



**HNU 493  
SENIOR  
HONOURS  
THESIS**

**Course Outline  
2019 – 2020**



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**Office:** JBB 434

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**Meeting times:** O4/O5 block – Wed 12:45-2:00 weekly meeting; Fri 11:15-12:30 seminars (as scheduled). *See Moodle course for select dates and topics.*

**Location:** JBB 237

**Office hours:** Mon, 1:15-2:00; Tues 2:15 – 4:00; Wed 9:45 – 11:00 in JBB 207 [Fall term]

**Moodle course:** 202010-HNU-491.00-Advanced Major & Hon Seminar

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# 1 COURSE DESCRIPTION

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This full year (3-credit) course is not a lecture course but is based on a program of research involving use of sound research methodology to investigate a research question in the area of human nutrition. An acceptable thesis based on original research must be submitted by the deadline set by the University administration (see below) to satisfy the departmental requirements for award of the B.Sc. in Human Nutrition with Honours. A series of formal course meetings will be held throughout the academic term to assist with progression through the research process. **Students are required to attend the department seminar series, which will present various research and professional issues throughout the term.**

**To successfully complete this course:**

- Students should allow a minimum time allotment of three lecture periods (i.e. 150 min/week) and a laboratory (i.e. one full afternoon) per week throughout the year.
- The lab time equivalent should be allotted to the experimental work and the remaining time to library research and writing of the thesis.

It is intended that all students, whether they are able to work with faculty during the summer period or not, shall have equal access to the Honours research experience. Thus, the scope of the honours project will vary according to the type of research project, access to resources for summer research, and the time period available to conduct the research. It is the responsibility of the Department Chair and HNU 491 Coordinator to ensure that a uniform standard is applied to all candidates and those students with differing opportunities to undertake research are evaluated according to common criteria. Details regarding students' and supervisors' responsibilities and expectations will be described later in this syllabus and will be discussed during seminars.

# 2 COURSE GOALS AND OBJECTIVES

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## Goals

1. To enable undergraduate students to gain exposure to original field, laboratory or practice-based research.
2. To help students gain an understanding of the design of an investigation, data collection, data analysis and formal presentation of the findings (oral and written).

## Objectives

By the end of the Honours program, students are expected to be able to:

1. Critique scientific articles for their content, reliability, and relevance;
2. Search and synthesize the literature to formulate a research question addressing knowledge gaps in the field of food and nutrition;
3. Conduct research using scientifically sound methodology to answer a research question;
4. Collect, analyze, and present research findings both in writing and orally to an academic audience;

5. Build a collegial relationship with thesis supervisor and fellow student researcher colleagues as an essential part of the research process and dialogue.

Course objectives and learning outcomes link to foundational knowledge based on the Integrated Competencies for Dietetic Education and Practice (ICDEP) Version 2.0, April 2013 developed by the Partnership for Dietetic Education and Practice (PDEP), in particular the following:

### **Research and Evaluation (#18)**

- a) Theoretical foundations of research
- b) Qualitative, quantitative and mixed methodologies
- c) Ethics in research
- e) Literature search strategies
- f) Systematic review and critical appraisal of literature
- g) Use of technology to seek and manage information

As well as ICDEP Professional Practice in Dietetics (#16), Communication (#3) and Project Management (#10). For further details please see [page 12](#) of this document.

## **3 RECOMMENDED TEXT (*NOT REQUIRED*)**

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### **Conducting research:**

- Thomas, G. (2017) *How to do your research project: a guide for students (3<sup>rd</sup> Edition)*. Sage Publications Inc., London, UK. 309 pp.

Available through the StFX Bookstore or: Electronic version via: <https://us.sagepub.com/en-us/nam/how-to-do-your-research-project/book248861#preview>

## **4 ANCILLARY TEXTS & RESOURCES**

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### **Conducting research:**

- Wisker, G. (2009) *The Undergraduate Research Handbook (Palgrave Study Skills)*. Palgrave Macmillan, London, UK. 288 pp.

Available online [Kindle Edition](#) CDN\$ 51.05 (*paperback also available*).

### **Conducting literature reviews:**

Fink, Arlene (2013) *Conducting research literature reviews: From the Internet to paper*. 4th ed. SAGE Publications, Inc. 280pp.~CAD 57.00 (Kindle), \$70.00

(Paperback)Central Queensland University Library (2015) Literature Review Tutorial. Retrieved June 27,2016, from <<http://libguides.library.cqu.edu.au/litreview>>Concordia University (2015)

How to write a literature review. Retrieved June 27, 2016, from  
<<https://library.concordia.ca/help/howto/litreview.php>>Garrard, Judith (2010) Health Sciences  
Literature Review Made Easy: The Matrix Method. 5th ed. Jones & Bartlett Learning. 212 pp.  
~CAD \$81.00 (softcover, Amazon.ca)

Available online from Tulane University --  
<https://www2.tulane.edu/publichealth/mchltip/upload/Health-Sciences-Literature-Review.pdf>

### Scientific writing:

Turbek SP, Chock TM, Donahue K, Havrilla CA, Olivererio AM, Polutchko SK, Shoemaker LG, Vimercati L. *Scientific writing made easy: a step-by-step guide to undergraduate writing in the biological sciences*. Bulletin of the Ecological Society of America (2016);97(4):417-26. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/bes2.1258/full>

Strunk, W., & White, E.B. (2000). *The elements of style* (4<sup>th</sup> ed.) Pearson Higher Education, Toronto, ON. *Available in the IDI Resource Room*

Gilpin, A.A., & Patchet-Golubev. (2000). *A guide to writing in the sciences*. University of Toronto Press, Toronto, ON. *Available in the IDI Resource Room*

### Other:

APA Referencing Style: <https://library.concordia.ca/help/citing/apa.php>

## 5 OUTLINE OF KEY DATES AND EVENTS

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**NOTE:** All deadlines listed below are **firm**.

### 5.1 2<sup>ND</sup> AND 3<sup>RD</sup> YEAR: IDENTIFY FACULTY ADVISOR & CHOOSE POTENTIAL THESIS TOPIC

#### Identify Faculty Advisor

On acceptance to the Honours program after second year, students must identify a faculty member as potential supervisor, **before March 15<sup>th</sup> of their third year**. Faculty members, on agreeing to supervise a student, must inform the Chair of their commitment to that student by **March 31<sup>st</sup>**. A faculty member who has committed to supervising other students may decline to supervise additional students. In situations where there is difficulty in associating students with suitable supervisors, it is the responsibility of the Chair to resolve the problem.

#### Thesis Topic Choice

**The student is not expected to suggest the topic unassisted.** Their input and interest in the project is critical but the advice of the advisor is required to judge the availability of the necessary facilities, the interest of the advisor, the time requirement for accomplishment of the objectives, and general feasibility of the project. The student should visit the different professors in the department and discuss their research interests and other suggested topics. The thesis topic generally is directly focused on the research program and interests of the advisor, allowing students to fully utilize faculty expertise. Remember that there is a thesis committee and any one of its members may be approached for guidance.

