

Course Outline – FN3342B: Advanced Food Science

School of Food and Nutritional Sciences

General Information

Course #: **FN3342B**

Section #:

Lecture 530	Tuesday	8:30am-11:30am	BR-2001A
Lab 531	Thursday	8:30am-11:30am	BR-2006
Lab 533	Monday	11:30am-2:30pm	BR-2006

Term: Winter

Year: 2020

Course Day and Time: **Tuesday 8:30am-11:30am**

Course Location: **BR-2001A**

Instructor Information

Name: Dr. Shari Hekmat

E-mail: hekmat@uwo.ca

Telephone number: 519-432-8353 Ext. 28227

Office hours for students: By appointment

Office location: Academic Pavilion 2009

CA or Lab Instructor Information

Name: Jessica White

E-mail: jwhit44uwo.ca

Telephone number for office appointments: TBA

Office hours for students: TBA

Office location: Academic Pavilion 1011 or UH210

Course Description

Selected processing methods and their effect on the nutritive value and acceptability of a product; properties and uses of food carbohydrates, fats and enzymes used in the food industry. Emphasis will be placed on the knowledge of processing methods and their effects on the nutritive values and acceptability of a product, the chemical properties and uses of carbohydrate, fat and protein in food preparation and in the food industry. Food processing, chemistry and analysis will be stressed in the food lab.

Prerequisite(s): Chemistry 2003A/B or Chemistry 2213A/B and Foods and Nutrition 2232.

*Students who enrolled in the HSp Nutr Diet prior to fall 2019 will be able to complete the module with the previous modular requirements and pre-requisites listed.

Extra Information: 3 lecture hours, 3 laboratory hours.

Lab Fees: \$45.00 per student

Lab Requirements: Lab Coat or White Uniform

(A receipt for payment of laboratory fees must be submitted to the instructor by the end of the third week of classes in order to continue in the course.)

Required Course Materials

Hekmat, S. 2020. Advanced Food Science Laboratory Manual.

Optional Course Materials

1. Nielsen, S. 2017. Food Analysis. 5th edition.
2. Kodali, D. R. 2014. Trans Fats Replacement Solution.
3. Cruz, R. M. S., Khmelinskii, I., Vierira, M. C. 2014. Methods in Food Analysis.
4. Delgado, A. M., Almeida, M. D. V., and Parisi, S. 2017. Chemistry of the Mediterranean Diet.
5. Hosseinian, F., Oomah, B. D., and Campos-Vega, R. 2017. Dietary Fiber Functionality in Food and Nutraceuticals from Plant to Gut.
6. Preedy, V. R. 2015. Processing and Impact on Active Components.
7. Topp, E. and Howard, M. 2017. The Complete Book of Small- Batch Preserving.
8. Lawrence, M. 2013. Food Fortification.
9. Redman, N. E. and Morrone, M. 2017. Food Safety. 3rd edition.
10. Institute of Medicine, National Research Council of the National Academes. 2003. Scientific Criteria to Ensure Safe Food.
11. Sun, D. 2016. Computer Vision Technology for Food Quality.
12. Pawsey, R. K. 2002. Case Studies in Food Microbiology for Food Safety and Quality.
13. Damodaran, S. and Paraf, A. 1997. Food Proteins and their Applications.
14. Mazza, G. 2002. Functional Foods: Biochemical and Processing Aspects.
15. Satin, M. 2006. Food Irradiation: A Guidebook. 2nd ed.
16. Barbosa-Canovas, G. V. 1995. Food Preservation by Moisture Control.
17. Akoh, C. C. and Min, D. B. 2008. Food Lipids, Chemistry, Nutrition and Biochemistry.
18. Zapsalis, C. and R. A. Beck. 1986. Food chemistry and Nutritional Biochemistry. Framingham, Massachusetts. John Wiley & Sons Inc.
19. Cliver, D.O. 2002. Foodborne Disease. San Diego, Calif.
20. Sim, D. S., S. Nakai and Guenter, W. 1999. Egg Nutrition and Biotechnology.

