

TRAILBLAZER ADVENTURER  
INNOVATOR DEFENDER CHALLENGER  
ADVENTURER TRAILBLAZER DEFENDER VISIONARY  
VISIONARY ADVENTURER TRAILBLAZER CHALLENGER DEFENDER VISIONARY

# Syllabus

HNSC 4120: Senior Thesis

Fall 2023 and/or Winter 2024

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## COURSE DETAILS

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**Course Title & Number: HNSC 4120 Senior Thesis**

**Number of Credit Hours: 3.0**

**Class Times & Days of Week: Not applicable**

**Location for classes/labs/tutorials: Not applicable**

**Pre-Requisites:** Students must be registered in their final year of Human Nutritional Sciences program or the Minor in Human Nutrition and Metabolism. Application required. Enrolment limited. Not to be held with HNSC 4122 or HNSC 4600 (3 credit hours regardless of section registered)

**Course Permission:** To receive permission to register for this course: 1) Complete Appendix I and Appendix II; 2) Print/scan/email copies of Appendix I and Appendix II; and 3) Send electronic copies to the Student Services ([aginfo@umanitoba.ca](mailto:aginfo@umanitoba.ca)) and Dr. Rosell ([cristina.rosell@umanitoba.ca](mailto:cristina.rosell@umanitoba.ca)). Course Syllabus and Application Form can also be found on the Department of Food & Human Nutritional Sciences website.

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## Instructor Contact Information

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<b>Instructor's Name &amp; Preferred Form of Address:</b>	Dr Cristina M. Rosell You can address me as Professor or by first name (Cristina)
<b>Office Location:</b>	Human Ecology Building
<b>Office Hours or Availability:</b>	Please send me an email to set-up a virtual or in-person meeting.
<b>Office Phone No.</b>	204-474-9554 (Please leave a message that includes your name, course and call back number. Emails are preferred first).
<b>Email:</b>	<a href="mailto:cristina.rosell@umanitoba.ca">cristina.rosell@umanitoba.ca</a> Emails will be returned within 48 hrs (weekdays only). Please put "HNSC 4120" in the subject line and use professional language. <i>Note:</i> All email communication must conform to the Student Email Policy at <a href="https://umanitoba.ca/registrar/student-email-policy">https://umanitoba.ca/registrar/student-email-policy</a>

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## Course Description

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### U of M Course Calendar Description

The preparation and presentation of a report based on a survey of the literature or on a laboratory investigation of an approved topic (3 credit hours).

HNSC 4120 is an independent study course. While Dr. Rosell is the course coordinator, each student will be assigned a direct academic supervisor. The academic supervisor will direct the specific, day-to-day activities undertaken by the student, including the finalization of the specific research topic.

### **Course Learning Objectives**

1. To provide senior students the opportunity to apply their knowledge and skills to research.
2. To enable the student to learn in a self-directed manner while under the supervision of an experienced researcher.
3. To provide students with research experience in reviewing scientific literature, formulating questions, obtaining laboratory skills and writing a major report or a manuscript.
4. To provide opportunity for students to verbally communicate their main results in either a PowerPoint presentation or a poster presentation.

#### **Foundational Knowledge Content Areas for Dietetics Education:**

The Undergraduate Dietetics program is an accredited program by the Partnership for Dietetic Education and Practice (PDEP) and prepares students for eligibility for registration with a provincial dietetics regulatory body. The program is designed to meet the Integrated Competencies for Dietetic Education and Practice (ICDEP). Following are the foundational knowledge areas that this course is designed to meet towards the ICDEP.

*Highest level achieved: 1= demonstrate broad knowledge; 2= demonstrate comprehension; 3 = analyze, interpret and apply knowledge*

Content Area	Foundational Knowledge	Cognitive Complexity Level
<b>Communication</b>	Strategies for effective written communication	3
	Strategies for effective oral communication	3
<b>Research and Evaluation</b>	Theoretical foundations of research	1
	Qualitative, quantitative and mixed methodologies	2
	Ethics in research	2
	Evidence-informed practice	2
	Literature search strategies	2
	Systematic review and critical appraisal of literature	2
	Use of technology to seek and manage information	3

#### **Course Options:**

Option One: An in depth comprehensive literature review based thesis project.

Option Two: A laboratory based (biochemical laboratory or a survey nature) thesis project.

