

THE UNIVERSITY OF WESTERN ONTARIO

BRESCIA UNIVERSITY COLLEGE

SCHOOL OF FOOD AND NUTRITIONAL SCIENCES

Foods & Nutrition 4440A

Food and Nutrition-Current Issues in Food Science and Technology
Section 530

Course Director: Dr. Latifeh Ahmadi
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Office Hours: By appointment

Class location and hours: TBA

Prerequisite(s): Foods and Nutrition 2232. Registration in the Foods and Nutrition modules (Honors Specialization, Specialization, Major).

Course Description: Examines current issues in Food Science and Technology, involving a review of existing literature on functional foods, nutraceuticals, and food additives. Emphasis on regulatory issues, safety and efficacy of specific functional foods. Examines food waste or by-product management, a critical factor in recycling valuable food components.

Learning Objectives:

On successful completion of this course students contributes to acquisition of the Brescia Competencies of Communication, Critical Thinking, Inquiry and Analysis, and problem Solving.

In addition, students will:

- 1) Examine current issues in Food Science and Technology, involving a review of existing literature on edible oil resources, packaging materials, and food additive (Critical Thinking)
- 3) Recognize the regulatory issues, safety and efficiency of specific category of foods (Inquiry and Analysis)
- 4) Show food waste or by-product management, a critical factor in recycling valuable food components (Critical Thinking; Problem Solving)
- 5) Research and explain an assigned current issue in food

science through an individual project and presentation (Critical Thinking; Inquiry and Analysis; and problem Solving).

Stress: Emphasis will be placed on recognizing the current issues in food science and technology and an overview of the current status of food safety, waste and by-product management.

Approach: Lectures, Literature reviews, discussions, visual aids, assigned readings and presentations are all methods used to acquire knowledge and understanding of current issues in Food Science and Technology.

TEXTS and Sources (Optional)

1. Trends in Food Science and Technology applications, an official Journal of the European Federation of Food Science and Technology (EFFoST), and the International Union of Food Science and Technology (IUFoST), Elsevier Pub.
 2. Barbosa-Canovas, Gustavo V. Global Issues in Food Science and Technology, 1st ed., 2009, ISBN:9780123741240 (hbk.); ISBN:0123741246 (hbk.)
 3. International Journal of Food Science & Technology, John Wiley & Sons
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4. Shi, J., Mazza, G., and Maguer, M. L. 2002, CRC Pub. Functional Foods: Biochemical and Processing Aspects.
 5. Arvanitoyannis, I. S., Waste management for the food industries, 1st ed., 2008, Amsterdam; Boston: Academic Press
 6. Ames, I., Waste management and utilization in food production and processing. 1995, Council for Agricultural Science and Technology.
 7. Goodman, .L J.; Hawkins, J.N.; Miyabara, T., Food and agricultural waste development projects: planning and management, 1982, New York: Pergamon Press ;Honolulu :East-West Center
 8. Katsuyama, A. M., A Guide for waste management in the food processing industry; 1979, Food Processors Institute, (Washington, D.C.)

9. Fortin, N.D., Hoboken, N.J., Food regulation: law, science, policy, and practice, 2009, John Wiley & Sons
10. Middlekauff, R. D.; Shubik, P., International food regulation handbook: policy, science, law, 1989, New York: M. Dekker
11. Josling, T, Roberts, Donna H.; Orden, D., Food regulation and trade: toward a safe and open global system, 2004, Institute for International Economics (U.S.), Washington, DC

Outline of topics:

- Waste and recycling management
- Water recycling in the food and beverage industry
- Food waste recycling:
 - Waste management of used edible oil
 - Waste management in fruit and dairy industries
- Food regulation and safety:
 - Regulation and safety of food additives in Canada
 - Regulation and safety of functional food in Canada
- The effect of processing and the food matrix on allergenicity of foods
- Smart packaging
- Edible oil
- Insect oil and microbial oil; nutritional and industrial applications
- Commercializing algae as an oil source
- Food nanotechnology, current developments
- Bio-based packaging: Edible films and coatings

- ASSIGNMENTS:** Individual projects and Essay will be discussed at the beginning of the semester.

- Oral presentation**

A presentation (approx. 20 minutes presentation and 5 minutes questions and answers and discuss them; total 20 min) at the assigned session will allow for discussion prior to the assignment being handed in. Oral presentation includes: title, outline, introduction (history and terms definition), objective, body (method, result, gap in knowledge and discussion), conclusion, any suggestion for future work, and acknowledgement.

