don't be shy, participate as often as possible, and enjoy the feeling at the end of the semester when you realize how much you have learned! THIS IS AN INDEPENDENT STUDY COURSE, if you require assistance from me, please let me know, and I will call you or sent up a meeting time.

D. Resources

Required text.

Polit, D.F. and Beck, C.T. (2017) *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 10th Edition, Wolters Kluwer Health, Philadelphia, 784 p.
<https://doi.org/10.1016/j.iccn.2015.01.005>

You can purchase a digital copy, which you can use on your phone, tablet or computer from the publisher for \$72, which is 30% reduction from a hard copy at a website.

PLEASE PURCHASE FROM AMAZON IF YOU WANT A HARD COPY

Recommended text.

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

PLEASE PURCHASE FROM AMAZON

Obtaining articles. (N.B. all articles are available online through York's library)

You can obtain a copy of the articles by:

- Go to <http://www.library.yorku.ca/ccm/jsp/homepage.jsp>
- Under Title Quick Search, type in the name of the journal (e.g., Journal of Nursing Scholarship), click on eResources, and then Go.
- Click on one of the resources that include the year you are looking for, e.g., v.31, 1999 - [Blackwell Journals].
- You will then need to sign in when accessing from home (Passport York or library number).
- Click on the year you want, e.g., 2008, and then the required volume and issue, e.g., Volume 40, Issue 2.
- Scroll down to find authors' names (Rew, Grady, Whittaker, & Bowman) and click on PDF version; you can then print the article (you also can save the article to your own computer or USB key which I recommend you do).

Required Articles for Online Discussion

Cossette, S., Frasure-Smith, N., Robert, M., Chouinard, M-C., Juneau, M., Guertin, M-C., Cournoyer, A., Mailhot, T., & Kayser, J. W. A pilot randomized trial of a smoking cessation nursing intervention in cardiac patients after hospital discharge. *Canadian Journal of Cardiovascular Nursing*, 22(4):16-26. (published February 2013).

- Covell, C., L., Neiterman, E., & Bourgeault, I.L. (2014). A scoping review of the literature on internationally educated nurses in Canada: Mapping a research agenda. *Canadian Journal of Nursing Research, 46*(3), 26-45.
- Creamer, A., M., Mill, J., Austin, W., & O'Brien, B. (2014). Canadian nurse practitioners' therapeutic commitment to persons with mental illness. *Canadian Journal of Nursing Research, 46*(4), 13-32.
- El-Masri, M., M., Omar, A., & Groh, E., M. (2015). Evaluating the effectiveness of a nurse practitioner-led outreach program for long-term care homes. *Canadian Journal of Nursing Research, 47*(3), 39-55.
- Héon, M., Goulet, C., Garofalo, C., Nuyt, A., M., & Levy, E. (2016). An intervention to promote breast milk production in mothers of preterm infants. *Western Journal of Nursing Research, 38*(5), 529-552.
- Koopman, W., J., LeBlanc, N., Fowler, S., Nicolle, M., W., & Hulley, D. (2016). *Canadian Journal of Neuroscience Nursing, 38*(1), 56-64.
- Newman, K., Doran, D., & Nagle, L.M. (2014). The relation of critical care nurses' information-seeking behavior with perception of personal control, training, and non-routineness of the task. *Dynamics, 25*(1), 13-18.
- LePage, M., Dumas, L., & Saint-Pierre, C. (2015). Teaching smoking cessation to future nurses: Quebec educators' beliefs. *Western Journal of Nursing Research, 37*(3), 376-393.
- Ortiz, M.,M., Carr, E., & Dikareva, A. (2014). An integrative review of the literature on pain management barriers: Implications for the Canadian clinical context. *Canadian Journal of Nursing Research, 46*(3), 65-93.
- Sidani, S., & Doran, D.I. (2014). Development and validation of a self-care ability measure. *Canadian Journal of Nursing Research, 46*(1), 11-25.
- Wong CA, Cummings G & Ducharme L. (2013). The relationship between nursing leadership and patient outcomes: A systematic review update. *Journal of Nursing Management, 21*, 709-724.
- Yeh, H-Y., Ma, W-F., Huang, J-L., Hsueh, K-C., & Chiang, L-C. (2016). Evaluating the effectiveness of a family empowerment program on family function and pulmonary function of children with asthma: A randomized control trial. *International Journal of Nursing Studies, 60*, 133-144.

Additional Material

- Giddings, L. S., & Grant, B. M. (2007). A Trojan horse for positivism? A critique of mixed methods research. *Advances in Nursing Science, 30*(1), 52-60. Retrieved from <http://www.advancesinnursingscience.com>

- Jones, A., & Bugge, C. (2006). Improving understanding and rigour through triangulation: An exemplar based on patient participation in interaction. *Journal of Advanced Nursing*, 55(5), 612-621. doi:10.1111/j.1365-2648.2006.03953.x
- Owen, S. V. (2005). The significance of significance [Editorial]. *Research in Nursing & Health*, 28(4), 281-282. doi:10.1002/nur.20081
- Serlin, R. C., Ameringer, S., & Ward, S. E. (2006). A note on “The significance of significance” [Letter to the Editor]. *Research in Nursing & Health*, 29(2), 166-167. doi:10.1002/nur.20120

E. Evaluation

There are three aspects to evaluation in this course: online discussions and written, individual assignments and one group data analysis assignment. You will read assigned articles and chapters in your required text to inform online discussion within 5 modules.

I DO NOT GIVE EXTENSIONS, SO PLAN YOUR TIME.

