

University of Guelph  
Department of Family Studies and Applied Nutrition

## **Final Project in Applied Human Nutrition FRAN\*6750 Fall 2015, Winter & Spring 2016**

### Course Outline

#### **Instructor: Paula Brauer**

MINS 037 (class)

MINS 235 (office)

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#### **Course Description**

- *Paradigms, models and terminology for practice based “research” in health and social services contexts*
- *Planning the study – Typical study designs, logic models*
- *Basic methods of conceptualizing, conducting, analysing and presenting focus groups, surveys, key informant interviews, audits, consensus processes*
- *Develop a range of research skills by participating in a community research project.*

The goal of this course is to have students gain skills in applied implementation research for dietetic services in public health, social services and/or clinical contexts. Students will be exposed to a number of approaches and will develop selected research skills. The course is centered on an group research project to be completed over the course of the Masters of Applied Nutrition program. Format includes formal class instruction and individual mentoring to complete the project.

#### **The Final Projects**

Ideas for the final projects were solicited this past summer from the Research Shop with partners who are interested in having MAN graduate students involved in their projects. Community partners volunteer their time to work with students to complete projects relevant to practice.

Projects vary from year to year:

- Quality assurance review or audit
- Development of a research proposal with literature review
- Secondary data analysis
- Key informant interviews
- PEN project pathway development
- Patient or client surveys

The size and depth of the projects are constrained by the time available and are developed in conjunction with the course instructor and co-investigators (preceptors). Students will be

expected to dedicate on **average of 3-4 hours a week to the project over the course of 3 consecutive semesters.**

End products of the course include a written project rationale, involvement in revision/review of the ethics application and successful conduct of the study, production of an abstract and final report as well as an oral and poster presentation of the applied research project before an audience of peers and community members.

### **Organization – Unique Features of Course**

- This course is organized to allow MAN students to complete graduate level research projects that meet the requirements of internship.
- The “course” runs all year.
- The format is a blend of traditional classroom work with individual advising.
- The research process ALWAYS involves the unexpected; projects WILL evolve.
- All decisions on the completion of the projects are negotiated with the community partners, with final decisions on course completion made by the course instructor and MAN coordinator.
- Students will generally work in groups of 2 or 3 to complete projects.
- Communication is critical - Courselink, Skype, teleconference, Doodle, and others as needed. Time during each Monday class in the fall for team to meet. See syllabus for plan. Courselink will be the official repository for the course.
- Most deadlines can be flexible, to account for other priorities, except for certain dates, such as for oral presentations and submission of graduate studies documents. Need for changes must be communicated to the team.
- As in thesis advising, there will be multiple opportunities for discussion and feedback. Generally the student is responsible for seeking advice as needed (and early). The emphasis is on developing an excellent product that will be useful or publishable, not on comparing students to each other.
- Each student has an advisory committee and an individual program of study in Graduate Studies. For MAN, the committee for reporting purposes consists of the course instructor or faculty advisor (for those doing a project with other AHN faculty) and Alexia Prescod. Preceptors do not have “faculty standing”. Each semester the thesis committee must report on overall student progress (mainly in research) to Graduate Studies. All forms are found on the Graduate Studies site.
- The Advisory Committee and Graduate Degree Program forms are completed once in the program in December (student completes and faculty advisor and student sign).
- The Semester Evaluations are completed each semester by the instructor (or other AHN faculty), signed by ALL parties (Dec, April, August). Students are encouraged to add commentary on their progress. “Grading” is Satisfactory/Some Concerns/Unsatisfactory.

### **Learning Outcomes**

To complete this course the student will:

- **Develop specific technical research skills for selected study designs and dietetic practice issues.**

- **Complete an assigned applied research project** related to dietetic practice, in collaboration with the MAN program coordinator, and the course instructor, in cooperation with a topic co-investigator (AHN faculty member or practicum preceptor)
- Develop **research process/management skills** by completing a project, including developing excellent communication skills, teamwork, creative problem solving with a team, flexibility, resource management
- Produce a **number of research products** as outlined under evaluation.

## Required Online Courses

IHI Open School. IHI Open School Certificate of Completion- Basic Level. Improvement Capability - courses 101, 102, 103, 104, 105, 106.