### Key dates – 2<sup>nd</sup> year:

- February - Attend **HNU Faculty Research Seminar** in seminar block (O4/O5)
- Early March– Academic advising period begins
- Attend your in-class academic advising session (HNU 235, 262, or 365)
- March - Attend **Student Research Day** (date TBA) to see examples of projects and discuss the honours process with current students. Also attend the HNU honours student presentation in HNU seminar throughout March.
- Submit your **honours declaration form** to the HNU Chair by **the last day of March**. [[HNU Declaration Forms](#)]

### Key dates – 3<sup>rd</sup> year:

- Attend your in-class HNU faculty research session (HNU 385) to learn more about potential topics and honours research funding opportunities
- **October - Meet with individual faculty to discuss potential projects and upcoming funding applications**
- **January** – internal deadline for NSHRF Scotia Scholar Award [<https://www.nshrf.ca/scotiascholars>] – *deadline date TBA*
- **February** – internal deadlines for NSERC Undergraduate Student Research Awards & StFX Irving Research Internships [[Student Research Opportunities](#)] – *deadline date TBA*
- **February** - Attend HNU Faculty Research Seminar in seminar block (O4/O5)
- **Early March**– Academic advising period begins
- **March 15** – deadline for students to select a faculty honours advisor
- **March 31** – deadline for faculty members to convey to the Department Chair their agreement to supervise honours projects.
- **Last day of exams** – deadline for holding preliminary discussions with thesis advisor about broad area of thesis topic.

## 5.2 4<sup>TH</sup> YEAR: RESEARCH PROJECT AND THESIS

**NOTE:** All deadlines listed below are **firm**. ([2019-2020 Academic Calendar](#))

### 2019

- Friday, September 13
  - Supervisory Committee to be finalized (note: *responsibility of the Department of Human Nutrition*).
- Thursday, September 19
  - Last day for approval of senior honours and advanced major thesis topics and supervisors (note: University deadline).

- Wednesday, September 25
  - Deadline to submit the [Research Proposal](#) to each member of the student's Supervisory Committee. Submission format must be negotiated in advance with supervisor and advisory committee (e.g. hard copy or electronic format).
  - Deadline to **submit thesis title and advisor's name** to course instructor for HNU webpage
- Friday, October 4
  - Deadline to submit **Research Ethics** application (*if project requires*) to the **Chair of the HNU Student Research Ethics Committee** – at least 1 hard copy and 1 e-copy (editable format .DOC[X]) by email. ([Appendix A](#)) The Committee Chair will advise if the other two copies should be paper or electronic.
- Tuesday, October 15:
  - Supervisory Committee provides formative feedback to student and (provisional) approval of the proposal
- November (Nov 20 to 27, as assigned)
  - **Presentation of Proposal:** Students present their proposed research to departmental seminar (12 minutes with an additional 5 minutes for questions). See Evaluation form in [Appendix B](#). **Note: Supervisor-approved abstracts must be posted on Dept. bulletin board one week prior to presentation.**
- Friday, November 29
  - Deadline to submit copies of the **draft of Literature Review section** of the thesis to each member of the student's Supervisory Committee. Submission format must be negotiated in advance with supervisor and advisory committee (e.g. hard copy or electronic format).

## 2020

- February:
  - Email communications and request for titles/abstract submissions for Student Research Day may begin around this time. Discussion with supervisor should follow upon initial announcements, **prior** to responding to the Student Research Day coordinator.
- Monday, March 2
  - Deadline for submission of **first draft of complete thesis** to each member of Supervisory Committee. Supervisory Committees will meet to review the draft to provide formative feedback by **March 15**. (**NOTE:** This date ensures the committee has time to review and respond to the thesis with adequate time for students to make necessary revisions.)
- March 16:
  - Submit **poster for printing** (*3 days in advance if using StFX Printing Services*) in preparation for presentation at Research Day.
- **March 18 to 25, as assigned**



- **Presentation of Research:** Oral presentation of the full research project during department seminar (15 min presentation with 10 minutes for questions)—**requires acceptance of the thesis draft and presentation slides with speaking notes by the supervisor prior to the presentation.** *Note: Supervisor-approved abstracts must be posted on Dept. bulletin board one week prior to presentation.*
- Thursday, March 19 - Student Research Day
  - Student Research Day poster presentation (details and announcements are given via email by the organization committee).
  - Poster evaluation by HNU faculty/staff ([Appendix B](#)) and StFX judges.
- Monday, March 23
  - Deadline for submission to the **Supervisor(s) & Second reader** of the final copy of the paper for grading, as per University regulations ([2019-2020 Academic Calendar](#)). **This deadline is firm.** (NOTE: Finalization of the paper must be completed PRIOR to this date.) Submission format must be negotiated in advance with supervisor and advisory committee (e.g. hard copy or electronic format).
- Wednesday, April 22 [note: 5 days prior to faculty grade deadline]
  - **Deadline for submission of FINAL edited thesis for printing and binding. This may be submitted earlier if completed.**
  - By this time, students should have revised the thesis for a high-quality final version that is adequately formatted to be printed and bounded. Details on format can be found in this syllabus. Arrangements should be made with the faculty advisor to ensure revisions meet with their approval PRIOR to this date.

**Thesis ordering information:**

- If the student wishes to order a bound thesis they must submit a printed copy, along with the binding fee (~\$15) and a mailing address to the HNU main office admin assistant(s) prior to leaving campus. Faculty advisors who wish to have a bound thesis copy are responsible for their own printing and binding charges. Printing and binding costs for the Departmental copy will be charged to the Department account. **To facilitate thesis printing, ensure your supervisor has a Word and PDF copy of your final, formatted thesis document before you leave the university.**
- All documents and materials, such as spreadsheets, collected data, photos, etc., including an editable version of the final thesis (.doc), related to the Honours research **MUST** be left with the supervisors by this date. **This is a requirement of the ethical guidelines of academic integrity and considered part of completing the Honours degree program. Failure to submit these items will result in an incomplete grade assigned to the student researcher until they are received.**

## 6 ADMISSION, ADVANCEMENT AND GRADUATION REQUIREMENTS

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(See [St. Francis Xavier University Academic Calendar 2019-2020](#), p. 27, *Advancement and Graduation Requirements by Degree Chart 7.1.5*):

**Admission** – End of Second Year:

- average 75 in each of first two years
- combined average 75 in HNU and science courses in first year
- average 75 in HNU courses in first two years
- grade of 70 in each HNU course

**Advancement** – End of Third to Fourth Year:

- average 75;
- average 75 in HNU courses;
- grade of 70 in each HNU course

**Graduation** – Fourth-Year Requirements:

- average 75;
- average 75 in HNU courses;
- grade of 70 in each HNU course

## 7 GRADING AND CREDIT

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### 7.1 GRADE DISTRIBUTION

**Fall term:**

Oral Presentation 10%

**Winter term**

Oral Presentation 10%

Student Research Day – Poster presentation 10%

**Both terms:**

Overall quality of the thesis, laboratory/fieldwork, and research project 70%  
(includes proposal, draft of literature review, thesis draft, final thesis, overall performance for completion of the research)

***Deadline dates as they appear in this course outline are firm. A late penalty will be administered of 10% per day including weekends and holidays.***

## 7.2 CREDIT AND EVALUATION DETAILS:

**The Honours thesis:** Counts as a three-credit course and will receive a numerical grade based on the quality of the research, the seminar presentations, poster presentation, and the written thesis. The thesis submission will be evaluated in terms of the reading and literature research completed to interpret the results, the presentation of data, and the discussion of the findings.

**The laboratory, practice or fieldwork:** Will be evaluated in terms of quality and quantity with neither being able to totally compensate for the other. The presentations will be evaluated in terms of material covered and presentation style (see [Appendix B](#) for samples of grading forms).