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## Using Copyrighted Material

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Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and university guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the *Copyright Act* applies or written permission has been confirmed. For more information, see the University's Copyright Office website at <http://umanitoba.ca/copyright/> or contact [um\\_copyright@umanitoba.ca](mailto:um_copyright@umanitoba.ca).

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## Course Technology

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It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. All assignments will be submitted through UM Learn. You can access UM Learn from the University of Manitoba homepage: [www.umanitoba.ca](http://www.umanitoba.ca). For login assistance, visit the [UM Learn Resources Page](#) or contact **IST Service Desk** at [servicedesk@umanitoba.ca](mailto:servicedesk@umanitoba.ca) or (204) 474-8600. Please run a system check at (<https://universityofmanitoba.desire2learn.com/d2l/systemCheck>) to verify that your system is configured properly.

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## Expectations: I Expect You To

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### Class Communication:

You are required to obtain and use your University of Manitoba email account for all communication between yourself and the university. All communication must comply with the Electronic Communication with Student Policy:  
[http://umanitoba.ca/admin/governance/governing\\_documents/community/electronic\\_communication\\_with\\_students\\_policy.html](http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html).

### Academic Integrity:

Each student in this course is expected to abide by the University of Manitoba [Academic Integrity principles](#). Always remember to reference the work of others that you have used. Also be advised that you are required to complete your assignments independently unless otherwise specified. If you are encouraged to work in a team, ensure that your project complies with the academic integrity regulations. You must do your own work during exams. Inappropriate collaborative behavior and violation of other Academic Integrity principles, will lead to the serious disciplinary action. Visit the [Academic Calendar](#), [Student Advocacy](#), and [Academic Integrity](#) web pages for more information and support.

### Student Accessibility Services:

The University of Manitoba is committed to providing an accessible academic community. [Students Accessibility Services \(SAS\)](#) offers academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

Student Accessibility Services  
520 University Centre  
Phone: (204) 474-7423  
Email: [Student\\_accessibility@umanitoba.ca](mailto:Student_accessibility@umanitoba.ca)

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### Expectations: You Can Expect Me To

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- To be respectful and to motivate you in the research environment.
- To encourage your critical thinking and analysis of research, developing a research topic.
- To share my enthusiasm and passion for research, deepening the knowledge in a topic through research analysis and identifying the gaps for future research.
- To share my knowledge about communicating science with peers.
- To be available for booking appointments and answering questions by email.
- To return graded assignments to students within 2-3 weeks from the date of submission. You will be able to access your grades and feedback on UM Learn.

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### COURSE EVALUATION

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The marks for this course will be based on a combination of written and oral assignments, designed to guide you through the research process.

#### Expectations and Guidelines:

##### Option One and Two

Students completing an in depth comprehensive study of a topic in foods or nutrition should follow the instructions of their Research Advisor. However, the following **general expectations** should be considered:

1. The topic should not be an extension of previous academic assignments or research laboratory that is already “written-up” and contributed to course credit.
2. The topic could be linked to previous work that was conducted in the research laboratory (e.g., a summer research project) or a course already completed (for example a topic that was covered briefly) that was never written-up as a comprehensive report or the topic researched in comparable depth.

Guidelines (Suitable for both an in depth literature review or laboratory experience)

#### Literature Review:

The literature review is important as it: 1) clarifies/defines the purpose of the area of study; 2) summarizes previously published literature on the topic; and 3) identifies contradictions, gaps, inconsistencies and opportunities in the literature, that could guide future research.

Provide an in-depth review of the scientific literature pertaining to your research area.

This review should include:

- A cover page with title, student name and identification number, course number and advisor
- The in depth literature review should be handled similar to a meta-analysis (although advanced statistical assessment is not required at this level) and thus will include methodology, and the discussion of previously published literature.
- For this assignment, include a table summarizing key findings of the primary journal articles you review.

- Do not exceed 25 written pages double-spaced with margins of one inch and a font size not less than 11. The page limit does not include title page, abstract and references. Please review the evaluation criteria for additional guidelines (Appendix IV).