21. Whitaker, J. R. 1994. Principles of Enzymology for Food Sciences.
22. Vieira, E. R. 1997. Elementary Food Science, New York: Van Nostrand Reinhold.

Learning Outcomes

Upon successful completion of this course, students will be able to demonstrate the Brescia Competencies as follows:

- 1) Recognize and appreciate the modern food technology used in food processing and food preservation (Critical Thinking, Inquiry and Analysis, Level 4)
- 2) Acquire information on food microbiology and safety (Critical Thinking, Inquiry and Analysis, Problem Solving, Level 4)
- 3) Study the importance of carbohydrate, fat and protein in product formation (Critical Thinking, Inquiry and Analysis, Problem Solving, Level 4)
- 4) Demonstrate their acquired knowledge of food processing, food preservation, food microbiology, food safety and food composition in written midterm and final exams (Critical Thinking, Inquiry and Analysis, Problem Solving, Level 4)
- 5) Research, design and conduct a questionnaire on an assigned food science topic as a group project (Critical Thinking, Self-Awareness and Development, Social Awareness and Engagement, Level 4)
- 6) Describe and discuss the questionnaire results through a group presentation and written report (Critical Thinking, Self-Awareness and Development, Social Awareness and Engagement, Interpersonal Communication, Level 4)

Brescia Competencies

Critical Thinking

The ability to engage in thinking characterized by the rational, informed, independent, and open-minded exploration of issues, ideas, and events before accepting or formulating a conclusion.

Inquiry & Analysis

The ability to ask questions, examine issues, and reach informed conclusions by breaking down complex issues, exploring evidence, and describing relationships among persons, things, or events.

Problem Solving

The ability to create and execute a strategy to answer a question or achieve a goal. Includes being able to anticipate the consequence of a potential solution, select a strategy among several alternatives, and decide when an acceptable outcome has been reached.

Self-Awareness and Development

The ability to draw meaning, knowledge and value from honest and fair reflection and self-evaluation. Students can recognize their emotions and patterns of thinking, their impact on others, and make a commitment to personal growth.

Social Awareness and Engagement

The ability to respect and be open to diversity (e.g. cultural, religious, political) and social justice. Students take personal responsibility to actively engage in and contribute to creating positive change in local, regional, national, or global communities and societies.

Communication

The ability to exchange information and meaning across cultures, space, and time appropriately and correctly. This competency includes oral, written, and interpersonal communication, and the ability to use current or innovative media.

Teaching Methodology and Expectations of Students

Lectures (in-class and/or on-line), visual aids, discussions, assigned readings and lab experience are all methods used to acquire a knowledge and understanding in certain areas of food and food analysis.

Topics

- 1) Food Microbiology and Safety: Fermentation, Food Spoilage, Food Poisoning
- 2) Food Processing: Canning, Refrigeration, Freezing, Dehydration, Radiation
- 3) Food Chemistry: Carbohydrate, Protein, and Fat Chemistry

Course Specific Policies

- 1) Failure to attend at least 75% of laboratories or studios will result in failure in the laboratory or studio and an "incomplete" in the course. Successful completion of the laboratory/studio will be necessary in order to receive credit in the course.
- 2) Assignments are due at time and date noted. The mark will be reduced by 20% on assignments submitted within seven (7) days of the due time. Assignments submitted after seven days will not be accepted for marking, except with documentation to show a confirmed personal illness or a death in her/his immediate family.
- 3) There will be no make-up mid-term test for a student who has missed a test, except with documentation to show a confirmed personal illness or a death in her/his immediate family.