**The research project:** Will be evaluated in terms of original contribution, active involvement, and ability to suggest future research questions. The supervisory committee will award the final grade based on the performance of the student during the course of the research program and evaluation of the final copy of the thesis. (See [Appendix B](#))

## 8 SUPERVISORY COMMITTEE

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A supervisory committee will be struck in September by the end of the first full week of classes of the senior year. The committee composition will consist of the faculty advisor and a second faculty member who is familiar with the research area or methodologies (often referred to as “second reader”). In special circumstances, the second faculty member may be from a department other than Human Nutrition.

The supervisory committee has the responsibility to monitor the progress of the student through the research program and to assist as needed. For a more complete description, see [Appendix C](#), *Guidelines for the Various Parties Involved in Honours Student Thesis Research* (Human Nutrition Department Policy).

## 9 THESIS PROPOSAL

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By the end of September, a brief, 10-page proposal must be submitted to each member of the supervisory committee for review. The proposal must include the following:

- background rationale
- problem statement
- specific goals
- hypotheses or research questions/problems
- methodology and early thoughts on data analysis of the proposed research.

The format of the proposal will vary depending upon the research project being undertaken. The faculty advisor will be able to provide guidance specific to the particular project. A guide for organizing the needed information is included with this proposal (see [Appendix D](#) – Research Proposal and Hourglass Analogy of Proposal).

Appropriate academic writing and grammar are expected at all times.

## Resources for Proposal Development

- The text, Gilpin & Patchet-Golubev (2000) *A guide to writing in the sciences*, covers the main components of a proposal.
- List of resources for writing a research proposal:  
<http://www.sites.stfx.ca/research/grants/writing>
- Turbek SP, Chock TM, Donahue K, Havrilla CA, Olivererio AM, Polutchko SK, Shoemaker LG, Vimercati L. *Scientific writing made easy: a step-by-step guide to undergraduate writing in the biological sciences*. Bulletin of the Ecological Society of America (2016);97(4):417-26. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/bes2.1258/full>

As adjuncts to this text, several useful resources have been placed in the Resource Room (JBB 243), including:

- Creswell, J.W. (1994). *Research design. Qualitative and quantitative approaches*. Newbury Park, CA: Sage Publications
- *Guidelines for preparing research proposals. Navigating the road to success*. (1999). Atlantic Health Promotion Research Centre, Halifax, NS.  
Also available online at  
[http://www.ahprc.dal.ca/pdf/publications/1999\\_ResearchGuidelines.pdf](http://www.ahprc.dal.ca/pdf/publications/1999_ResearchGuidelines.pdf) (last access July 16, 2015). Page 11 and onwards provide more relevant information.

## 10 ETHICS SUBMISSION

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For proposed research that involves human subjects, students must prepare an ethics submission. This application process adheres to the Tri-Council requirements of university Research Ethics Boards. Complete the application form found in [Appendix A](#) (and in Moodle) and finalize the contents in collaboration with your thesis advisor. This document must be submitted to the Department Student Research Ethics Committee by **October 4, 2019**.

## 11 ORAL PRESENTATIONS

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### 11.1 PRESENTATION OF PROPOSAL (NOVEMBER)

Early November, each Honours student will make a presentation (12 minute presentation and 5 minutes for questions) to the Human Nutrition Department Seminar Series (in O4/O5 blocks). It should summarize the proposed research: background rationale, literature review, research question and significance/implications, and methodology.

Introduction and thanking of the speaker, as well as taking questions from the audience, will be done by another Advanced Major/Honours student.

## 11.2 PRESENTATION OF RESEARCH (MARCH)

A second oral presentation will be given at Human Nutrition Department Seminar in March after acceptance of the draft thesis. This will be a 15 minute presentation with an additional 10 minutes for questions. It should summarize the whole research: brief background rationale, literature review, research question and significance/implications, and methodology, and elaborate on research results, discussion of findings, and future research.

## 11.3 ABSTRACT PRIOR TO PRESENTATION (1 WEEK PRIOR)

For each seminar presentation, students should post (with due approval from the supervisor) a brief abstract with 2 or 3 key references on the seminar bulletin board **1 week prior to the presentation date**.

For guidance in the preparation of this abstract:

- Wisker, G. (2009) *The Undergraduate Research Handbook (Palgrave Study Skills)*. Palgrave Macmillan, London, UK. 288 pp.
- Gilpin, A.A., & Patchet-Golubev. (2000). *A guide to writing in the sciences*. University of Toronto Press, Toronto, ON. (pp. 23-26). *Available in the IDI Resource Room*

## 11.4 EVALUATION

Each of these seminar presentations will be evaluated by attendees of the seminar (including faculty and staff). All Honours students will be expected to participate in this peer evaluation.

Use the evaluation form in [Appendix B](#) to prepare and be familiar with the evaluation criteria. The form will be distributed during seminar.

Following the presentation, students should discuss completed evaluations with supervisor, who should then return them to the HNU 493 course coordinator.

## 11.5 DATES

Dates for presentations will be chosen at the first course meeting in September (for the fall) and January (for the winter). These dates will be firm, unless illness or family emergency arises.

## 12 RESEARCH DAY (POSTER PRESENTATION)

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Honours students are required to present their research findings at the StFX Annual Student Research Day (SRD) (<https://www.stfx.ca/research/student-research-opportunities/student-research-day>), to be held **March 19, 2019** (location TBA).

Deadlines for title and abstract submissions will be communicated via email approximately one month in advance by the SRD Coordinator. Students will prepare a research poster according to the guidelines and space limitations as set for the event.

Students will be required to attend their poster during an assigned time during which they will respond to questions from visitors to the poster. HNU faculty and staff will visit student posters according to their availability to evaluate both poster and student using the criteria in [Appendix B](#).

Sample poster formats will be available on the Student Research Day website and from thesis supervisors and the HNU 491/493 course coordinator.

*NOTE: **Payment for posters** should be discussed and arranged in advance with the supervisor. Wide format printing costs vary between \$50 and \$100, depending on the size of poster and type of material. Single printed pages (one slide per page) or colour posters are also options. A 17 x 11” colour poster costs ~\$0.75 from StFX Printing Services. When paid for by the Faculty Advisor, posters will be kept and displayed in the JBB building. Students who pay for their own posters are asked to display them in JBB until the end of the term but may, of course, take them when they leave campus.*

## 13 CONDUCTING THE RESEARCH

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**In the case when the thesis components requirements are carried out between September and March of the senior year the supervisor will ensure that the scope of the project accommodates the time frame available.** Summer may be used to do background research on the topic and to write preliminary drafts of the proposal, introduction and literature review.

**In the case when a student solely uses secondary data for analyses, receives an award or scholarship to conduct summer research, or is paid through a supervisor’s grant to conduct research related to the honours project, the initial components of the thesis (e.g. ethics approval, recruitment/sample selection, data collection and analysis) may be carried out before the senior year and the supervisor will ensure that the scope of the project accommodates the time frame available.** Time before the senior year (e.g. summer) may also be used to do background research on the topic and to write preliminary drafts of the proposal, introduction and literature review.

## 14 THESIS FORMAT

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*Prepare the thesis as you progress through the year. Avoid leaving the write-up to the last moment.*

The thesis format will follow a format similar to that of manuscripts for commonly used peer-reviewed journals within the human nutrition field, e.g., *Canadian Journal of Dietetic Practice and*

*Research, Journal of the American Dietetic Association, American Journal of Clinical Nutrition, Qualitative Health Research or Food Technology.* This format will be decided upon by the student and advisor. The Guidelines for Authors of such journals should be consulted when preparing the thesis.

