

GS/NURS 5300A 3.0 Quantitative Research Methods in Nursing Science Course Outline – Fall 2013

Course Director: Dr. Mina Singh, RN, PhD (section A)

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 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, go to <http://www.yorku.ca/computing/students/accounts/passport york.html> to set one up. To access Moodle, go to <http://moodle.yorku.ca> and remember to join the course so you can obtain materials and start posting.

Required text.

Polit, D.F., & Beck, C.T. (2012). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed.). Philadelphia, PA: Lippincott, Williams and Wilkins.

Recommended text.

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

Pallant, J. (2008). *SPSS survival manual* (2nd ed.): A step by step guide to data analysis using SPSS for windows (Version 12). Chicago, IL: Open University Press.

Trochim, W. (2005). Research methods knowledge base. Helpful website for review of research-methodology: <http://www.socialresearchmethods.net/kb/contents.php>

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

You can obtain a copy of the articles in two ways:

- Go to <http://www.library.yorku.ca/ccm/jsp/homepage.jsp>
- Remember that you will need to sign in when accessing electronic resources from home (Passport York or library number).
- Click on eResources.
- Type in the name of the journal (e.g., Journal of Nursing Scholarship) and then click Go.
- Click on the underlined journal name.
- Click on the desired year, e.g., 2008.
- Click on the required volume and issue, e.g., Volume 40, Issue 2.
- Scroll down to find authors' names (e.g., 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 as well).

OR

- Go to <http://www.library.yorku.ca/ccm/jsp/homepage.jsp>
- Remember that you will need to sign in when accessing electronic resources from home (Passport York or library number).
- Click on Reserves.
- Type in surname of Course Director (Singh) and then click 'Go.'
- Click on Course Director's name (Singh, Mina) for NURS5300.
- Click on 'Click to access this resource' under appropriate reference.
- Click on underlined URL beside 'Source' for article you need.
- You will be taken to another web page; print or save the article.

Required Articles for Online Discussion

- Benkert, R., Hollie, B., Nordstrom, C. K., Wickson, B., & Bins-Emerick, L. (2009). Trust, mistrust, racial identity and patient satisfaction in urban African American primary care patients of nurse practitioners. *Journal of Nursing Scholarship, 41*(2), 211-219. doi:10.1111/j.1547-5069.2009.01273.x
- Hatfield, L. A. (2008). Sucrose decreases infant biobehavioral pain response to immunizations: A randomized control trial. *Journal of Nursing Scholarship, 40*(3), 219-225. doi:10.1111/j.1547-5069.2008.00229.x
- Hicks, M., McDermott, L. L., Rouhana, N., Schmidt, M., Seymour, M. W., & Sullivan, T. (2008). Nurses' body size and public confidence in ability to provide health education. *Journal of Nursing Scholarship, 40*(4), 349-354. doi:10.1111/j.1547-5069.2008.00249.x
- Lavoie-Tremblay, M., Wright, D., Desforges, N., G elinas, C., Marchionni, C., & Drevniok, U. (2008). Creating a healthy workplace for new-generation nurses. *Journal of Nursing Scholarship, 40*(3), 290-297. doi:10.1111/j.1547-5069.2008.00240.x
- McCloskey, D. J. (2008). Nurses' perceptions of research utilization in a corporate health care system. *Journal of Nursing Scholarship, 40*(1), 39-45. doi:10.1111/j.1547-5069.2007.00204.x
- Northouse, L. L., Rosset, T., Phillips, L., Mood, D., Schafenacker, A., & Kershaw, T. (2006). Research with families facing cancer: The challenges of accrual and retention. *Research in Nursing & Health, 29*(3), 199-211. doi:10.1002/nur.20128
- Rew, L., Grady, M., Whittaker, T. A., & Bowman, K. (2008). Interaction of duration of homelessness and gender on adolescent sexual health indicators. *Journal of Nursing Scholarship, 40*(2), 109-115. doi:10.1111/j.1547-5069.2008.00214.x
- Rodwell, J., Noblet, A., Demir, D., & Steane, P. (2009). Supervisors are central to work characteristics affecting nurse outcomes. *Journal of Nursing Scholarship, 41*(3), 310-319. doi:10.1111/j.1547-5069.2009.01285.x

Web-Based Resources

How to write a literature review.

<http://www.writing.utoronto.ca/advice/specific-types-of-writing/literature-review>
<http://www.wisc.edu/writing/Handbook/ReviewofLiterature.html>
<http://library.ucsc.edu/ref/howto/literaturereview.html>

Ethics.

Tri-Council Policy Statement

<http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/>

Canadian Institutes of Health Research

<http://www.cihr-irsc.gc.ca/e/29331.html>

American Psychological Association

<http://www.apa.org/ethics/index.aspx>

National Research Council of Canada

<http://www.nrc-cnrc.gc.ca/eng/ethics/human-subjects.html>

Sampling.

<http://www.statcan.ca/english/edu/power/ch13/probability/probability.htm>

<http://www.surveysystem.com/sscalc.htm>

Power analysis information and applets.

<http://www.math.yorku.ca/SCS/Online/power/>

<http://www.statsoft.com/textbook/stpowan.html>

<http://www.stat.uiowa.edu/~rlenth/Power/>

Tips on developing surveys and questionnaires.

<http://www.socialresearchmethods.net/kb/survey.htm>

<http://www2.chass.ncsu.edu/garson/pa765/survey.htm>

SPSS.

http://www.allenandunwin.com/spss/data_files.html

<http://www.ats.ucla.edu/stat/spss/default.htm>

<http://www.psych.utoronto.ca/courses/c1/spss/toc.htm>