### Manuscript:

For the manuscript, include a copy of the author's guidelines for the proposed peer-reviewed journal you are following. Document should include the following:

- A cover page with title, student name and identification number, course number and advisor
- An abstract (250-word limit)
- Body of the Paper:
  - An introduction
  - Hypothesis and Objectives
  - Materials & Methods
  - Results (text, table and figures)
  - Discussion (either separate or merged with results)
  - Conclusion
- References
  - Primary references as the main source of information, secondary references permitted on a smaller scale of contribution. Please format references using a consistent style (i.e., AMA, APA, etc).
- Please review the evaluation criteria for specific guidelines (Appendix V).

### Important Dates:

Sept. 20, 2023: Submit electronic copies of Appendix I & II to the Course Coordinator and the Faculty of Agricultural & Food Sciences Student Services (Term 1 Only or Span Terms 1 & 2)

## Grading

The marks for this course will be based on a combination of written and oral assignments, designed to guide you through the research process.

Due Date:	Assessment Tool	Value of Final Grade
Oct. 20, 2023/Mar. 04, 2024 –11:59 pm	Proposal (Appendix III)	20%
Nov. 30, 2023/Mar. 21, 2024-11:59 pm	Completion of data collection	
Dec. 12, 2023/Apr. 18, 2024 – 11:59 pm	Final report	50%
Dec. 16, 2023/Apr. 22, 2024 - 11:59 pm	Oral presentation	20%
Dec. 16, 2023/Apr. 26, 2024- 11:59 pm	Supervisor evaluation	10%

## Grading

Letter Grade	Percentage out of 100	Grade Point Range	Final Grade Point
A+	90-100	4.25-4.5	4.5

A	80-89	3.75-4.24	4.0
B+	76-79	3.25-3.74	3.5
B	70-75	2.75-3.24	3.0
C+	65-69	2.25-2.74	2.5
C	60-64	2.0-2.24	2.0
D	50-59	Less than 2.0	1.0
F	Less than 50		0

### Voluntary Withdrawal

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Fall Term 2023: Last day to drop the class and receive 100% refund is September 21, 2023 and the last day to withdraw with no refund is November 22, 2023.

Winter Term 2023: Last day to drop the class and receive 100% refund is January 21, 2024 and the last day to withdraw with no refund is March 23, 2024.

Spanned Terms 1 & 2 (2023/2024): Last day to drop the class and receive 100% refund is September 21, 2023 and the last day to withdraw with no refund is January 20, 2024.

Students who did not drop the course by the deadline would be assigned a final grade. The withdrawal courses will be recorded on official transcript. Please refer to the [Registrar's Office](#) web page for more information. I am willing to discuss your progress and strategies for improvement prior the withdrawal date.

### Referencing Style

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Assignments should use the APA reference style as outlined in the text: American Psychological Association. (2020). *Publication Manual of the American Psychological Association* (7th ed.). Washington, DC.

### Assignment Feedback

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- To return graded assignments to students within 2-3 weeks from the date of submission. You will be able to access your grades and feedback on UM Learn.

### Assignment Extension and Late Submission Policy

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- Be sure that you plan your time accordingly throughout the term to meet your timelines.
- Inform the Research Advisor and Course Coordinator promptly if you are having difficulty connecting to the online system and submitting your assignments.
- Contact the Research Advisor and Course Coordinator by email to inform of any missed work/assignments and the need for extensions.

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## UNIVERSITY SUPPORT OFFICES & POLICIES

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### Schedule "A"

**Section (a):** A list of academic supports available to Students, such as the Academic Learning Centre, Libraries, and other supports as may be appropriate

### **Writing and Learning Support**

The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor's feedback.

These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: <http://umanitoba.ca/student/academiclearning/>

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 205 Tier Building.

### **University of Manitoba Libraries (UML)**

As the primary contact for all research needs, your liaison librarian can play a vital role when completing academic papers and assignments. Liaisons can answer questions about managing citations, or locating appropriate resources, and will address any other concerns you may have, regarding the research process. Liaisons can be contacted by email or phone, and are also available to meet with you in-person. A complete list of liaison librarians can be found by subject: <http://bit.ly/WcEbA1> or name: <http://bit.ly/1tJ0bB4>. In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the following: <http://bit.ly/1sXe6RA>. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries' homepage: [www.umanitoba.ca/libraries](http://www.umanitoba.ca/libraries).