Although the traditional format (i.e. IMRD structure shown next page) may be most used, departures for efficient and clear presentation of the work may be required. Although, the specific structure of the thesis should be determined in consultation with the advisor and with the acknowledgement of the supervisory committee, the formatting should follow the guidelines below:

- **Font:** Standard 12-point font type (preferably, Times New Roman).
- **Spacing:** 1.5 or double-spaced throughout, including references, tables, figures and legends.
- **Margins:** 2.5 cm on top, bottom and right hand margin, and 3.0 cm on the left side to allow for binding. Ensure proper alignment of items, such as in the Table of Content.
- **Tables and Figures:** Interspersed throughout the text. Tables should be numbered consecutively and be placed in the text as close to the first mention as possible. Figures are to be treated similarly. Legends should appear on the same page as the figure.
- **Appendices:** Listed with consecutive letters (e.g. Appendix A, B, C, etc.), rather than numbers. Appendices follow the *References*. Each appendix should include a title page.

A minimum of one copy of the final thesis is required (Human Nutrition Department). If requested, one each for the student, advisor, and committee member(s) should also be made. The printed document should be of letter quality or better.

**TIP:** Use word processing software and save your work in several places, including at least two separate external sources (e.g. USB stick, cloud storage). The use of a reference manager software (e.g. Refworks, <https://www2.mystfx.ca/library/refworks>) will certainly make your work easier when referencing, as long as you start using it from the beginning. Note that using reference software does not preclude a careful review of the reference list produced to ensure accurate formatting.

NOTE:

- Prior to submitting the draft and final thesis to the Committee, use the Thesis Checklist to ensure completeness of submissions (See [Appendix E](#)).

**Suggested Format**

The *Title Page* is unnumbered and should take the following form:

Thesis Title

By

Human Nutrition Student Name

Thesis submitted in Partial fulfillment of  
Bachelor of Science in Human Nutrition with Honours

St. Francis Xavier University  
Antigonish, Nova Scotia

Thesis Advisor: Dr./Professor

Date

©Your Name 2020

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Page Numbering (use Roman numerals for pre-text elements, and Arabic numerals for the text):

Page ii – Acknowledgements

Page iii – Abstract

Page iv – Table of Contents

Page v – List of Figures

Page vi – List of Tables

Page 1 – Introduction

- Literature Review
- Materials and Methods
- Results
- Discussion
- Conclusion
- Suggestions for Future Research
- References
- Appendices A, B, C, etc. (optional)

# 15 HNU 493/491 FOUNDATIONAL KNOWLEDGE SPECIFICATIONS (COGNITIVE COMPLEXITY LEVEL)

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Course objectives and learning outcomes link to foundational knowledge based on the Integrated Competencies for Dietetic Education and Practice (ICDEP) Version 2.0, April 2013 developed by the Partnership for Dietetic Education and Practice (PDEP), in particular the following:

## 3. Communication

- a. Opportunities for and barriers to communications (3)
- b. Communication channels and techniques and their appropriate usage (3)
- c. Strategies for effective communication (3)
- d. Strategies for effective oral communication (3)
- e. Strategies for effective interpersonal communication (3)

## 10. Management

- e. Project management (3)
- f. Regulations, policies and procedures (2)

## 16. Professional Practice in Dietetics

- a. Federal, provincial/territorial requirements (2)
- c. Ethical conduct (3)
- d. Reflective practice (2)
- e. Professional development (2)
- f. Decision making (3)
- g. Time and workload management (3)
- h. Role of research and new knowledge (3)
- i. Technological applications used in practice (2)
- j. Appropriate and secure documentation practices (3)

## 18. Research and Evaluation

- a. Theoretical foundations of research (3)
- b. Qualitative, quantitative and mixed methodologies (2)
- c. Ethics in research (3)
- d. Evidence-informed practice (2)
- e. Literature search strategies (3)
- f. Systematic review and critical appraisal of literature (3)
- g. Use of technology to seek and manage information (3)

## NOTE:

- Other competencies specific to different knowledge areas may be covered depending on research topics.
- Level of cognitive complexity may differ between Honours and Advanced Major projects. These vary by project.

APPENDIX A:  
ETHICS APPLICATION (AND FORM)

## **APPENDIX A: Ethics Application (and Form)**

This section will guide you with points that must be addressed by a proposal for research involving humans. Be sure that this information is included in your proposal. Refer to the [KEY DATES](#) for deadlines on ethics submission.

Undergraduate research projects are approved by the Department of Human Nutrition Student Research Ethics Committee through the form included in this Appendix. The HNU Student Research Ethics Committee then forwards notice of this approval to the St. Francis Xavier University Research Ethics Board (REB), who, in turn, issues a final letter of approval that is valid for 1 year and should be included in your thesis as appendix.

When developing informed consent forms, the information on the [REB web site](#) can also be of use. Referring to recently completed Honours theses may also provide some insights into development of cover letters, informed consent forms, etc.

### **Websites to Assist with Ethics Application Process**

1. Complete the online tutorial from the Tri-Council.  
The TCPS 2 Tutorial – Course on Research Ethics (CORE) Introductory online tutorial for the Tri-Council Policy Statement: Ethical conduct for research involving humans (TCPS). Available online at <http://www.pre.ethics.gc.ca/eng/education/tutorial-didacticiel/>  
**NOTE:** Completing this tutorial is strongly recommended for projects that involved humans in the data collection processes prior to preparation of an ethics application...
2. Review the available information from the StFX Research Services Group (<https://www.stfx.ca/research/research-policies-and-committees>) and the Research Ethics Board ([https://sites.stfx.ca/research\\_ethics\\_board/index.html](https://sites.stfx.ca/research_ethics_board/index.html)), which include ethics requirements of various local and national agencies.



## St. Francis Xavier University Research Ethics Board

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### Additional Cover Page for Honours Students Requesting REB Approval

Each application should include this cover sheet. Applications are submitted to [reb@stfx.ca](mailto:reb@stfx.ca).

- 1. Name and Email Address of Student**
- 2. Title of Project**
- 3. Name of Department or Program**
- 4. Faculty Supervisor of Student (Name and email address)**
- 5. Date Approved by the Program/Departmental REB**
- 6. Chair of Departmental/Program REB (name and email address)**
- 7. Names of Members of Department/Program REB (Names only)**
- 8. Any other relevant information**

**APPLICATION TO CONDUCT RESEARCH**  
**Department of Human Nutrition, St. Francis Xavier University**

Note to Students:

Students must ensure that they understand and follow the Tri-Council Code of Ethics pertaining to research involving human subjects (see <http://ncehr-cnerh/english/>).

The Department of Human Nutrition Ethics Committee must approve this application prior to start of data collection.

Submit this application to your faculty advisor. Your advisor will determine whether it is ready to be submitted to the Student Research Ethics Committee.