- Written report**

Essay includes: title page, abstract, introduction, relevant literature (result and discussion depends on your subjects), current gaps in knowledge,

suggestion for future work, conclusion, and references (8 pages, double spaced, except references). The final version of your essay is due on Dec 5th. The suggested format citation guide for the references is J. Food Sci.

Course Website (OWL Sakai)

The course website (<http://owl.uwo.ca> , “FN4440A”) will be our primary method of communication with students. All students in this course need to use OWL to access resources used in this course. All related information (syllabus, lecture material, schedule of lecture topics, announcements, etc.) will be posted on OWL.

MARKING:

Presentation (3×20%) (Oct 3 rd , Oct 31 st , Nov 28 th)	60%
Written report (2×20%) (Dec 5 th)	40%
TOTAL	100%

Specific Course Policies:

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.

For mark components of 10% or higher, any student who misses these requirements can request accommodation from the academic counsellors on medical or non-medical grounds with proper documentation submitted. The academic counsellors will then make the request for accommodation to the faculty as necessary.

2017-18 BRESCIA UNIVERSITY COLLEGE ACADEMIC POLICIES AND REGULATIONS

1. POLICY REGARDING MAKEUP EXAMS AND EXTENSIONS OF DEADLINES

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 her academic responsibilities. Minor ailments typically treated by over-the-counter medications will not normally be accommodated. Documentation shall be

submitted as soon as possible to the student's Academic Advisor indicating the period of illness and when the student should be able to resume academic responsibilities. Students must submit their documentation 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. Appropriate academic accommodation will be determined by the Dean's Office in consultation with the student's instructor(s). Please note that 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.

A UWO Student Medical Certificate (SMC) is **required** if a student is seeking academic accommodation on medical grounds. This documentation should be obtained at the time of the initial consultation with the physician/nurse practitioner or walk-in clinic. A SMC can be downloaded from: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf. The student must request documentation sufficient to demonstrate that her ability to meet academic responsibilities was seriously affected. Please note that under University Senate regulations documentation stating simply that the student "was seen for a medical reason" or "was ill" is **not** adequate to support a request for academic accommodation.

Whenever possible, requests for academic accommodation should be initiated in advance of due dates, examination dates, etc. Students must follow up with their professors and Academic Advisor in a timely manner.

The full policy on requesting accommodation due to illness can be viewed at: <http://westerncalendar.uwo.ca/2017/pg117.html>

2. ACADEMIC CONCERNS

If you feel that you have a medical or personal problem 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 may not be considered.

If you think that you are too far behind to catch up or that your work load is not manageable, you should consult an Academic Advisor. If you consider reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines (refer to the Registrar's website, <http://brescia.uwo.ca/academics/registrar-services/> or the list of official dates <http://westerncalendar.uwo.ca/2017/pg7.html>). 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.*

The 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://westerncalendar.uwo.ca/2017/pg130.html>)

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.

4. POLICY ON CHEATING & ACADEMIC MISCONDUCT

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences. Students are urged to read the section on Scholastic Offences in the Academic Calendar. 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 Academic Misconduct in the Western Academic Calendar.

If you are in doubt about whether what you are doing is inappropriate or not, consult your instructor, the Student Services Centre, 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 (see Scholastic Offence Policy in the Western Academic Calendar).

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 signed by the student must be sent to the Department Chair. If the response of the department is considered unsatisfactory to the student, she may then submit a signed, written appeal to the Office of the Dean. Only after receiving a final decision from the Dean may a student appeal to the Senate Review Board Academic. A Guide to Appeals is available from the Ombudsperson's Office, or you can consult an Academic Advisor. Students are advised to consult the section on Student Academic Appeals under Academic Rights and Responsibilities in the Western Academic Calendar (<http://westerncalendar.uwo.ca/2017/pg112.html>).

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 (http://www.uwo.ca/univsec/pdf/academic_policies/exam/evaluation_undergrad.pdf and http://www.uwo.ca/univsec/pdf/academic_policies/exam/finalgrades.pdf).

6. PREREQUISITES

Unless you have either the prerequisites for a course or written special permission from your 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/> . The website for the Student Development Centre at Western is <http://www.sdc.uwo.ca/> .

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 learn more about mental health and wellness at Brescia at <http://brescia.uwo.ca/life/mental-health-wellness/>. Students who are in emotional/mental distress should refer to Mental_Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

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.