<http://www.ihl.org/offerings/IHIOpenSchool/Pages/default.aspx>

Panel on Research Ethics. TCPS 2: CORE — Tutorial. <http://tcps2core.ca/welcome> (8 modules)

## Basic Research Skills

1. Systematic Searching – do you know how to search using MeSH headings in Pubmed?
2. Gathering and keeping track of references -  
<http://guides.lib.uoguelph.ca/c.php?g=137782&p=900773>
3. Basic SPSS Version 23 to complete analysis of dataset – go to software distribution  
<http://www.lib.uoguelph.ca/get-assistance/maps-gis-data/data-analysis/spss>

## Resources

Health Quality Ontario. Quality Improvement Guide. Toronto: Queen’s Printer for Ontario, 2012. <http://www.hqontario.ca/quality-improvement/tools-and-resources>

Dietitians of Canada: Resources about dietetic research:

<http://www.dietitians.ca/Knowledge-Center/Nutrition-Research-CINDAR.aspx>

Writing your research proposal: A workbook for first time and inexperienced researchers in the social science and humanities.

By: Craig Higson-Smith with contributions from Julie Parle, Lis Lange and Ann Tothill

<http://nusrlmethods2012.files.wordpress.com/2012/01/researchproposal0305.pdf>

University of Guelph, Office of Research:

<http://www.uoguelph.ca/research/>

Example REB submissions from 2013-15 (on Couselink).

## Resources on Applied Research Implementation and Knowledge Translation

Improving Patient Care: The Implementation of Change in Health Care, 2nd Edition

Richard Grol (Editor), Michel Wensing (Editor), Martin Eccles (Editor), David Davis (Editor)  
ISBN: 978-0-470-67338-6. Wiley, 2013.

NIH. Health Services Research Information Central - Dissemination and Implementation  
Science. [http://www.nlm.nih.gov/hsrinfo/implementation\\_science.html](http://www.nlm.nih.gov/hsrinfo/implementation_science.html)

Dissemination and Implementation Research in Health: Translating Science to Practice.  
Ross C. Brownson (Editor), Graham A. Colditz (Editor), Enola K. Proctor (Editor). Oxford  
University Press, 2012.

Knowledge Translation in Health Care: Moving from Evidence to Practice.  
Sharon Straus (Editor), Jacqueline Tetroe (Editor), Ian D. Graham (Editor). BMJ Books, 2<sup>nd</sup> ed,  
2013.

### **Survey Methods**

Dillman, Don A., Smyth, Jolene D, Christian, Leah Melani. Internet, phone, mail, and mixed-  
mode surveys: the tailored design method, 4th ed. Hoboken, N.J.: Wiley & Sons c2014. (faculty  
copy).

Aday, Lu Ann. Cornelius, Llewellyn Joseph. Designing and conducting health surveys: a  
comprehensive guide 3rd ed. San Francisco: Jossey-Bass c2006. Book in library RA408.5A33

Qualtrics University. Learn Qualtrics in 5 Steps. [http://www.qualtrics.com/university/researchsuite/misc-  
pages/misc/learn-qualtrics-in-5-steps/](http://www.qualtrics.com/university/researchsuite/misc-pages/misc/learn-qualtrics-in-5-steps/)

CPHA. Guide to Improved Data Collection in Health & Health Care Surveys (2012) AND  
Guide to Questionnaire Construction and Question Writing (2012). Ottawa: Canadian Public  
Health Association. (14.95 each) <http://publications.cpha.ca/collections/all/english+cpha>  
(faculty copy)

Willis G. 1999. Cognitive Interviewing: A “How To” Guide.  
<http://fog.its.uiowa.edu/~c07b209/interview.pdf> (in Courselink)

BEATTY P, Willis G. RESEARCH SYNTHESIS: THE PRACTICE OF COGNITIVE  
INTERVIEWING. Public Opinion Quarterly, Vol. 71, No. 2, Summer 2007, pp. 287–  
311.(Courselink)

Blair J, Conrad FG. Sample Size for Cognitive Interview Pretesting. Public Opinion Quarterly  
2011;75:636-58.(Courselink)