**Part I: Application for Ethical Approval**

**Name(s), phone number(s) and mailing address(es) of student researcher(s):**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Name of faculty advisor(s) (Thesis Advisor; Course Instructor):** \_\_\_\_\_

**Course name and number:** \_\_\_\_\_

**Title of your project:** \_\_\_\_\_

**Proposed starting date:** \_\_\_\_\_ **Estimated completion date:** \_\_\_\_\_

**Location(s) where research will be conducted:** \_\_\_\_\_

\_\_\_\_\_

**Is your research being funded or financially supported?**

Yes ( ) No ( )

**If the research is being funded or financially supported, by whom?**

\_\_\_\_\_

**What is the exact title of the project associated with the funding application?** (for co-ordination between the REB and the Research Grants Office)

**Who is the principal investigator on the funding application?**

\_\_\_\_\_

**On what date was funding granted?**  
[day, month, year] \_\_\_\_/\_\_\_\_/\_\_\_\_

**Is the funding ongoing?** Yes (  ) No (  )

**Provide 3 to 5 key words to describe your proposed research project:**

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**Signature of Student Researcher(s):** \_\_\_\_\_ **Date:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Signature of Faculty Advisor (s):** \_\_\_\_\_ **Date:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

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**The research project outlined in the attached *Application to Conduct Research* has the approval of the Departmental of Student Research Ethics Committee.**

**Signatures** \_\_\_\_\_

**Date:** \_\_\_\_\_

## **Part II: APPLICATION FOR ETHICAL APPROVAL**

(NOTE: When typing, leave bolded font for items in the form, and regular font to your responses)

- 1. Briefly describe the objectives of the research study (i.e., what are your theoretical interests, research hypotheses, etc.? What is the significance of the study?).**
  
- 2. Briefly describe your methodology and list what relevant material(s) you have attached to this application (e.g., copy of your questionnaire, interview schedule, experimental design, draft invitation to participate, consent and assent forms, etc).**
  
- 3. Provide a description of the research participants and how they will be involved in your study.**
  - a. Who will be included in this study (e.g., university students, health practitioners, members of the general public)?**
  
  - b. How many subjects are required? \_\_\_\_\_**
  
  - c. How will subjects be recruited and selected?**
  
- 4. Indicate the length of time participants will be involved in the research (e.g., ten minutes, 2 one-hour interviews).**
  
- 5. Describe how you will explain the purpose of your research to your participants. Include a description of what you will say to them about their role in the research.**
  
- 6. Provide a description of what you intend to say to your participants to ensure that non-coercive, informed consent is obtained.** (If your sample includes members of a group that are classified as “vulnerable” by the Tri-Council (i.e., people under the age of 18 years, or people who are mentally challenged), describe how you intend to obtain the non-coercive, informed consent of the participants and the participants’ guardians.)



- 7. Describe how you will explain to the participants their right to refuse to answer specific questions and their right to stop participating at any time.**
  
- 8. Describe how you intend to ensure that the participants' responses will be kept anonymous and/or confidential.**
  
  
  
  
  
  
  
  
  
  
- 9. Indicate whether you use *deception* or anticipate any *risk or cost* to the participants involved in the project. If so, explain why this is necessary for your research project and how the interests of the participants will be protected.**
  
  
  
  
  
  
  
  
  
  
- 10. Describe any other procedures relevant to this application that are not described above and indicate how you intend to ensure that no ethical problems develop.**
  
  
  
  
  
  
  
  
  
  
- 11. List of Appendices attached to this application.** Include any draft or completed print materials to be distributed to subjects, questionnaires, interview guides, letter of invitation, consent and assent forms, etc.

APPENDIX B:  
GRADING AND EVALUATION FORMS

## PROPOSAL: PRESENTATION PERFORMANCE APPRAISAL

Honours \_\_\_\_\_ Advanced Major \_\_\_\_\_ Directed Study \_\_\_\_\_

Presenter's name: \_\_\_\_\_ Date: \_\_\_\_\_

Advisor's name: \_\_\_\_\_

NOTE: Return this form to the 491 coordinator who will distribute a scanned copy to advisors and students.

Performance Objective	Comments/Suggestions
Literature was reviewed critically, with the use of timely and relevant studies.	
Justification and background/rationale of the proposed research is appropriate and in line with the literature review (i.e. transitions logically from the review).	
The objectives and research question(s)/problem(s) are clearly stated and logical.	
Methodology is sound and appropriate to answer the research question/problem (demonstrates understanding of theoretical frameworks, study design, data collection, population, analysis of data, etc., as applicable)	
The presentation was given in an appropriate time frame (stayed within 12 min time limit; left adequate time for questions (5 min)).	
Professional presentation style and delivery (presented in a relaxed, confident, clear voice, and only occasionally referred to notes)	
Appropriate use of technology (slides were uncluttered, easy to read, with good transition and helpful illustrations or pictures)	
Questions were handled appropriately and clearly (clarifies points and does not pretend to know answers)	
<b>OVERALL GRADE LETTER</b> ( <i>Optional for Advanced Majors</i> )	

### EVALUATION KEY

**F** [ $<70\%$ ]: Performs at an unsatisfactory level – *most performance objectives (PO) were not covered*

**D** [70 – 74%]: Performs at a satisfactory/novice level – *PO covered at superficial level*

**C** [75 – 79%]: Performs at a good/advanced beginner level - *PO covered, with room for improvement in most*

**B** [80 – 89%]: Performs at a very good/competent level – *PO well covered, with room for improvement in some*

**A** [90 – 99 %]: Performs at an excellent/proficient level - *all PO covered thoroughly*

**Further comments or suggestions for future presentations:**

**Evaluator:** \_\_\_\_\_ **(this may be kept anonymous)**

## FINAL: PRESENTATION PERFORMANCE APPRAISAL

Honours \_\_\_\_\_ Advanced Major \_\_\_\_\_ Directed Study \_\_\_\_\_

Presenter's name: \_\_\_\_\_ Date: \_\_\_\_\_

Advisor's name: \_\_\_\_\_

NOTE: Return this form to the 491 coordinator who will distribute a scanned copy to advisors and students.

Performance Objective	Comments/Suggestions
Literature was reviewed critically, with the use of timely and relevant studies.	
The <b>outline</b> and <b>objectives/research questions</b> were clearly stated and logical (presented in a way that makes the sequence of events clear)	
The <b>research methods</b> were clearly explained (illustrates understanding of study design, sampling, data collection and method of analysis used)	
The <b>results</b> of the research were presented in a logical and organized way (tables and/or graphs shown, as applicable) and <b>interpreted</b> adequately.	
<b>Discuss</b> the findings in light of current research in the field and their <b>application and significance</b> .	
Displays understanding of <b>limitations</b> and <b>scope</b> of study, as well as implications for <b>future</b> research and practice. Gives an appropriate <b>summary</b> and <b>conclusions</b> (the main points summarized; not repeated).	
The presentation was given in an appropriate <b>time frame</b> (stayed within 15 min time limit; left adequate time for questions)	
Professional presentation <b>style</b> and <b>delivery</b> (presented in a relaxed, confident, clear voice, and only occasionally referred to notes).	
Appropriate <b>use of technology</b> (slides were uncluttered, easy to read, with good transition & helpful illustrations or images).	
<b>Questions</b> were handled appropriately and clearly (clarifies points and does not pretend to know answers).	
Demonstrated ability to critically reflect on <b>lessons learned</b> through the research process or project.	
<b>OVERALL GRADE LETTER</b> (Optional for Advanced Majors)	

### EVALUATION KEY

**F** [ $<70\%$ ]: Performs at an unsatisfactory level – *most performance objectives (PO) were not covered*

**D** [70 – 74%]: Performs at a satisfactory/novice level – *PO covered at superficial level*

**C** [75 – 79%]: Performs at a good/advanced beginner level - *PO covered, with room for improvement in most*

**B** [80 – 89%]: Performs at a very good/competent level – *PO well covered, with room for improvement in some*

**A** [90 – 99 %]: Performs at an excellent/proficient level - *all PO covered thoroughly*

**Further comments or suggestions for future presentations:**

**Evaluator:** \_\_\_\_\_ **(this may be kept anonymous)**

## Honours Thesis HNU 493 - Summary Report

Student Name: \_\_\_\_\_

Thesis Title: \_\_\_\_\_

Supervisor: \_\_\_\_\_

Student Research Committee: \_\_\_\_\_

### I. Thesis and Conduct of Research:

	Unsatisfactory ( $<7$ )	Satisfactory (7-7.9)	Very Good (8-8.9)	Outstanding (9-10)
Ability to search for reliable and scientific literature and information				
Critical review of the literature (comprehensive, demonstrates familiarity with previous work in the field)				
Understanding of the methodology and its strengths and limitations				
Ability to collect data				
Ability to organize and interpret results				
Critical interpretation of the research findings within the context of the literature				
Ability to draw relevant conclusions, applications, and limitations of the research				
Ability to think about the research in a broader context and suggestions for future research				
Quality of writing (coherence, lucidity, grammar, style, freedom from typographical errors)				
Receptiveness to feedback and adequately incorporates it into the research/thesis				