Copyright and Intellectual Property

PowerPoint lecture slides and notes, lists of readings, in-class activities, assignment guidelines, and other components of the course materials are typically the intellectual property of the instructor. Unauthorized reproduction through audio-recording, video-recording, photographing, sharing on social media, or posting on course-sharing websites is an infringement of copyright and is prohibited. Such action may be considered a Code of Conduct violation and lead to sanctions.

Evaluation

Evaluation Breakdown:

Component	Weight	Date/ Deadline	Learning Outcome	Brescia Competencies
Midterm Exam	25%	Feb. 25, 2020	1,2,4	<i>Communication, Critical Thinking, Inquiry & Analysis, Problem Solving</i>
Lab Test	15%	March 31, 2020	1,2,3	<i>Communication, Critical Thinking, Inquiry & Analysis, Problem Solving</i>
Class Project	10%	Throughout the Semester	1, 2, 5	<i>Critical Thinking, Self- Awareness and Development, Social Awareness and Engagement,</i>
Lab Project	10%	March 23, 26	1, 2, 6	<i>Interpersonal Communication</i>
Final Exam	40%	TBD (Check Final Exam Schedule)	1, 2, 3, 4	<i>Communication, Critical Thinking, Inquiry & Analysis, Problem Solving</i>

Academic Accommodation

For course components worth 10% or more of the total course grade, please see the Academic Policies and Regulations section at the end of this course outline or consult the Academic Calendar.

Course Content

Topics will be covered in the order listed and any dates listed are meant as a guideline.

Weekly Organizer:

Class/Topic	Date	Description	Assignments/Project
		Topics	Class Projects
1	Jan. 7, 2020	Introduction, Microorganisms in Food, Bacteria growth and morphology, Food-borne illnesses, Food spoilage and handling, Food microbiology and fermentation.	Class Exercises
2	Jan. 14, 2020	Classification of food-borne diseases, Food infection and intoxication, HACCP principles, Freezing and concentration, Chilling storage.	Class Exercises
3	Jan. 21, 2020	Methods of freezing and concentration used in food industry, Packaging materials, Factors affecting freezing rate.	Class Exercises, Group Projects, Post-harvest technology, Genetically Modified Organisms
4	Jan. 28, 2020	Canning principles, Food classification, D, F, Z, values used in food industry, Purpose and type of heat processing, Heat penetration, Spoilage of canned foods, Jams and Jelly principles.	Class Exercises, Group Projects, Liquid Nitrogen, Pulse Electric Field for food processing, Artificial Meats and Meat Replacers.
5	Feb. 4, 2020	Principles of dehydration, Heat transfer, Methods of drying used in food industry, Drying rate, Isotherm curve.	Class Exercises, Group Projects, BPA in canned foods, Bio-fuels (food/energy/environment), Organic foods
6	Feb. 11, 2020	Principles of food irradiation, labelling requirements, Application and safety of irradiation, CHO chemistry, Mono-Di-saccharide structures and functions.	Class Exercises, Group Projects, Nitrate in meat, Food Nanotechnology, Ultrasound in food processing
7	Feb. 18, 2020	Spring Reading Week (No Classes)	
8	Feb. 25, 2020	Midterm	
9	March 3, 2020	CHO chemistry, Disaccharide structures and functions, Sugar processing and hydrolysis, Reduction reactions, Sugar alcohols, Polysaccharide structures and functions, Browning reactions.	Class Exercises, Carbohydrate Reactions, Importance of Carbohydrates in Food Industry
10	March 10, 2020	Fats and lipid chemistry, Fatty acids structures and functions, Fat classification and deterioration, Major fats and oils, Processing of fats and oils, Polymorphism of fats.	Class Exercises, Group Projects, Smart food packaging, Dietary poly-phenols, Cannabis in food industry.