Evaluation Strategy	Due Date	Percentage of Grade
1. Online Discussion	During weeks 2-12, no postings on Weeks 1 and 9	20% (total)
2. Individual Written Work		50% (total)
(A) Research Proposal		10.0%
▪ Draft Part One	▪ Sunday Feb 2nd, 2020 (end of week 4)	15.0%
▪ Draft Part Two	▪ Sunday March 8 th , 2020 (end of week 8)	10.0%
▪ Detailed Statistical Analysis Plan	▪ Sunday March 22nd, 2020 (end of week 10)	15%
▪ Final Research Proposal	▪ Friday April 10 th , 2020 <u>at 430pm</u>	
(B) Quiz –Weeks 1 to 6 Content	Monday February 24th, 2020 (week 7 beginning) 9-11am,online	10%
(C) Own Data File and Analysis	Sunday March 16th, 2020 (start of week 10)	10%
(D) Study Data File and Analysis-see Practice.sav file	April 3rd, 2020 (end of week 12 at <u>midnight</u>)	10%

1. Online Discussion (20% total)

Discussion about topics will take place online within discussion threads to answer the questions posted for each week by the Course Director. I have placed you into groups of 3-4 students because it will be easier for you to interact in smaller groups rather than as a whole class. Your group will interact together for online discussion. I will respond to each group separately during the week and may post an overall comment to all groups at the end of the week. You are welcome to *read* postings in any group, but you can only make a post within your own group. If you wish to change groups at the **beginning** of the course, e.g., because you know other students and want to work with them, please obtain agreement of a student in the other group to switch with you and let the Course Director know within the first week. Both students must agree to the switch. Grading for online discussion starts in week 2, so it is imperative that groups are finalized by the end of week 1. Students may *not* change groups after week 1 unless under exceptional circumstances.

The course begins on January 6th, 2020

Online participation is critical to your learning because knowledge comes through the debate that occurs in scholarly dialogue. Scholarly dialogue means reflective and critical discussion in a safe and supportive environment. Students are required to review and respond to discussion every week by posting a

substantive contribution which is supported with reference to assigned readings or other relevant course resources. Students are also responsible for posting questions to their group, critiquing points made by other students, and fielding questions posed to them. Please see the *Online Discussion Tips* file posted on the course Moodle site for further information about online postings, general types of questions and feedback that might be appropriate, and specific examples for online discussion.

The Course Director will post a question(s) in each week's forum for each separate group, but students should start the discussion topics. You will find all of the questions in each module on the course Moodle site, so you can read ahead of time and plan your work if you wish. Please answer the questions in such a way as to engage in discussion and present alternate views.

Marks are assigned 10 times during the course: weekly from weeks 2-12. Grades will be based on the criteria in **Table 1**; maximum score each time is 8. Marks will be averaged and computed out of 20. If you want to discuss your mark and/or the feedback at any time, please contact the Course Director via York e-mail.

2A. Research Proposal (50% total)

The Research Proposal is the major assignment for this course and covers what you have learned about quantitative research methods. The goals of this assignment are for you to (a) learn about the research process and (b) gain an understanding of project development. There are four parts to this assignment, as you build your knowledge incrementally to a final product, each in APA format: (i) Draft Part One, a 4 page draft; (ii) Draft Part Two, another 4 page draft but with a different focus than Part One, with (iii) a detailed statistical analysis plan; and (iv) a written Final Research Proposal (FRP) which will be double-spaced, 15 pages maximum (excluding title and reference pages). Please see **Table 2** for the grading criteria for the FRP.

Start early, that means Week 2, not Week 4, by choosing a topic of interest and work on your proposal throughout the course. You are encouraged to pick a topic that you have a genuine interest in and to continue working with this phenomenon of interest in your *GS/NURS 5200 Qualitative Research Methods in Nursing Research* course. Keeping the same phenomenon for BOTH courses will allow you to explore how the different paradigms answer questions about a similar phenomenon and will help you to stay focused on one area of interest, but it is not mandatory.

Remember though that this is not an actual study you will be undertaking: it is an assignment for a course in your MScN program, you can take NURS 5700 which will continue with these concepts and you can then analyze your detailed statistical analysis plan, which is one of the assignments for this current course.

You are asked to design a reasonable study that flows coherently from area of interest through all the aspects of a study. A reader should be able to tell from your purpose just what you will be doing in the study; the hypotheses should clearly flow from the literature review and theoretical framework; your design should allow you to answer the questions; the data analysis should ensure all hypotheses are answered; and so on.

So, while this assignment *may* have some basis in your reality, it must meet all the requirements of the assignment, and choosing one of these three designs: **correlational/interrelational, quasi-experimental, or true experimental study**. The study you design for this assignment may not be feasible in your potential site and you may need to just pretend it is if you insist on keeping your site in mind, e.g., to allow for sufficient numbers of subjects.

Do not try to ‘run before you can walk’ in this assignment, i.e., do not attempt to tackle very complex issues when you are just learning. The really complex issues in nursing need very complex designs and you are too new to be designing research studies to be able to think through all the possibilities with really complex designs. When you try to do too much then there are many problems, e.g., with validity, and you risk having your proposal marked down, e.g., for not being feasible as an experimental study. It is better for you to concentrate on less complicated studies while you learn so you can complete quality work that matches your expected knowledge at this graduate MScN level.

The drafts provide you with opportunities to lay out your preliminary thinking about the final proposal and to obtain detailed feedback from the Course Director to ensure you are on the right track. Therefore, you must submit *substantive* work, a real draft and not just your preliminary plans around what you *might* do. You should use APA format for both drafts, including a cover page and page numbering. Please include appropriate references in the body of each draft and also include a properly formatted reference list. The drafts should be double-spaced and no more than 4 pages each, excluding the cover page and the reference list. Please follow the order and components laid out for the FRP. You should use the headings in the grading rubric for your final proposal as a way of organizing your drafts. It will help ensure you cover the required areas and will provide you with a good start for your FRP. In each draft, you will describe an overview of your plan with a focus on specific areas (see below) and the Course Director will evaluate the drafts for feasibility and fit to the identified problem.