### **Focus Groups**

Krueger RA, Casey MA. Focus groups: a practical guide for applied research, 4<sup>th</sup> ed. Los  
Angeles, SAGE, 2009. (faculty copy) (3<sup>rd</sup> edition in library)

Larson K, Grudens-Schuck N, Lundy Allen B. Can You Call It a Focus Group? Iowa State University Extension May 2004. <https://store.extension.iastate.edu/Product/Can-You-Call-It-a-Focus-Group-Methodology-Brief> (in CourseLink)

### **Basic Qualitative Analysis**

Green, J., & Thorogood N. (2009). Qualitative methods for health research. London, UK: SAGE Publications. (faculty copy – resource)

Hsieh HF, Shannon S: Three Approaches to Qualitative Content Analysis. Qualitative Health Research 2005, 15: 1277-1288. (in CourseLink)

Braun, V and Clarke, V. (2006) Using thematic analysis in psychology. Qualitative Research in Psychology, 3: 2, 77 — 101. (in CourseLink)

Saldaña, Johnny. The coding manual for qualitative researchers, 2nd ed. London; Thousand Oaks, Calif: SAGE 2013 (H62.S343 2013) (faculty copy)

Wreally Studios (2014) Transcribe software <https://transcribe.wreally.com/> (new)

**Audits** (differs by EMR and focus – basic tool is Excel)

Clinical Audit Support Centre, UK. Clinical Audit Tools. Available from:

<http://www.clinicalaudittools.com/>

Intended for healthcare providers, the website includes useful and interactive resources to assist with re-invigorating the clinical audit.

### **Consensus processes – many approaches - Delphi, Nominal Group**

Brauer P, Dietrich L, Davidson B. Nutrition in primary health care: using a Delphi process to design new interdisciplinary services. Canadian Journal of Dietetic Practice & Research 2006; Suppl:S14-S29.(in CourseLink)

### **Mixed Methods**

Creswell, JW, Plano Clark VL. Designing and Conducting Mixed Methods Research, 2<sup>nd</sup> ed. Sage: Thousand Oaks, CA, 2011.

### **Program Evaluation**

Mertens, D. M., & Wilson, A. T. (2012). Program Evaluation Theory and Practice: A Comprehensive Guide. New York, NY: The Guilford Press. (ebook in library)

### **Logic models**

Wyatt Knowlton, L., & Phillips, C. C. (2013). The Logic Model Guidebook: Better Strategies for Great Results. Thousand Oaks, CA: Sage Publications, Inc. (faculty copy)

### **Method of Evaluation**

Assignment 1 – data analysis –separate document	10%
Research proposal – oral presentation	10%
Research proposal - written	10%
Completion of IHI Certificate	10 %
Completion of ethics course	10%
Abstract for final research day presentation	5%
Research poster & poster presentation	5%
Research presentation (~20 min)	5%
Final written research report	20%
Effort/Progress in project (assessed by preceptor or faculty advisor)	15%

## **Typical Course Administration Content**

### E-mail Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

### When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course in writing, with your name, id#, and e-mail contact. See the graduate calendar for information on regulations and procedures for Academic Consideration:

[https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/genreg/sec\\_d0e2082.shtml](https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/genreg/sec_d0e2082.shtml)

### Academic Misconduct

[https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/genreg/sec\\_d0e2386.shtml](https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/genreg/sec_d0e2386.shtml)

The University takes a serious view of academic misconduct and will severely penalize students, faculty and staff who are found guilty of offences associated with misappropriation of others' work, misrepresentation of personal performance and fraud, improper access to scholarly resources, and obstructing others in pursuit of their academic endeavours. In addition to this policy, the University has adopted a number of policies that govern such offences, including the policies on Misconduct in Research and Scholarship

[http://www.uoguelph.ca/research/forms\\_policies\\_procedures/index.shtml](http://www.uoguelph.ca/research/forms_policies_procedures/index.shtml) and the Student Rights and Responsibilities regulations. These policies will be strictly enforced.

### Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

### Resources

The Graduate Calendar is the source of information about the University of Guelph's procedures, policies and regulations which apply to graduate programs:

<http://www.uoguelph.ca/registrar/calendars/graduate/current/>