**(1) Total Thesis and Conduct of Research score: \_\_\_\_\_/100**

**Comments Section I - Thesis and Conduct of Research:**

**Advisor:**

**Second reader:**

**II. Conduct as a researcher:**

	Unsatisfactory (<7)	Satisfactory (7-7.9)	Very Good (8-8.9)	Outstanding (9-10)
Originality and creativity				
Industriousness/Perseverance				
Judgement				
Independence and self-directed learning				
Growth during period observed				
Resourcefulness				
Ability to meet deadlines				
Problem solving/critical thinking				
Openness to learning and flexibility				
Initiative				

**(2) Total Conduct as a researcher score: \_\_\_\_\_/100**



**Comments Section II - Conduct as a Researcher:**

**Advisor:**

**Second reader:**

**Overall assessment (write the final grade):**

Unsatisfactory (<70)	Satisfactory (70-79)	Very Good (80-89)	Outstanding (90-100)

**General Comments:**

\*\*\*\*\*

Date: \_\_\_\_\_ Signature(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Poster Evaluation Criteria

# HNU 493

Student Author: \_\_\_\_\_ Evaluator's name: \_\_\_\_\_

## I. Technical:

	Marginally adequate				Excellent
<b>Legibility</b> (adequate font and size, spacing, etc.)	1	2	3	4	5
<b>Organization</b> (academic quality, sequence of topics)	1	2	3	4	5
<b>Overall visual appeal</b> (layout of text, tables, & figures)	1	2	3	4	5

(1) Total technical score: \_\_\_\_\_/15

## Comments:

## II. Content

	Marginally adequate				Excellent
<b>Title</b> (effectively highlights the poster's subject matter)	1	2	3	4	5
<b>Background Information</b> – includes relevant past research and rationale (why you are doing this project)	1	2	3	4	5
<b>Research Question/Problem</b> (clearly stated)	1	2	3	4	5
<b>Research Design</b> (adequate for research question/problem)	1	2	3	4	5
<b>Methods</b> (procedures adequate to answer question)	1	2	3	4	5
<b>Results</b> (adequate/convincing summary of findings; reference to tables/figures as needed)	1	2	3	4	5
<b>Graphs/Tables</b> – of findings appropriately presented	1	2	3	4	5
<b>Conclusions</b> – general summary of results, errors and limitations (without overstating the significance)	1	2	3	4	5
<b>Applications / Future research possibilities</b> - discussed	1	2	3	4	5

(2) Total content score: \_\_\_\_\_/45

## Comments:

**III.Presentation Skills:**

	Marginally adequate				Excellent
<b>Delivery</b> (voice projection, clear and concise summary that engages the audience, delivered in a timely manner.)	1	2	3	4	5
<b>Professionalism</b> (demonstrated in preparedness, verbal and non-verbal interaction with audience)	1	2	3	4	5
<b>Ability to answer questions and reflect on project</b>	1	2	3	4	5

**Comments:**

**3) Total personal skills score: \_\_\_\_\_/15**

**TOTAL SCORE (1 + 2 + 3): \_\_\_\_\_/75 = \_\_\_\_\_/100**

**Letter Grade: \_\_\_\_\_**

**EVALUATION KEY**

- F** [ $<70\%$ ]: Performs at an unsatisfactory level
- D** [ $70 - 74\%$ ]: Performs at a satisfactory/novice level
- C** [ $75 - 79\%$ ]: Performs at a good/advanced beginner level
- B** [ $80 - 89\%$ ]: Performs at a very good/competent level
- A** [ $90 - 99\%$ ]: Performs at an excellent/proficient level

APPENDIX C:  
GUIDELINES FOR THE VARIOUS PARTIES INVOLVED IN  
HONOURS STUDENT THESIS RESEARCH<sup>1</sup>

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<sup>1</sup> Adapted from the Department of Sociology and Anthropology, St. Francis Xavier University on 09/2008.

**APPENDIX D:**  
**Guidelines for the Various Parties Involved in Honours Student Thesis Research**

The purpose of the honours degree program is to provide the student with a guided introduction to the total research process. Experience and research have demonstrated that the nature of supervision and the quality of communications between honours students and their supervisors are critical elements affecting education. The quality of the thesis and the educational experience are enhanced and completion rates are increased when honours students and their supervisors work closely and effectively together. These guidelines<sup>2</sup> are intended to suggest underlying principles and basic procedures which can enhance academic quality, safeguard student welfare, and expedite progress towards satisfactory completion of degree requirements.

A supervisory committee must be struck by the first week of classes in the final year. The composition will be the faculty supervisor, a second faculty member who is familiar with the research area, and the Chair of the Human Nutrition Department. If the Chair is the supervisor, a third faculty member will be appointed. The supervisory committee has the responsibility to monitor the progress of the student through the research program and to assist as needed.

#### THE SUPERVISOR

The principal role of the supervisor (or co-supervisor under unique situations) is to help students achieve their scholarly potential. The student has a right to expect reasonable commitment, accessibility, professionalism, stimulation, guidance, respect and consistent encouragement from the supervisor. The supervisor should be available to help at every stage, from formulation of the project through establishing the methodology and discussing the results, to presentation (oral and written) and possible publication of the thesis. At the same time, the supervisor must ensure that the student's work meets the requisite standards of the University and of the Human Nutrition Department.

Some specific responsibilities of the supervisor are:

- (a) By March of the junior year, to complete a tentative agreement between student and faculty member as well as preliminary discussion of possible topic areas.
- (b) To assist the student with the selection and planning of a suitable and manageable research topic that can be developed and completed by April 1 of the senior year.
- (c) To have sufficient familiarity with the field of research to provide guidance and/or a willingness to gain that familiarity before agreeing to act as supervisor.
- (d) To be accessible to the student for consultation and discussion of the student's academic progress and research. The frequency of meetings will vary according to the stage of work, nature of the project, independence of the student, etc. Weekly contact is essential. In no case should interaction be less frequent than twice per month.

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<sup>2</sup> Adapted from "Guidelines for the Various Parties Involved in Graduate Student Thesis Research" (1994) University of British Columbia.

- (e) To establish, within the first two weeks of the fall term, with input from the student and departmental faculty, a supervisory committee and to convene committee meetings in October and March to evaluate the student's proposal and final report draft.
- (f) To respond in a timely and thorough manner to written work submitted by the student, with constructive suggestions for improvement and continuation. The turnaround time for comments on written work should not normally exceed one week.
- (g) To make arrangements to ensure continuity of supervision when the supervisor will be absent for extended periods, e.g. a month or longer.
- (h) Within the norms appropriate to the discipline, to make reasonable arrangements to ensure that the research resources needed for the thesis project are available to the student and, when necessary, to assist the student in gaining access to facilities, research materials and/or resource people.
- (i) To help ensure that the research environment is safe, healthy and free from harassment, discrimination and conflict.
- (j) When there is conflicting advice or when there are different expectations on the part of co-supervisors or members of the supervisory committee, to endeavour to achieve consensus and resolve the differences.
- (k) To assist the student to be aware of current program requirements, deadlines, etc.
- (l) To encourage the student to make presentations of research results within the University and to outside scholarly or professional bodies as appropriate.
- (m) To help the student plan the work, set a time schedule and adhere as closely as possible to the schedule.
- (n) To acknowledge appropriately the contributions of the student in presentations and in published material, in joint authorship.