**Section (b):** Statement regarding mental health that includes referral information

**For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.**

#### **Student Counselling Centre**

Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. *Student Counselling Centre:* <http://umanitoba.ca/student/counselling/index.html>

474 University Centre or S207 Medical Services

(204) 474-8592



**Student Support Case Management**

Contact the Student Support Case Management team if you are concerned about yourself or another student and don't know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team.

*Student Support Intake Assistant* <http://umanitoba.ca/student/case-manager/index.html>

520 University Centre

(204) 474-7423

**University Health Service**

Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation.

*University Health Service* <http://umanitoba.ca/student/health/>

104 University Centre, Fort Garry Campus

(204) 474-8411 (Business hours or after hours/urgent calls)

**Health and Wellness**

Contact our Health and Wellness Educator if you are interested in information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault.

*Health and Wellness Educator* <http://umanitoba.ca/student/health-wellness/welcome-about.html>

[britt.harvey@umanitoba.ca](mailto:britt.harvey@umanitoba.ca)

**Live Well @ UofM**

For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site:

<http://umanitoba.ca/student/livewell/index.html>

**Section (c): Notice with respect to copyright**

All students are required to respect copyright as per Canada's *Copyright Act*. Staff and students play a key role in the University's copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community. Visit <http://umanitoba.ca/copyright> for more information.

**Section (d):** Statement directing the student to University and Unit policies, procedures, and supplemental information available on-line

**Your rights and responsibilities**

As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University

and the regulations that are specific to your faculty, college or school.

The [Academic Calendar](http://umanitoba.ca/student/records/academiccalendar.html) <http://umanitoba.ca/student/records/academiccalendar.html> is one important source of information. View the sections *University Policies and Procedures* and *General Academic Regulations*.

While all of the information contained in these two sections is important, the following information is highlighted.

- If you have questions about your grades, talk to your instructor. There is a process for term work and final **grade appeals**. Note that you have the right to access your final examination scripts. See the Registrar's Office website for more information including appeal deadline dates and the appeal form <http://umanitoba.ca/registrar/>
- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the **Academic Integrity** regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support <http://umanitoba.ca/academicintegrity/> View the **Student Academic Misconduct** procedure for more information.
- The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected to conduct yourself in an appropriate respectful manner. Policies governing behavior include the:

### Respectful Work and Learning Environment

[http://umanitoba.ca/admin/governance/governing\\_documents/community/230.html](http://umanitoba.ca/admin/governance/governing_documents/community/230.html)

**Student** **Discipline**  
[http://umanitoba.ca/admin/governance/governing\\_documents/students/student\\_discipline.html](http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html) and,

**Violent** **or** **Threatening** **Behaviour**  
[http://umanitoba.ca/admin/governance/governing\\_documents/community/669.html](http://umanitoba.ca/admin/governance/governing_documents/community/669.html)

- If you experience **Sexual Assault** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at: [http://umanitoba.ca/admin/governance/governing\\_documents/community/230.html](http://umanitoba.ca/admin/governance/governing_documents/community/230.html) More information and resources can be found by reviewing the Sexual Assault site <http://umanitoba.ca/student/sexual-assault/>
- For information about rights and responsibilities regarding **Intellectual Property** view the policy at: [https://umanitoba.ca/admin/governance/governing\\_documents/community/235.html](https://umanitoba.ca/admin/governance/governing_documents/community/235.html)

For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site <http://umanitoba.ca/faculties/>

Contact an **Academic Advisor** within our faculty/college or school for questions about your academic program and regulations <http://umanitoba.ca/academic-advisors/>

### **Student Advocacy**

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.

<http://umanitoba.ca/student/advocacy/>

520 University Centre; 204 474 7423; [student\\_advocacy@umanitoba.ca](mailto:student_advocacy@umanitoba.ca)

**APPENDIX I****Guidelines for Selection of Type and Conduct of Thesis**

Student/Trainee:

Date:

Student's Telephone:

e-mail:

Advisor's Name (if any):

e-mail:

Course Registration (check one):

Term 1 Term 2 Terms 1 & 2 

Undergraduate Student or Special Student:

Expected Graduation Date:

Topic Title (not mandatory):

**Please check the box that applies to you:**

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**Option One**

I wish to conduct a written thesis based on an in depth comprehensive study of a topic in foods and/or nutrition of interest to myself and I have secured a research advisor.