There is no grading rubric for the drafts, but the rubric for the FRP is a good guide to the areas that should be covered in the drafts. However, marking will reflect the early stage of development for the drafts, rather than the detail required in the full proposal. Grades will be based on congruency of the plan, as well as feasibility of the proposed plan. You need to show what you are going to do, why it needs done, and how you plan to do it. The detailed response you receive will provide you with direction for the final proposal.

Draft part one. (10.0%; 10.0/50)

In Part One, you will draft your plan for only the following areas: 1) **title** 2) **introduction** 3) **literature review** 4) **statement of purpose** 5) **theoretical framework** 6) **research question; and** 7) **study hypothesis**. You will have covered all of these topics in Module One of the course. You will need to start working on this assignment early in the course so you can find literature about your topic of interest and also identify a suitable theoretical framework. However, you will continue to deepen your understanding as you prepare for your FRP and more detail will be expected in the FRP, e.g., you will likely include more references in your FRP than you had in your draft.

The draft must be submitted to the Course Director by 11.55pm EST on February 2nd, 2020 by e-mail.

NOTE: Even though you submit assignments through Moodle, it is helpful in an online course if you name your file in a consistent format. For this draft, please name your file ‘First name Surname initial Part One’, e.g., ‘Danielle D Part One’ rather than everyone calling their file ‘draft’ or some variation. Finally, choose a relevant and interesting title for your project: do not simply call it ‘Research Proposal Assignment’ - I should be able to tell what your study is about just from reading your title. Remember to save as a ‘doc’ file and **not ‘docx.’**

Draft part two. (15.0%; 15.0/50)

Part Two builds on your Part One draft, but covers different topics. In Part Two, you will lay out your ideas for the FRP in respect to only the following areas: 1) **research design; 2) data collection tools**

and 3) procedures; 4) sampling strategy; 5) ethics; 6) statistical analyses (this will be a separate document 2B, worth a separate 10%, but keep heading in the draft of part two but just indicate see separate document); and 7) evidence-based contribution and 8) conclusion.

Do **not** include a copy of the data collection tools with this draft, **except** for the demographic form. Do **not** include the consent form with this draft. You will have covered all of these topics except data analysis in Modules 2 through 4. You will need to consider material from Module 5 as you plan your proposed analysis, but as noted before you are expected to have previously completed undergraduate courses that covered basic analysis, so the material should not be totally new.

In the introduction to this assignment, you will need to restate the research question and study hypotheses that you identified in Part One so I can identify how the research design etc. fit with the intent of your proposed study. If you need to modify your research question and hypotheses based on feedback for Part One, then please use the new, modified version in Part Two.

The draft must be submitted to the Course Director by 11.55pm EST on March 8th, 2020 by e-mail.

NOTE: For this draft, please name your file 'First name Surname initial Part Two', e.g., 'Danielle D Part Two.' Remember to save as a 'doc' file and **not** 'docx.'

Detailed Data Analysis Plan for your Proposal (10%;10/50)

You will create a detailed statistical analysis plan for your research questions, and give the rationale for each suggested analysis e.g. rationale for doing a t-test or running means and standard deviations. Due to the Course Director by 11.55pm EST on March 22nd, 2020 by e-mail.

Final research proposal. (20%; 20/50)

You are now putting together Part One, Part Two with the detailed analysis plan, the demographic survey and any other surveys or checklists you are using, consent form, recruitment flyer etc...see below for additional details.

Please review the appropriate module notes and course readings as you work on each area to ensure you understand the relevant issues. The project plan (FRP) must be submitted to the Course Director by **430pm** EST on Friday April 10th, 2020 in the assignment section for the course on Moodle. Please name your file 'First name Surname initial FRP', e.g., 'Danielle D FRP.' Note that your proposal is to include:

- **Title:** Short, descriptive, gives the reader a clear idea of your topic.
- **Introduction:** Include a statement of the problem and describe how the problem is relevant to nursing practice, education, or administration.
- **Literature Review:** Not as comprehensive as would be for a real proposal, but need to educate the reader about the problem by identifying the gaps and inconsistencies in the scholarly literature about your phenomenon/topic of interest. Describe other studies conducted on the topic and compare/contrast them to highlight and explain contradictory results. Literature should be no more than 10 years old and preferably from 2009 on. Focus on using primary sources, so do not 'cite.' References should relate directly to the problem under study and provide a rationale for the research question and hypothesis. Discuss the implications for the problem under study - see text for synthesis of critique of each source of information/more details on most relevant sources and refer to tables noted for Module 1. Please correct anything from Part One.

NOTE: Do not read too many articles as you prepare for the paper or include too many references in this project. Approximately 15-20 references in total should be sufficient and 25 is the maximum. You should have one or two about the theory you choose; one for each instrument you use to show reliability and validity; and the rest should be concerned with the literature review about the topic, previous use of instruments, and so on. Remember that your literature review will not be as comprehensive as it would be for a real proposal.

- **Statement of Purpose:** Include variables, sample, setting.
- **Theoretical Framework:** Clearly, but briefly, articulate the theory that guides your research and show how this theoretical perspective guides your plan, e.g., in selecting the variables and how they will be measured, or in developing content and format for an intervention. Can be a grand theory (e.g., Orem), middle-range (e.g., Mishel's Uncertainty in Illness), or micro theory (e.g., Women's Anger).