## THE STUDENT

In undertaking an Honours degree project, the student is making a commitment to devote the time and energy needed to engage in research and to write a research report which constitutes a contribution to knowledge in the field. The supervisor has the right to expect substantial effort, initiative, respect and receptiveness to suggestions and constructive criticisms. The student must accept the rules, procedures and standards in place in the Department of Human Nutrition and at the University and should check the University Calendar for regulations regarding academic and non-academic matters.

Some specific responsibilities of the student are as follows:

- (a) To make a commitment and show dedicated efforts to gain the background knowledge and skills needed to pursue the honours project successfully.

- (b) To develop, in conjunction with the supervisor, a plan and a timetable for completion of all stages of the project, and to work diligently to adhere to a schedule and to meet appropriate deadlines.
- (c) To meet with the supervisor when requested and to report fully and regularly on progress and on results. The frequency of meetings will vary according to the stage of work, nature of the project, independence of the student, etc. Weekly contact is essential. In no case should interaction be less frequent than twice per month.
- (d) To give serious consideration to and respond to advice and constructive criticisms received from the supervisor and other members of the supervisory committee.
- (e) To pay due attention to the need to maintain a workplace which is tidy, safe and healthy and where each individual shows tolerance and respect for the rights of others.
- (f) To be thoughtful and reasonable in using resources provided for the project by the Department and by the University.
- (g) To conform to University, Department and honours program requirements, including those related to deadlines, report-writing style, conflict of interest, ethics, etc.
- (h) To recognize that the supervisor and other members of the supervisory committee may have other teaching, research and service obligations which may preclude immediate responses. Under normal conditions, the turnaround time for comments on written work should not exceed one week.
- (i) To recognize that where the student's research comprises a component of the supervisor's research program, the responsibility for utilization of data and for publication is held jointly by the supervisor and student. In such cases, a draft paper, together with raw data, will be made available to the supervisor prior to submission for publication or presentation.
- (j) To meet agreed performance standards and deadlines of the funding organization to the extent possible if financing has been provided under a supervisor's contract or grant.
- (k) To conform to the strictest standards of honesty in order to assure academic integrity and professionalism. This includes, but is by no means limited to, acknowledging assistance, materials and/or data provided by others.
- (l) To terminate the work and clean up after the honours program requirements have been met. This includes returning all original data, data analyses, and final thesis, presentation and poster versions (in editable formats; .docx, .xlsx, .pptx) to the supervisor.
- (m) To return borrowed materials to the supervisor, Department, library or resource room, etc. when the project has been concluded or when return is requested.

## OTHER MEMBERS OF THE SUPERVISORY COMMITTEE

The role of the committee is to provide support to both the student and the supervisor by broadening and deepening the range of expertise and experience available for providing advice and for assessment of the student. Specific duties of the supervisory committee are as follows:

- (a) To provide constructive criticism and meaningful discussion of the student's ideas as the project develops, thereby ensuring that the student is exposed to a wider range of expertise and ideas than can be provided by the supervisor alone.
- (b) To be reasonably accessible to the student for consultation and discussion, and to suggest other sources of information to the student.
- (c) To participate in periodic meetings with the student and in assessment of the research proposal, presentations and final research report.
- (d) To offer comments when requested on written work submitted by the student.  
Turnaround times should normally not exceed one week.

## THE DEPARTMENT

The department must endeavour to create an environment within which scholarly work by students can prosper and where problems can be resolved. Specific responsibilities are as follows:

- (a) To make available to prospective (sophomore) and accepted junior students helpful information on courses, areas of expertise of faculty members, honours program requirements, and procedures for completion of honours degree programs.
- (b) To monitor progress of the student through periodic reports of the supervisor and other means.
- (c) To encourage dissemination of results and interaction of honours students with other students and faculty through HNU 491 research seminars and other means.
- (d) To ensure that suitable arrangements have been made for supervision of honours students whose research supervisors are absent for extended periods, e.g., a month or longer.
- (e) To maintain an atmosphere conducive to creativity and productivity, and to provide mechanisms for resolving problems which may arise between honours students and their supervisors or members of supervisory committees.

## THE FACULTY OF SCIENCE

The Faculty of Science ensures that standards of excellence are maintained by all honours degree programs, at the same time as endeavouring to ensure that the overall activities and support system for honours studies at the University are as favourable as possible. It participates in evaluation and gives feedback on honours programs. It also provides an avenue for appeals when problems cannot be resolved within the department. Specific responsibilities with respect to honours programs are:



- (a) To maintain uniform minimum standards across all disciplines in order to ensure the value of StFX Honours degrees.
- (b) To provide a set of procedures and centralized services in order to facilitate effective and efficient administration of honours programs.
- (c) To act as an advocate for honours students and honours degree programs within and outside the University and to seek to establish and maintain a climate which promotes academic excellence and completion of honours programs.

#### IN CASE OF PROBLEMS

Every effort should be made to resolve differences and disputes as close as possible to the source of the problem. The student and supervisor (or other party) should first discuss problems frankly and seek solutions. If a problem cannot be resolved at that level, it should normally be referred to the HNU 493 instructor, then to the Department Chair, and finally to the Office of the Dean of Science if resolution cannot be achieved. Each level will want to make sure that all reasonable efforts have been exhausted at all previous levels prior to launching a formal investigation, although informal advice can often be helpful. Assistance can also be sought through other offices available within the University. If all else fails, the student has the right to launch a formal appeal on academic matters as described in the University Academic Calendar.

February 2000

## APPENDIX D:

### RESEARCH PROPOSAL OUTLINE & HOURGLASS ANALOGY

## **APPENDIX D: Research proposal outline**

NOTE: Sections will vary according to research projects. Your supervisor will guide you on the best structure/format.

### **Introduction**

1. Introductory statement
2. Problem statement
3. Background to problem
4. Purpose of study
5. Research question(s)
6. Significance of study (how might the study findings affect dietetic practice or research?)

### **Literature Review (see [Key Dates](#) for Deadline)**

The proposal should include key literature in the Introduction and Methods sections to support the choices of topic, research question and methodologies to be employed.

