

**BRESCIA UNIVERSITY COLLEGE**  
**School of Food & Nutritional Sciences**  
**Foods and Nutrition 4471B - Nutrition and Metabolic Processes**

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**LECTURES:**

Section 530	WEDNESDAY	11:30 AM – 2:30 PM	BR-MRW-153
Section 531	FRIDAY	11:30 AM – 2:30 PM	BR-204

**COURSE SUMMARY**

**DESCRIPTION:** An integrative / in-depth study of nutrient metabolism at the advanced level. Utilization of the major nutrients emphasizing regulatory mechanisms at the organ and cellular levels under various physiological conditions.

**LEARNING OUTCOMES:** Upon successful completion of this course, students will be able to demonstrate the Brescia Competencies of Communication, Critical Thinking, Inquiry and Analysis, Problem Solving, Self Awareness and Development, Social Awareness and Engagement, and Valuing by:

- a. gaining a clearer understanding of the role / function and metabolism of the macro-nutrients and select micro-nutrients under normal physiological conditions (Brescia Competencies: Communication [Level 4], Critical Thinking [Level 3], Inquiry and Analysis [Level 2], Problem Solving [Level 2], Self Awareness and Development [Level 3], and Social Awareness and Engagement [Level 2]).
- b. then integrating this knowledge to analyse the biochemical nature of normal and abnormal (disease) metabolic processes (Brescia Competencies: Communication [Level 4], Critical Thinking [Level 3], Inquiry and Analysis [Level 2], Problem Solving [Level 2], Self Awareness and Development [Level 3], and Social Awareness and Engagement [Level 2]).
- c. demonstrating a better appreciation for the development of disease states and why treatment targets may vary on an individual basis (Brescia Competencies: Communication [Level 4], Critical Thinking [Level 3], Problem Solving [Level 2], Social Awareness and Engagement [Level 2], and Valuing [Level 3]).
- d. gaining stronger critical thinking skills through seminar discussions on current scientific literature (Brescia Competencies: Communication [Level 4], Critical Thinking [Level 3], Problem Solving [Level 2], Self Awareness and Development [Level 4], Social Awareness and Engagement [Level 2]).
- e. developing stronger leadership skills by facilitating seminar discussions and conducting a class lecture (Brescia Competencies: Communication [Level 4] and Self Awareness and Development [Level 4]).

**PREREQUISITES:** Biochemistry 2288A or Biochemistry 2280A, Foods and Nutrition 3344A/B. Registration in the Honors Specialization in Nutrition and Dietetics module.

**APPROACH:** Lectures (3 hrs. per week) based on Textbooks, assigned readings and seminar discussions on current scientific literature.

**TEXTBOOK:** Advanced Nutrition and Human Metabolism (7<sup>th</sup> ed). SS Gropper, JL Smith & JL Groff. Wadsworth Cengage Learning. USA. 2018.

**EVALUATION:**

Assignment	Marks	Brescia Competency
Vitamin/mineral DC course*	10%	Critical Thinking, Self-Awareness and Development
Midterm exam	30%	Communication, Critical Thinking and Problem Solving
Team project	25%	Communication, Critical Thinking, Inquiry and Analysis, Problem Solving, Self-Awareness and Development
Final exam	35%	Communication, Critical Thinking, Problem Solving, Social Awareness and Engagement and Valuing
<b>Total</b>	<b>100%</b>	

\*If students choose not to complete the DC course, an alternative project will be provided.

**LECTURE SCHEDULE**

Week	Date	Content
1	Jan 9/11	Review of course outline Review of key biochemical concepts
2	Jan 16/18	Carbohydrate metabolism
3	Jan 23/25	Carbohydrate metabolism continued
4	Jan 30/Feb 1	Fat metabolism
5	Feb 6/8	Fat metabolism continued <i>DC Vitamin and Mineral course due (10%)</i>
6	Feb 13/15	<i>Midterm exam (30%)</i>
7	Feb 20/22	READING WEEK – No classes
8	Feb 27/Mar 1	Protein metabolism
9	Mar 6/8	Seminar: Obesity's contribution to chronic disease

<b>10</b>	Mar 13/15	Seminar: The role of physical activity in chronic disease prevention
<b>11</b>	Mar 20/22	Seminar: Influence of diet on cardiovascular health
<b>12</b>	Mar 27/29	<i>Independent Group Project work – No class</i>
<b>13</b>	April 3/5	<i>Student presentations (5%) Project due – written and summary components (20%)</i>
	TBA	Final exam (35%) (April 2019 TBA)

## SPECIFIC COURSE POLICIES

**Penalty for late assignments:** Assignments are due at the **beginning of class** on the date specified. There will be a **deduction of 20% of the value of the assignment** for a late submission. NO assignment will be accepted one (1) week after the due date, except for a confirmed personal illness or a death in a student's immediate family.

**Request for re-evaluation:** If you wish to have an assignment re-evaluated, you must follow these steps:

1. Re-read the assignment instructions and carefully review the grading scheme and comments provided.
2. Discuss your interpretation with your team mates, if applicable.
3. If you (and your team mates) still wish to have your assignment re-evaluated, collaboratively prepare a **half-page** written explanation and submit it with your original assignment and marking scheme.
4. Requests for re-evaluations must be submitted within **one week of the assignment being returned**. If you are absent from the class when assignments are returned, make an appointment with the professor to retrieve your assignment. The deadline for submission of a request for re-evaluation is based **solely upon the date the assignment is returned in class**.
5. Remember to communicate respectfully and clearly why you believe a grade should be re-considered. The re-evaluation will be based on the strength of your explanation, as well as the assignment instructions and grading scheme. Please note that, after re-evaluation, your grade could go up, down, or stay the same.

**Copyright:** PowerPoint lecture slides and notes, lists of readings, in-class activities, assignment guidelines, and any other components of the course materials are the **intellectual property of the instructor**. Reproduction through tape-recording, video-recording, photographing, sharing on any social media site, or posting on course-sharing websites is an infringement of copyright and is absolutely **prohibited**. Such action may also be considered a Scholastic Offence, which may lead to sanctions. Further information on Scholastic Offences is available at <http://www.westerncalendar.uwo.ca/2017/pg113.html>

## 2018-19 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.

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. 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. Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. Appropriate academic accommodation will be determined by the Dean's Office/Academic Advisor in consultation with the student's instructor(s). Academic accommodation may include extension of deadlines, waiver of attendance requirements for classes/labs/tutorials, arranging Special Exams or Incompletes, re-weighting course requirements, or granting late withdrawals without academic penalty

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](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.

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](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 (refer to the Registrar's website, <http://brescia.uwo.ca/academics/registrar-services/> or the list of official sessional dates in the Academic Calendar, see the Sessional Dates tab at <http://www.westerncalendar.uwo.ca/index.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](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](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, she may then submit a written appeal to the Office of the Dean. If the student is not satisfied with the decision of the Dean, she may appeal to the Senate Review Board

Academic (SRBA), if there are sufficient grounds for the appeal. For information on academic appeals you can 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](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/>. 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 Health and Wellness at Western, [http://uwo.ca/health/mental\\_wellbeing/index.html](http://uwo.ca/health/mental_wellbeing/index.html), for information about how to obtain help for yourself or others.

### **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/>.

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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.