**Option Two**

I wish to conduct a laboratory based (biochemical "wet" laboratory or "dry" laboratory of a survey nature) thesis project within foods and/or nutrition of interest to myself and I have secured a research advisor who is willing to fund and supervise my work in the laboratory.

**GUIDELINES:**

- **Appendix 1 and Appendix II** – Email to Student Services and the Course Coordinator. Early submission of these forms will facilitate the registration process.
- **Appendix II** - Research Advisor provides brief letter of support for supervising the student for a specified Senior Thesis project.
- **Appendix III** – Deliver to the Course Coordinator. The student (in consultation with the research advisor) provides a summary of the thesis project (limited to one page single-spaced) and a timeline for completion of the project during the semester(s) that the work will be accomplished. This could be the fall or winter semester or spread out over both.

## APPENDIX II

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### Letter of Support from Research Advisor(s)

**Note: This form must be signed by the Research Advisor before submission to Student Services, Faculty of Agricultural and Food Sciences and the HNSC 4120 Course Coordinator.**

**Date:**

**TO:** Dr. Cristina M. Rosell

Student Services

**FROM:**

Research Advisor Signature: \_\_\_\_\_

**RE:** Senior Thesis Supervision

**APPENDIX III**

**Summary of the Project and Time Frame for Senior Thesis**

- Email a copy to the Course Coordinator (Dr. Rosell).
- The summary of the project is limited to 250 words.

Student/Trainee:

Date:

**SUMMARY of THESIS PROJECT**

**APPENDIX IV  
Literature Review Evaluation Form**

**(For use by Research Advisor(s) and Course Coordinator)**

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

Advisor’s Name: \_\_\_\_\_ Signature: \_\_\_\_\_

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

<b>SECTION</b>	<b>RATING (5=HIGH)</b>
<b>Content</b>	
1) Title of paper reflects content of paper	1 2 3 4 5
2) Abstract concisely summarizes paper	1 2 3 4 5
3) Clear thesis stated to guide paper and reader	1 2 3 4 5
4) Appropriate number of journal articles reviewed	1 2 3 4 5
5) Articles reviewed are current and relevant	1 2 3 4 5
6) Research is adequately reviewed and discussed	1 2 3 4 5
7) Key terms defined in the paper	1 2 3 4 5
8) Table summarizing primary/original research literature is provided	1 2 3 4 5
9) Table is completed thoroughly and accurately	1 2 3 4 5
10) Nutritional implications are discussed	1 2 3 4 5
<b>Organization</b>	
13) Introduction to paper provided	1 2 3 4 5
14) Body of paper divided into relevant required sections	1 2 3 4 5
15) Sections are clearly linked to one another	1 2 3 4 5
16) Paper is appropriate in length (25 pages of text)	1 2 3 4 5
17) Sections are clear and paper easy to follow	1 2 3 4 5
<b>Style</b>	
18) Title page formatted per guidelines (title, author’s name, student ID, 250 word abstract and 3-5 key words)	1 2 3 4 5
19) Manuscript formatted correctly (size 12 font, single-sided, justified, numbered pages and 1 inch margins). Only tables/figures can be size 10 font and single spaced	1 2 3 4 5
20) References within text and end list formatted correctly	1 2 3 4 5
<b>TOTAL (100 points)</b>	

***General Comments***

**APPENDIX V  
Manuscript Evaluation Form**

**(For use by Research Advisor(s) and Course Coordinator)**

Student Name:

Student ID:

Advisor's Name:

Signature: \_\_\_\_\_

Date:

Section of Manuscript	Comment(s)	Grade
<b>Abstract</b> – consider all critical aspects addressed within word limit, completeness, accuracy of data, appropriate conclusion(s).		/10
<b>Introduction</b> – consider completeness of the review, accurate use of research reports, up-to-date/current, ability to integrate knowledge and formulate objectives and hypotheses.		/20
<b>Methods</b> – consider completeness and clarity. Proper citing of references and methodology. Explains choice of methodology. Statistical approach including sample size as appropriate.		/20
<b>Results</b> – consider presentation in text, tabular or graphic form. Flow of thought from outcome to outcome. Accuracy of data including significant figures (decimal places).		/20
<b>Discussion</b> – consider interpretation relative to what is known, implications, limitations of research, summary/conclusions.		/20
<b>Presentation</b> - including grammar, spelling, style		/10
<b>Total</b>	Overall:	/100