NOTE: Recall that paradigms direct a researcher and the positivist paradigm is more closely aligned with quantitative research. You may notice that the theory you currently use in your practice is not a good fit for a quantitative study - be careful that you do not try to force a fit between a theory and this study. Your chosen theory for this proposal must be appropriate for the research problem and must be able to allow a quantitative design. Be sure to use the Boxes in chap. 6 of the text to help you ensure your chosen theory is appropriate for the research problem and clearly links to all aspects of the proposed study.

- **Research Question:** Propose one research question derived from the literature review that identifies the key study variables, the relationships among them, and the population under study. Must be 3 study variables, not including demographic variables, e.g., 1 independent variable (IV) and 2 dependent variables (DVs) in an intervention study (remember that an IV could be 2 groups that are compared across DVs).
- **Study Hypothesis:** Need at least one hypothesis derived from the literature review, but must use all 3 study variables. A complex hypothesis may be possible, i.e., all 3 variables are used in a single hypothesis. Or you may decide on multiple hypotheses, e.g., one hypothesis about how the IV is expected to affect the first DV, and another hypothesis in regards to the second DV. Must explain the anticipated outcome of the study.
- **Research Design:** Propose one appropriate quantitative research design that addresses all hypotheses. **Must** be experimental (quasi- or 'true' experiment) or correlation/ interrelational; a descriptive/exploratory study would not be adequate. Explain how the specific design will be useful in answering all hypotheses. Consider and discuss threats to internal and external validity.

NOTE: Remember that the design must be chosen with the sample and measurement in mind. You also need to consider the issue of threats to validity of the study design. Think about the kinds of control you can build into the design that will minimize threats. Table 8.2 in the course text will be useful as you consider the most appropriate design for your proposed study. In addition, Table 8.5 offers suggestions about experimental designs. Boxes 10.1 and 11.1 of the course text might be useful as a critiquing tool of your own work.

- **Data Collection Tools and Procedures:** Describe study procedures, including how data will be collected, who will collect data, and what training will be given to data collectors. Describe content, purpose, reliability, and validity for each measure (tool), as well as why each is proposed. Use

established measures only (ones that been used in published research and have reliability and validity evidence), except for the demographic sheet. Develop a demographic sheet that includes age and gender, as well as other appropriate variables. Consider what you really need to know about the subjects and be focused in the questions you ask. You should put a copy of the data collection tools you will use, including a demographic sheet, in appendices, so as part of your final paper for submission. If you are unable to obtain a copy of an actual tool (e.g., you would have to pay for it), then put as much as you know about it in the appendix - you might find example questions in an article you read - and explain why you have not included it. Reliability and validity information belongs in the body of your paper however.

NOTE: You need to identify the type of measures that would be appropriate for measuring the variables you have selected. Make sure you are clear on the level of measurement for each variable and that you understand which is the independent and which are the dependent variables. Use all of the available resources to find appropriate instruments - readings from this course, the library, your colleagues, the internet, etc. Sharing your findings with other students is recommended: it may save someone else extra searching and, in turn, another student may just tell you about a tool that would work perfectly in your FRP. Remember, you may be unable to obtain an instrument from its developers, so be sure to review any publication(s) that describe how the instrument was developed and/or its validity and reliability.

- **Sampling Strategy:** Include the target population and possible subjects. Explain sampling and recruitment procedures. Describe sample size needed (with rationale relevant to the focus and design of the study; ensure feasibility), type of sample, and sample inclusion and exclusion criteria.

NOTE: Consider the sample you are thinking about for your FRP when you select approaches to collecting data - who is in the study (i.e., subjects' characteristics) is key to what kind of data the sample can provide. There must be a match between what you can obtain from the sample and the data you seek. For example, you cannot expect to collect data about stress levels in the elderly if your sample ranges in age from 18 to 45 years. You will need to carefully consider where you might access subjects, as well as any limitations to your sampling plan.

- **Ethics:** Consider what review board approval is needed for human subjects' research. Detail how you might recruit subjects and obtain their consent. Discuss how you will deal with the ethics involved, e.g., submit to an appropriate REB. Develop an informed consent form and include a copy of it with your FRP in an appendix. See the Faculty of Graduate Studies website for information about ethics and for a sample informed consent form: <http://www.yorku.ca/grads/policies/ethics.htm>
- **Statistical Analyses:** Outline proposed statistical analysis for your chosen methodology (remember, you will not actually be conducting this study or running the tests, so all your language will be about what you 'will do'). Include statistics you would use to describe the study sample and results from the data collection tools, e.g., means and standard deviations for continuous data; independent *t*-tests to compare two groups. Provide as much detail as possible about what data will be used to address all study hypotheses and what statistical tests will be used to test the resulting statistical hypotheses. So will need to discuss inferential tests for data collection tools to show how they will link back to answering hypothesis. Consider how sample characteristics might influence testing hypotheses.

NOTE: Remember that a well-thought out research proposal will flow from one section to another - the analysis plan must be clearly linked to the prior work. For example, the tests must help you answer your research question and they must be run in such a way that they match the hypothesis. For every hypothesis you propose, you need to provide details about the specific statistical test that will be used to test the hypothesis. In addition, you need to propose appropriate descriptive statistics for your study, e.g.,

to describe the sample characteristics, and to report measures of central tendency and dispersion for the dependent variables.

- **Evidence-Based Contribution and Conclusion:** Explain how your research plan, if enacted, will contribute to nursing/healthcare. Should be persuasive to the reader. Must also provide a formal conclusion to the proposal, so emphasize why this study needs to be done.
- **Appendices:** Note that appendices follow references. They should be labelled in order of when they appear in the text and must be titled. Page numbers for appendices should be consecutive and follow the order of the whole proposal, e.g., if references finish on p. 18 then Appendix One would start on p. 19. Start the appendix material on the page labelled Appendix, i.e., do not label one page 'Appendix One: Demographic Form' and then put the actual Demographic Form on the next page.