### **Methods**

1. Research Orientation
2. Researcher's story/Personal statement (optional; often seen in qualitative studies)  
Why you want to do this; what led you to this study; what background/personal experiences you bring to this study—helps establish credibility and trustworthiness in qualitative designs.
3. Research Design
4. Population/Sample
5. Procedures and Instruments
6. Data Analysis
7. Assumptions
8. Scope/Delimitations and Limitations

- Delimitations: Address how the study will be narrowed in scope and the artificial/intentional boundaries put around study. Example: subject selection will be delimited by choosing from first year Business students
- Limitations: identify any potential or inherent weaknesses of the study design (e.g. sampling strategy, methodology used). Example: the inclusion of first year Business students could limit the generalizability of the findings

9. Timeline

7. Ethics statement

Acknowledges need for consent form, and statement from Departmental Ethics Review Committee

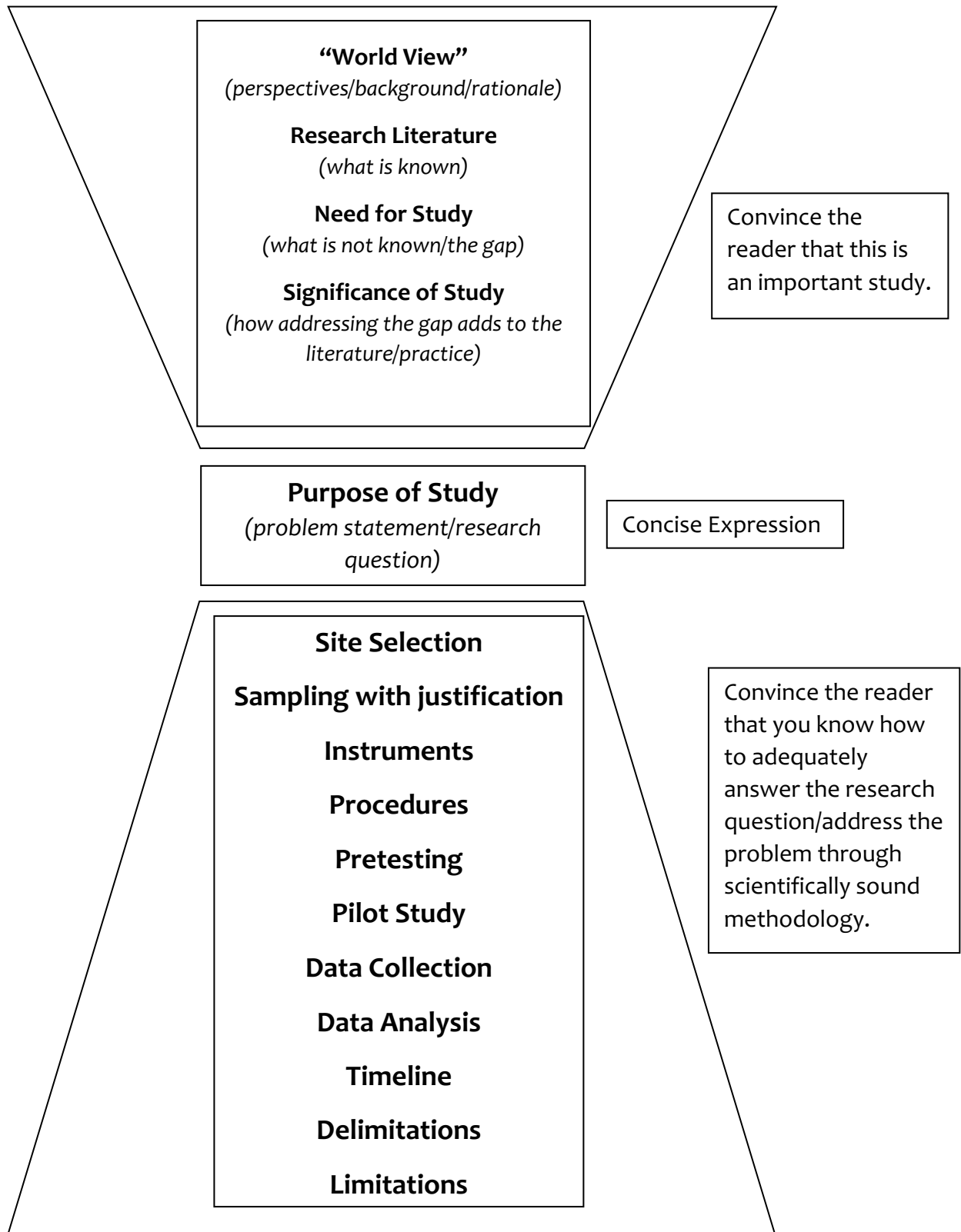
8. Definition of terms

Include the definition/explanation of key terms/concepts/theories used throughout the proposal. Add references as required.

9. Summary statement

---

## Hourglass Analogy of Proposal



## Comments on Hourglass Analogy

A proposal begins with a big picture view and narrows to a specific research question.

- Research Literature** Include some key background literature for the proposal. This will keep the proposal succinct. If most of the literature review section has been completed, it can be appended to the proposal.
- Definitions** Define any terms specific to the proposed research
- Significance of Study** Give 3 or 4 reasons why this study adds to the current knowledge in the area or how the research is expected to improve current practice or policy.
- Sampling** Justifications for sampling methods, inclusion/exclusion criteria should be presented
- Instruments** E.g., if using structured or semi-structured interviews could include guiding questions or key topics; if adapting an existing tool, include a copy of this original tool and suggested adaptations. Include how validity and reliability of the instrument will be determined.
- Procedures** How will instruments be used to gather data?
- Data Collection** How will this occur and what equipment and tools are to be used? e.g., audio or video taping interviews, written questionnaires, analytical laboratory methods, etc.
- Data Analysis** Provide early thoughts on how analysis will be conducted, e.g., descriptive statistics, significance testing, thematic analysis, etc.
- Timelines** Provide an overview of expected times for each segment of the study. A graphical representation can make this easier for readers to visualize.
- Appendices** If ready, include consent forms, cover letters, letters of support/consent, draft research instruments, literature review, etc.

APPENDIX E:  
RESEARCH PROPOSAL AND THESIS CHECKLIST

**APPENDIX E:  
Research Proposal and Thesis Checklist<sup>3</sup>**

**Literature review**

Is this segment well thought-out (logical argument)?	<b>Yes</b>	<b>No</b>
Is the related literature current?	<b>Yes</b>	<b>No</b>
Critique relevant studies?	<b>Yes</b>	<b>No</b>
Clear and organized structure (text organized)?	<b>Yes</b>	<b>No</b>

**Comments:**

**Statement of the question**

Is the problem statement clear and concise?	<b>Yes</b>	<b>No</b>
Does it focus on one research goal?	<b>Yes</b>	<b>No</b>
Do you define the research as basic or applied?	<b>Yes</b>	<b>No</b>
Do you define the research as qualitative or quantitative?	<b>Yes</b>	<b>No</b>
Does the hypothesis flow logically from the statement?	<b>Yes</b>	<b>No</b>
Is the hypothesis simple and uncomplicated?	<b>Yes</b>	<b>No</b>

**Comments:**

**Rationale of the problem**

Is the research significant?	<b>Yes</b>	<b>No</b>
Is the research of potential value?	<b>Yes</b>	<b>No</b>
Are limitations clearly stated?	<b>Yes</b>	<b>No</b>

**Comments:**

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<sup>3</sup> Adapted from P. Mazier HNU 385 Research Proposal Checklist, 2004.



## Methods

Are the following included:

Sample selection and size	Yes	No
Justification of sample selection and size	Yes	No
Ethical approval	Yes	No
Consent forms	Yes	No
Sample technique	Yes	No
Steps in process	Yes	No
Instruments employed	Yes	No
Statistical analysis	Yes	No

**Comments:**

## Thesis Results and Discussion

Are the following included:

Clear statement of the findings	Yes	No
Interpretation of findings according to literature	Yes	No
Conclusions based on results presented	Yes	No
Statement of how findings contribute to the field	Yes	No
Discussion of strengths & limitations of work	Yes	No
Recommendations for further study based on the work	Yes	No

**Comments:**

## Thesis Appendices

Are the following included:

Signed ethics approval (if required)	Yes	No
Signed library copyright permission form	Yes	No

**Overall:**