11	March 17, 2020	Protein chemistry, Structures and functions, Proteins in food, Protein processing, Denaturation, Hydrolysis, Oxidation and Reduction reactions, Protein analysis, pH and PKa concepts.	Class Exercises, Group Projects, Food allergies, Antioxidants and pro-oxidants, Gut micro flora and health.
12	March 24, 2020	Enzymes used in food industry, Enzyme kinetics, Structures and functions, Enzyme classification, Enzyme inhibitors.	Class Exercises, Group Projects, Gluten free products, Alternative proteins (Insects/chickpeas/pulses).
13	March 31, 2020	Lab Test	

Descriptions:

1. Food processing and its effect on the nutritive value of food:
 - I. Keeping quality of food, spoilage agents, food and micro-organisms.
 - II. Canning - history, acid and low-acid foods, pH-temperature relationship, heat penetration, canning methods, spoilage of canned foods, effects of canning on nutrient retention of canned foods.
 - III. Jelly and related products - gel formation, pectin substances, types of pectin, roles of essential ingredients in gel formation, jelly failure and possible causes.
 - IV. Freezing - effects of freezing on micro-organisms in food, freezing process and methods, pre-treatment of food, physical and chemical changes during freezing, storage and thawing, effect of freezing on the nutrient retention in frozen food.
 - V. Dehydration - changes in food during drying, selection of drying methods and freeze-dehydration, dehydration of coffee, tea, fruits and fruit juice products, and dry milk products, influence of drying in food acceptability and nutrient retention.
 - VI. Radiation - discovery, radioactive decay, unit of radiation, ionizing radiation, radiation effect on micro-organisms and nutrients of food, wholesomeness and acceptability of radiation-stabilized food.
2. Food proteins:
 - I. Type, structure and classification of amino acids and protein, chemical and physical properties of protein, determination of protein in food, meat protein, soy protein and microbial protein.
3. Food carbohydrates:
 - I. Classification, chemistry, structure of cellulose and hemicellulose, crude fibre, browning reaction, sweeteners and sweetness, natural vegetable gums.

4. Food fats:
 - I. Chemistry, properties, processing of fat, commercial fats and oils, rancidity, antioxidants.
5. Food enzymes:
 - I. Distribution of enzymes in food materials, factors affecting enzymatic activity, use of enzymes in food processing, enzymatic browning.
6. Food additives:
 - I. Classification, functions, applications, safety for use, health protection and food laws in Canada.

2019-20 BRESCIA UNIVERSITY COLLEGE ACADEMIC POLICIES AND REGULATIONS

1. POLICY REGARDING ACADEMIC ACCOMMODATION

The complete policy regarding [Accommodation for Illness - Undergraduate Students](http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12) can be found at http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12.

Students who have long-term or chronic medical conditions which may impede their ability to complete academic responsibilities should seek Academic Accommodation through Student Accessibility Services (http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&Command=showCategory&SelectedCalendar=Live&ArchiveID=#Page_10).

Personal commitments (e.g., vacation flight bookings, work schedule) which conflict with a scheduled test, exam or course requirement are **not** grounds for academic accommodation.

Students who experience an illness or extenuating circumstance sufficiently severe to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

1. Submitting a **Self-Reported Absence** form provided that the conditions for submission are met;
2. For medical absences, submitting a **Student Medical Certificate (SMC)** signed by a licensed medical or mental health practitioner;
3. For non-medical absences, submitting **appropriate documentation** (e.g., obituary, police report, accident report, court order, etc.) to their Academic Advisor. Students are encouraged to contact their Academic Advisor to clarify what documentation is acceptable.

Requests for Academic Consideration Using the Self-Reported Absence Portal

Students who experience an unexpected illness or injury or an extenuating circumstance of 48 hours or less that is sufficiently severe to render them unable to meet academic requirements should self-declare using the online Self-Reported Absence portal. This option should be used in situations where the student expects to resume academic responsibilities within 48 hours. Note that the excused absence includes all courses and academic requirements within the up to 48 hours, it is not intended to provide an excused absence from a single course while students fulfill their academic responsibilities in other courses during that time.