NOTE: The assessment rubric and the weighting (marks) assigned to each section may help you determine approximately how many pages of this 15 page paper you should devote to a section.

Remember that the FRP assignment should be written as a formal paper using APA. Headings are required; they will help you organize your paper and remind you of what areas you need to work on. Headings also make it easier for the reader to follow (and are usually helpful for a professor to grade). The grading rubric contains sections that would make good headings for your FRP.

NOTE: This FRP is different from your online discussions where you had to support your comments with reference to the course text and other materials. You were all learning, as well as teaching one another. It was important to provide those references so the Course Director knew you were understanding the material and so other students were directed to appropriate sources. But in this FRP, your voice is no longer that of a student. Rather, you need to think of yourself as a researcher who is applying for funding and has to convince a reviewer that your study should be funded. You should expect, however, that a reviewer understands the rationale behind the various aspects of your proposal, e.g., that a strong literature review uses current, primary sources. The reviewer would be assessing your proposal to ensure you have the appropriate aspects clearly outlined and that they all fit together in a coherent whole that deserves to be funded. You do not, therefore, explain every part of your FRP and reference why you are doing something, e.g., do not outline your design and then reference the course text about what it means. When you are asked to provide rationale, such as related to sample size, then a reference might be helpful. Mostly, your references should be about the literature review, the theoretical framework, and the tools to be used along with evidence of their reliability and validity. Remember, the goal of this FRP is for you to share your ideas and demonstrate your ability to design a strong research proposal. It is about showing what you have learned throughout the course, but it is at a higher level of synthesis than your previous online work.

2B. Quiz (10%): Weeks 1 to 6 content, multiple choice and short answers. Online on Monday February 24th at 9-11am.

2C. Own Data File and Analysis (10%), Due March 16th, 2020, 1155pm by e-mail

Developing Skills in SPSS and Statistics

See pp. 9-13 of Module 5 before beginning this assignment. You will have the opportunity to work through much of the assignment during the group activity for week 11, though the activity and this assignment are not completely identical. Each student will use the same variables, but everyone must enter their own data and data cannot be identical to those of any other student.

- Create an SPSS data file with the following variables: ID; Sex (1 = male; 2 = female); Hair colour (1 = brown; 2 = red; 3 = blonde; 4 = grey; 5 = black); Age (in years); and Grades (A, B, C, D, E, F).
- Make up data for 30 subjects for each of the variables you created and enter data into SPSS.
- Save the completed data file in SPSS as 'First name Surname initial Own Data.sav', e.g., Danielle D Own Data.sav'.
- Write **one hypothesis** that you could test given the data you have; propose an appropriate statistical test to test the hypothesis; and conduct the test.
- Copy and paste the output (test result) into your Word document.
- Highlight the **p-value** and the test statistic in the output table.
- Below the SPSS output, interpret a characteristic as appropriate for the variables used, e.g., most men (e.g. 65%) in the sample had grey hair (only need 1 interpretation).
- Then interpret the result (in both words and statistical language), i.e., if the null hypothesis was supported or refuted.

There is no specified page limit for the Word document; no references or reference list; APA format needed for font, cover page, running head, and page numbering only - may need to use landscape orientation and adjust page margins to less than 1" to ensure output table fits. The submitted assignment will consist of 2 files: (a) Word document with a cover page, output table with highlighted *p*-value and test statistic, and written interpretations of results as noted above; and (b) your own data file as an SPSS file attachment. Both files must be submitted to the Course Director by 11.55pm EST on March 22nd, 2020, by e-mail. Unlike your other assignments, you will be able to submit 2 separate files for this assignment.

NOTE: For this assignment, please name your Word file 'First name Surname initial Own Data', e.g., 'Danielle D Own Data.' Remember to save as a 'doc' file and not 'docx.'

2D. Study Data File and Analysis (10%)

See pp. 9-15 of Module 5 before beginning this assignment. Using the '*practice data.sav*' file, answer the following questions. Note that first you will need to **decide which statistics to select** - use the examples from Module 5 as well as your course text to help you determine the appropriate test.

- Copy and paste each question into your Word document; start each question on a new page.
- Copy and paste each SPSS output into your Word document under the appropriate question.
- For question 1, highlight on the **output** the results you discuss in your answers.
- For question 1, write your answers in the space below the output in your Word document.
- For questions 2-5, highlight the *p*-value and the test statistic in the appropriate output table.
- For questions 2-5, write your answers below the output.

- For questions 2-5, interpret the results (in both words and statistical language), i.e., if the null hypothesis was supported or refuted.
 - For questions 2-3, interpret a characteristic as appropriate for the variables chosen, e.g., most people in the sample were married (only need 1 interpretation).
1. Choose a scale (at least interval) data variable other than 'age':
 - a) What is the most appropriate measure of central tendency? (Also, interpret output).
 - b) How much does the sample vary? (Also, interpret output).
 2. Is there a statistically significant difference in recoded educational status between male and female partners? Interpret one characteristic of this sub-sample.
 3. At time 4, is there a statistically significant difference in MUIS scores depending on patients' marital status? Interpret one characteristic of this sub-sample.
 4. What is the relationship between anxiety and uncertainty of illness for partners at baseline and is the result statistically significant?
 5. Do patients have higher total QOL scores than their partners at the end of the study and is the result statistically significant?

There is no specified page limit for the Word document; no references or reference list; APA format needed for font, cover page, running head, and page numbering only - may need to use landscape orientation and adjust page margins to less than 1" to ensure output table fits. The submitted assignment will consist of your Word document with a cover page, output tables with highlighted *p*-value and test statistic, and written interpretations of results as noted above. Do **not** submit the study data file as I already have it. The assignment must be submitted to the Course Director by 11.55pm EST on **FRIDAY** April 3rd, 2020 by e-mail. **NOTE:** For this assignment, please name your Word file 'First name Surname initial Study Data', e.g., 'Danielle D Study Data.' Remember to save as a 'doc' file and not 'docx.'

Grading for Graduate Courses

Grades, other than online discussion, will be reported in accordance with the Faculty of Graduate Studies' system:

A+	(Exceptional)
A	(Excellent)
A-	(High)
B+	(Highly Satisfactory)
B	(Satisfactory)
C	(Conditional)
F	(Failure)
I	(Incomplete)

For further information please see: <http://www.yorku.ca/grads/calendar/facultyregulations.pdf>

NOTE: The following information provides more detail about what is expected for various levels of grades. You can see how important critical analysis, logical flow, structure, and content are to the grade you will earn. Also, writing style is important so please review the APA-related files I've posted in

Moodle before submitting any assignments. The format of the example cover page is strongly recommended, but not mandatory in the MScN program. However, if you get into the habit of using the format then you will always remember to provide the required information no matter which course you are taking. I much prefer that you do use it.

A+ Exceptional: Thorough knowledge of concepts and/or techniques and exceptional skill or great originality in the use of those concepts/techniques in satisfying the requirements of an assignment.

Outstanding; work of exceptional quality. Content is complete, accurate, and at a high level; consistently strong in structure, expression, mechanics (grammar, punctuation, and spelling), and presentation. Well organized, linkages evident, and logical conclusions/proposals. Excellent comprehension of the subject; sound critical and analytical thinking; innovative ideas on the subject. Contains original and credible argument or presentation of the assigned topic with attention to many details and perspectives; excellent use of the literature, and draws on a wide range of current and/or relevant sources that serve as the foundation of arguments/proposals. Evidence of much effort and personal involvement with the topic. Writing style is clear and succinct with correct use of grammar, punctuation, spelling, and referencing format. Errors of expression are infrequent and do not detract from the assignment's effectiveness.

A- to A High to Excellent: Thorough knowledge of concepts and/or techniques together with a high degree of skill and/or some elements of originality in satisfying the requirements of an assignment. Other attributes are similar to "A+" assignment. The principle difference between an "A+" and an "A" assignment is that the grader can find very few or no areas for improvement in an "A+" assignment.

B to B+ Satisfactory to Highly Satisfactory: Good to thorough knowledge of concepts and/or techniques together with a fairly high degree of skill in the use of those concepts/techniques in satisfying the requirements of an assignment. Good to very good quality work with no major weaknesses. Well focused on the topic; clear; explicit; discussion shows more than adequate comprehension of the subject. Some degree of critical and analytical thinking; some use of the literature; most details and perspectives are discussed, but considerations of additional ones would have improved the assignment. Some evidence of personal involvement with the topic. In most cases, writing style is clear and succinct with correct structure, grammar, punctuation, spelling, and correct use of referencing format. Errors of expression are occasional rather than chronic and do not obscure meaning.

The principle difference between an “A-” assignment and a “B+” assignment is in the quality of the discussion. A “B” grade is a competent assignment of good quality with no major weaknesses; similar to a “B+” assignment, but with evidence of a lesser degree of critical and analytical thinking.

C Conditional: Less than satisfactory level of knowledge of concepts and/or techniques together with some skill in using them to satisfy the requirements of an assignment. A less than adequate assignment. Fair comprehension of the subject, but some weaknesses in content and/or structure. Discussion is vague even though on topic; important details or perspectives are left out. Minimal use of the literature; minimal evidence of critical and analytical thinking; transitions may be inconsistent; evidence may be occasionally unconvincing or incomplete. At times lacks clarity and succinctness. Minimal evidence of personal involvement with the topic. Occasional/many errors in structure, grammar, punctuation, spelling, and referencing format, but not so serious or chronic that they make the assignment difficult or impossible to understand.

The principle difference between an “B” assignment and a “C” assignment is in the quality of the discussion with the “C” assignment being more vague than the “B” assignment. A “C” assignment may have more errors in structure etc. than are acceptable in a “B” assignment.

F. Course Topics at a Glance

Students are expected to complete the course preparation prior to beginning the learning activities for the week. Course preparation involves reading the assigned course materials and attempting to understand them prior to engaging in online dialogue. However, learning activities and online discussions will be used to increase your understanding through sharing ideas and knowledge with peers in your group. Some learning activities are completed independently, while others involve posting for group discussion. The required articles will be used in learning activities to apply information from the course text.

The following table lists topics by week and module. The appropriate chapters in your text also are identified. Chapters are for the 10th edition of Polit and Beck which is the course text, you will only be covering Chapters 1 to 19 of 31 chapters. You can use older versions, but chapter and page numbers may change.

Week	Topic	Text
<p>Module 1 <i>Weeks 1-2</i> <u>January 6th-17th</u> (Week 1 Jan 6-10) (Week 2 Jan 13-17)</p>	<ul style="list-style-type: none"> • Intro to nursing research, paradigms, and philosophical positions • Overview of the research process in quantitative studies • Developing a theoretical or conceptual context • Conceptualizing research problems, research questions, and hypotheses • Finding and critiquing evidence: Research literature reviews <p>THIS IS A HEAVY MODULE SO PLAN ACCORDINGLY</p>	<ul style="list-style-type: none"> • Chap. 1 10th edition Polit & Beck (2017) • Chap. 3 • Chap. 6 • Chap. 4 • Chap. 5
Week	Topic	Text
<p>Module 2 <i>Weeks 3-4</i> <u>Jan 20-31</u> (Week 3 Jan 20-24) (Week 4 Jan 27-31)</p>	<ul style="list-style-type: none"> • Planning a nursing study • Designing quantitative studies • Enhancing rigor in quantitative research • Undertaking research for specific purposes • Thoughts on triangulation <p>Assignment 2A - Draft Part One due February 2nd, 2020 (10%)</p> <p>THIS IS A HEAVY MODULE SO PLAN ACCORDINGLY</p>	<ul style="list-style-type: none"> • Chap. 8 • Chaps. 9, 11 • Chap. 10
<p>Module 3 <i>Weeks 5-6</i> <u>Feb 3rd- Feb 14th</u> (Week 5 Feb 3rd- Feb 7th)</p>	<ul style="list-style-type: none"> • Designing and implementing a data collection plan • Collecting structured data • Assessing measurement quality in quantitative studies • Developing self-report scales 	<ul style="list-style-type: none"> • Chap. 13 • Chap. 14 • Chap. 15