The following conditions are in place for self-reporting of medical or extenuating circumstances:

1. Students will be allowed a **maximum of two self-reported absences** between September and April and one self-reported absence between May and August;

2. The duration of the absence will be for a maximum of 48 hours from the time the Self-Reported Absence form is completed through the online portal, or from 8:30 am the following morning if the form is submitted after 4:30 pm;
3. The excused absence will terminate prior to the end of the 48 hour period if the student undertakes significant academic responsibilities (writes a test, submits a paper) during that time;
4. Self-reported absences will **not** be allowed for scheduled final examinations; midterm examinations scheduled during the December examination period; or for final lab examinations scheduled during the final week of term;
5. Self-report absences may **not** be used for assessments worth more than 30% of any course;
6. Any absences in excess of 48 hours will require students to present a Student Medical Certificate (SMC), or appropriate documentation;
7. Students **must** communicate with their instructors **no later than 24** hours after the end of the period covered by the Self-Reported Absence form to clarify how they will fulfil the academic expectations they may have missed during the absence.

Request for Academic Consideration for a Medical Absence

When a student requests academic accommodation (e.g., extension of a deadline, a makeup exam) for work representing 10% or more of the student's overall grade in the course, it is the responsibility of the student to provide acceptable documentation to support a medical or compassionate claim. All such requests for academic accommodation **must** be made through an Academic Advisor and include supporting documentation.

Academic accommodation for illness will be granted only if the documentation indicates that the onset, duration and severity of the illness are such that the student could not reasonably be expected to complete their academic responsibilities. Minor ailments typically treated by over-the-counter medications will not normally be accommodated.

The following conditions apply for students seeking academic accommodation on medical grounds:

1. Students must submit their Student Medical Certificate (SMC) along with a request for relief specifying the nature of the accommodation being requested no later than two business days after the date specified for resuming responsibilities. An SMC can be downloaded from http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf ;
2. In cases where there might be an extended absence or serious issue, students should submit their documentation promptly and consult their Academic Advisor for advice during their recovery period;
3. Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, scheduled tests or examinations, and other academic requirements;
4. Students **must** communicate with their instructors **no later than 24 hours** after the end of the period covered by the SMC to clarify how they will fulfil the academic expectations they may have missed during the absence;
5. Appropriate academic accommodation will be determined by the Dean's Office/Academic Advisor in consultation with the course instructor(s). Academic accommodation may include extension of deadlines, waiver of attendance requirements, arranging Special Exams (make-ups), re-weighting course requirements, or granting late withdrawal without academic penalty.

The [full policy on requesting accommodation due to illness](#) can be viewed at:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12

2. ACADEMIC CONCERNS

If you feel that you have a medical or personal challenge that is interfering with your work, contact your instructor and Academic Advisor as soon as possible. Problems may then be documented and possible arrangements to assist you can be discussed at the time of occurrence rather than on a retroactive basis. Retroactive requests for academic accommodation on medical or compassionate grounds are not normally considered.

If you think that you are too far behind to catch up or that your work load is not manageable, you should consult your Academic Advisor. If you consider reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines; please refer to the [Registrar's website](#), <http://brescia.uwo.ca/academics/registrar-services/> or the list

of official sessional dates in the Academic Calendar (<http://www.westerncalendar.uwo.ca/SessionalDates.cfm?SelectedCalendar=Live&ArchiveID=>).

You should consult with the course instructor and the Academic Advisor who can help you consider alternatives to dropping one or more courses. *Note that dropping a course may affect OSAP eligibility and/or Entrance Scholarship eligibility.*

3. ABSENCES

Short Absences: If you miss a class due to a minor illness or other problems, check your course outline for information regarding attendance requirements and make sure you are not missing a test or assignment. Cover any readings and arrange to borrow notes from a classmate. Contact the course instructor if you have any questions.