(Week 6 Feb 10th-Feb 14th)	N.B. No classes Reading Days February 15th- 21, so no postings online	
Module 4 <i>Weeks 7-8</i> <u>Feb 24-March 6th</u> (Week 7 Feb 24-Feb 28th) (Week 8 March 2-6th)	<ul style="list-style-type: none"> Quantitative sampling techniques Generating research evidence ethically Quiz- Monday Feb 24th, 9-11am Assignment 2A - Draft Part Two due March 8th, 2020 (15%) EXCEPT PART 2B DATA PLAN	<ul style="list-style-type: none"> Chap. 12 Chap. 7
Module 5 <i>Weeks 9-12</i> <u>March 9th-April 3rd</u> (Week 9 Mar 9th-Mar 13th) (Week 10 Mar 16 th -Mar 20th) (Week 11 Mar 23rd-Mar 27th) (Week 12 Mar 30th-April 3rd)	<ul style="list-style-type: none"> Please note that on March 10th, 6-8pm I will have a mandatory class on basic stats and using SPSS Here is the link https://yorku.zoom.us/j/202665746 please have audio and video ready <ul style="list-style-type: none"> Learning SPSS and Review of Elementary Statistics Describing data through statistics Using inferential statistics to test hypotheses Assignment 2C - Own Data File and Analysis due March 16th, 2020 (10%) <ul style="list-style-type: none"> Designing a quantitative analysis strategy: From data collection to interpretation Assignment 2B-Detailed Analysis Plan– March 22nd, 2020 (10%) <ul style="list-style-type: none"> Using multivariate statistics to analyze complex relationships (multiple regression, ANCOVA, factor analysis, path analysis) Assignment 2D –Study Data File and Analysis due April 3rd, 2020 (10%) Assignment 2A - Final Research Proposal due April 10th, 2020 (25%)	<ul style="list-style-type: none"> Chap. 16 Chap 17 Chap. 18 Chap. 19

Table 1: Online Discussion Grading

Criteria	Maximum 2 Marks per Criterion	Maximum 1 Mark per Criterion	Failure: 0 Marks per Criterion
Participation	<ul style="list-style-type: none"> • Participates in each assigned discussion topic • Posts insightful comments and questions that prompt further discussion 	<ul style="list-style-type: none"> • Participates in each assigned discussion topic, but does not post comments or questions to prompt further discussion 	<ul style="list-style-type: none"> • Does not participate during the assigned week
Application of Content	<ul style="list-style-type: none"> • Content from readings and relevant course resources (e.g., web-based resources) is incorporated into the discussion • Offers own/new interpretations of discussion material 	<ul style="list-style-type: none"> • Some content from readings is incorporated into the discussion, but does not reference source. An appropriate reference might be (P&B, p. 265) 	<ul style="list-style-type: none"> • Discussion contains no reference to content from readings • Short perfunctory postings
Level of Analysis	<ul style="list-style-type: none"> • Responses demonstrate analysis and synthesis of content from readings and relevant course resources (e.g., web-based resources) • Critiques points made by other students 	<ul style="list-style-type: none"> • Responses demonstrate some analysis and synthesis of content from readings, but needs further depth and breadth 	<ul style="list-style-type: none"> • Responses are superficial and/or lack analysis and synthesis of content from readings
Supports Learning of Other Students	<ul style="list-style-type: none"> • Interacts with multiple students within each assigned discussion topic • Consistently respectful, positive, and collegial dialogue with other students 	<ul style="list-style-type: none"> • Interacts with no more than one student within each assigned discussion topic • Mostly respectful, positive, and collegial dialogue with other students 	<ul style="list-style-type: none"> • Does not interact with and/or show respect to other students

Table 2: Final Research Proposal

Assessment Rubric for Final Research Proposal					
					Score
Statement of the Problem	An arguable thesis for problem to be addressed by the proposed study is clearly stated. Captures the reader's attention immediately. (Score=3)	An arguable thesis for problem to be addressed by the proposed study is stated, but not immediately apparent. Captures the reader's attention after reading more than one paragraph. (Score=2)	A thesis is stated for problem to be addressed by the proposed study, but it is general and lacks specificity. Does not capture the reader's attention. (Score=1)	Does not clearly identify a thesis. (Score=0)	
Literature Review (LR)	Writing is clear, logical, and very organized around a developed thesis. Every point is clearly supported by current, strong evidence using mostly primary sources. Consistent and critical analysis of the identified literature about the topic of interest. (Score=4-5)	Writing is mostly logical and organized, but some drift from the flow. Most points are supported; mainly current evidence using primary sources. Some critical analysis of the identified literature about the topic of interest, but incomplete. (Score=3.5)	Writing is ambiguous with poor organization. Lack of logical flow. Few points are supported and evidence is minimal and/or mostly not current; uses mostly secondary sources. Scant critical analysis of the identified literature about the topic of interest, (Score=2-3)	Writing is unclear with no organization. No attempt to use evidence to support points. No attempt to explain how the LR relates to the topic of interest. (Score=0-1)	
Purpose	Purpose statement includes variables, sample, setting. (Score=2)	Purpose statement is missing or vague on one aspect. (Score=1)	Purpose is vague. (Score=0.5)	Does not clearly identify a purpose. (Score=0)	
Theoretical Framework	Theoretical framework to guide the proposed study is clearly outlined. Reader can easily follow how the concepts link to the variables under study and/or how the theory guides the study. (Score=4-5)	Theoretical framework to guide the proposed study is outlined, but somewhat unclear. Reader cannot easily follow how the concepts link to the variables under study and/or how the theory guides the study. (Score=3.5)	Theoretical framework to guide the proposed study is unclear. Reader cannot easily follow how the concepts link to the variables under study and/or how the theory guides the study. (Score=2-3)	No link between theoretical framework and concepts/variables under study. No explicit fit of theory to proposed study. (Score=0-1)	
Research Question/ Hypothesis	Well-articulated research question that includes the three variables. All three variables included in a complex hypothesis or separate,	Well-articulated research question that includes the three variables. At least one, but not all of multiple hypotheses is	Research question and hypothesis/es not clearly expressed and/or all three variables are not included. At	Research question not clearly expressed. No hypotheses are testable, feasible.	

Assessment Rubric for Final Research Proposal

					Score
	multiple hypotheses. All proposed hypothesis/es are testable, feasible. (Score=3)	testable, feasible. (Score=2)	least one, but not all of multiple hypotheses is testable, feasible. (Score=1)	(Score=0)	
Research Design	Chosen design is able to address all hypotheses. Design is systematically outlined with explicit rationales. Multiple, potential threats to internal and external validity described and ways to limit threats considered appropriately. (Score= 4-5)	Chosen design is able to address all hypotheses. Design is systematically outlined with minimal rationales. Only one potential threat to internal validity described with some consideration of how to limit it; other appropriate potential threats omitted. (Score=3.5)	Chosen design is not able to address all hypotheses; and/or is not clearly outlined, has minimal rationales. Potential threat(s) to internal and external validity indicated, but description limited. (Score=2-3)	Chosen design is not able to address any hypothesis; and/or is not clearly outlined, has minimal or weak rationales. Potential threats to internal and external validity have not been explored or considered. (Score=0-1)	
Data Collection	Study procedures well described and appropriate for the study. All instruments are clearly described, including evidence of validity and reliability (V&R). Rationales explicit. Copies of all instruments appended as available or explains why not possible; demographic form included. (Score=4-5)	Study procedures described and appropriate for the study. Description of at least some instruments is incomplete. Evidence of V&R limited for some instruments and/or rationales minimal. Copies not appended for all instruments and no explanation provided. (Score= 3.5)	Study procedures poorly described, vaguely outlined and/or not clearly appropriate for study. Description of instruments is limited. Little evidence of V&R. Rationales minimal. No copies of instruments appended and no explanation provided. (Score=2-3)	Study procedures not described. Very limited description of instruments. Very little or no evidence of V&R. Rationales minimal. No copies of instruments appended and no explanation provided. (Score=0-1)	
Sampling Strategy and Ethics	Sampling strategy is clearly outlined. Sample size and type are appropriate for study. Approach to both recruitment and obtaining consent is appropriate. Consent form included. Rationales explicit. (Score=4-5)	Sampling strategy is clearly outlined. Sample size and type are appropriate for study. Approach to either recruitment or obtaining consent is incomplete. Consent form included. Rationales weak. (Score=3.5)	Sampling strategy is vaguely outlined. Approach to both recruitment and obtaining consent is incomplete. May be no consent form. Rationales weak or minimal. (Score=2-3)	Sampling strategy not outlined. Little if any mention of ethics/sample recruitment. May be no consent form. Rationales minimal. (Score=0-1)	
Statistical Analyses	Appropriate descriptive statistics for sample and study variables. Statistical analyses appropriate to	Appropriate descriptive statistics for the most part. Statistical analyses appropriate	Descriptive statistics limited and/or inappropriate. Statistical analyses incomplete and/or	Descriptive statistics very limited or absent. Statistical analyses not	

Assessment Rubric for Final Research Proposal

					Score
	test hypotheses for all variables. Appropriate consideration of sample characteristics in analysis. (Score=4-5)	to test most aspects of study hypothesis/es. Consideration of sample characteristics in analysis is somewhat limited. (Score=3.5)	inaccurate in some areas. Consideration of sample characteristics in analysis is very limited. (Score=2-3)	appropriate to test hypotheses or largely inaccurate. No consideration of sample characteristics in analyses. (Score=0-1)	
Evidence-Based Contribution and Conclusion	Clearly articulated contribution of potential findings to nursing/healthcare. Very persuasive to reader. Conclusion is clear and strong. (Score=3)	Contribution of potential findings to nursing/healthcare is disjointed, but still persuasive to the reader. Conclusion is weak. (Score=2)	Contribution of potential findings to nursing/healthcare is disjointed, and is not persuasive to the reader. Conclusion is very weak. (Score=1)	Contribution of potential findings to nursing/healthcare is missing or very weak. (Score=0)	
APA Style and Format / References	Few errors in APA style and format and do not detract from content. All sources are fully referenced in text and reference list and properly formatted. (Score=3.5-4)	Some errors in APA style and format, but still do not detract from content. Most sources are fully referenced in text and reference list and most are properly formatted. (Score=3)	Some errors in APA style and format that detract from content. Only some sources are fully referenced in text and reference list and many are not properly formatted. (Score=1-2)	Many errors in APA style and format that detract from content. Many sources are not fully referenced in text and reference list and formatting is very poor. (Score=0)	
TOTAL					