Extended Absences: If you have an extended absence, you should contact the course instructor and an Academic Advisor. Your course instructor and Academic Advisor can discuss ways for you to catch up on missed work, and arrange academic accommodations if appropriate and warranted.

It is important to note that the Academic Dean may refuse permission to write the final examination in a course if the student has failed to maintain satisfactory academic standing throughout the year or for too frequent absence from the class or laboratory

(http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=5&SelectedCalendar=Live&ArchiveID=#SubHeading_68).

4. SCHOLASTIC OFFENCES

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence at:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_20.

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences. Note that such offences include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course in the University or elsewhere. Students are advised to consult the section on Scholastic Discipline for Undergraduate Students in the Academic Calendar.

If you are in doubt about whether what you are doing is inappropriate or not, consult your instructor, the Academic Dean's Office, or the Registrar. A claim that "you didn't know it was wrong" is not accepted as an excuse.

The penalties for a student guilty of a scholastic offence (including plagiarism) include refusal of a passing grade in the assignment, refusal of a passing grade in the course, suspension from the University, and expulsion from the University.

Plagiarism:

Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Computer-marked Tests/exams:

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating. Software currently in use to score computer-marked multiple-choice tests and exams performs a similarity review as part of standard exam analysis.

5. PROCEDURES FOR APPEALING ACADEMIC EVALUATIONS

All appeals of a grade must be directed first to the course instructor. If the student is not satisfied with the decision of the course instructor, a written appeal is to be sent to the School Chair. If the response of the Chair is considered unsatisfactory to the student, they may then submit a written appeal to the Office of the Dean. If the student is not satisfied with the decision of the Dean, they may appeal to the Senate Review Board Academic (SRBA), if there are sufficient grounds for the appeal and if the matter falls within the jurisdiction of the SRBA. For information on academic appeals consult your Academic Advisor or see the Student Academic Appeals – Undergraduate in the Academic Calendar

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_14.

Note that final course marks are not official until the Academic Dean has reviewed and signed the final grade report for the course. If course marks deviate from acceptable and appropriate standards, the Academic Dean may require grades to be adjusted to align them with accepted grading practices.

6. PREREQUISITES

Unless you have either the prerequisites for a course or written special permission from the Dean to enroll in it, you will be removed from the course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisite(s).

7. SUPPORT

Support Services

The Brescia University College Registrar's website, with a link to Academic Advisors, is at <http://brescia.uwo.ca/academics/registrar-services/> . Students can access supports through Brescia's Student Life Centre (<http://brescia.uwo.ca/life/student-life/>) and Learning Skills Services at Western (<https://www.uwo.ca/sdc/learning/>)

Mental Health and Wellness

Students may experience a range of issues that can cause barriers to your learning, such as increased anxiety, feeling overwhelmed, feeling down or lost, difficulty concentrating and/or lack of motivation. Services are available to assist you with addressing these and other concerns you may be experiencing. You can obtain information about how to obtain help for yourself or others through **Mental Health & Wellness at Brescia** (<http://brescia.uwo.ca/life/mental-health-wellness/>) and **Health and Wellness at Western**, http://uwo.ca/health/mental_wellbeing/index.html.

Sexual Violence

All members of the Brescia University College community have a right to work and study in an environment that is free from any form of sexual violence. Brescia University College recognizes that the prevention of, and response to, Sexual Violence is of particular importance in the university environment. Sexual Violence is strictly prohibited and unacceptable and will not be tolerated. Brescia is committed to preventing Sexual Violence and creating a safe space for anyone in the Brescia community who has experienced Sexual Violence.

If you or someone you know has experienced any form of Sexual Violence, you may access resources at <http://brescia.uwo.ca/life/sexual-violence/>.

Portions of this document were taken from the Academic Calendar, the Handbook of Academic and Scholarship Policy and the Academic Handbook of Senate Regulations. This document is a summary of relevant regulations and does not supersede the academic policies and regulations of the Senate of the University of Western Ontario.