

Brooklyn College, City University of New York  
Department of Health & Nutrition Sciences

HNSC 7211X (EW6): Micronutrients (3 Credits)  
Spring 2020

***2<sup>nd</sup> Half - Fully Online - March 19<sup>th</sup> to End of Semester \****

*\* This syllabus is subject to change to improve instruction and to comply with updates to the college and university guidelines.*

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CLASS MEETINGS: Wednesday 6:30-9:15 p.m. → ***fully online***

- *Our class will meet together (synchronous) via Blackboard Collaborate\* every Wednesday from 6:30-9:15 p.m. Every student will join the session and we will interact with each other.*
- *[\*\*Platform subject to change for technical reasons that may arise.]*

FINAL EXAM: Wednesday, May 20<sup>th</sup>

[Note: The final exam schedule is set by the college and subject to change.]

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INSTRUCTOR: Amy Marcinkiewicz

E-MAIL: [AMarcinkiewicz@brooklyn.cuny.edu](mailto:AMarcinkiewicz@brooklyn.cuny.edu)

OFFICE HOURS: ***Thursday evenings (times and platforms TBA); also by appointment***

Dept. of Health & Nutrition Sciences: 4123 N; 718-951-5026 (to leave message with dept. staff)

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**PREREQUISITES:** a course in nutrition and a course in biochemistry; or permission of the chairperson.

**COURSE DESCRIPTION:** Physiological regulation of metabolism of vitamins and minerals; effects of deficiencies and excesses.

**COURSE OBJECTIVES:** Upon completion of this course, students will be able to:

1. Recognize the chemical forms of major micronutrients.
2. Describe the digestion, absorption, transport, metabolism and storage of the micronutrients.
3. Explain the regulation of the metabolism of the micronutrients.
4. Discuss the connection between a micronutrient's function and the features of its deficiency signs and symptoms.

**REQUIRED READINGS:**

**Textbook:** Combs, G. F., and McClung, J. P. The Vitamins. Fundamental Aspects in Nutrition and Health. 5th Edition. 2017. Elsevier Academic. Burlington MA. ISBN 9780128029657. List price \$125.00. [E-book ISBN: 9780128029831; older editions may be used.]

- See Brooklyn College Library for 4th edition (9780123819802) available for online reading.

**Other Readings and Resources:** Additional required articles and resources, including videos and animations, will be posted on Blackboard.

## ASSESSMENT AND GRADING:

### Components of Course Grade:

Case Report Project	
- Presentation and Handout	10 points
- Brief Research Paper	<i>10 points</i>
Exam #1	25 points
Exam #2	<i>20 points</i>
Exam #3 (Final Exam)	25 points
<i>Attendance &amp; Participation</i>	<i>10 points</i>
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Total	100 points

### Grading Scale:

A+	*see below
A	93.0-100
A-	90.0-92.9
B+	87.0-89.9
B	83.0-86.9
B-	80.0-82.9
C+	75.0-79.9
C	70.0-74.9
F	below 70

\*Grade of A+ may be given to students who achieve  $\geq 97.0$  plus exceptional attendance and participation. According to the Graduate Bulletin, “The grade of A+ indicates a truly exceptional performance and is rarely given.”

Please note: Grades will be assigned according to the grading scale above (not curved). No revisions of poor work will be accepted. No extra credit assignment will be offered.

### Exams:

Three exams will be given throughout the semester - two midterms plus the final exam. Exams will cover topics presented in class; this includes lectures, class discussions, assigned readings, and student presentations. The general format will include a mixture of multiple-choice questions, naming structures, and short essay questions. To receive full credit, an answer must be comprehensible, thorough, and expressed using appropriate scientific terminology. Exams will be retained by the instructor; students ~~will have 10-15 minutes to review their exams in class and~~ may review their exams individually during office hours.

Although exams are not cumulative, the material builds throughout the semester, so it is important to learn the introductory material. Background knowledge from prerequisite courses is expected, so that material should be reviewed as needed.

*Note: Exam 2 and the Final Exam must be completed on Blackboard. The test experience will be proctored. Recording the test questions and/or answers in any format, including taking notes, recording images, or recording sound, will be considered cheating. Receiving or giving assistance during an exam, or sharing information from tests with classmates, future students, etc., will be considered a breach of academic integrity and reported to the college as required.*

### Case Report Project:

The case report project requires an oral presentation and a brief research paper. The instructor will provide a list of topics to be covered with corresponding presentation dates. To select a topic and date, you must create a thread on the discussion board and upload your case report article for approval. Before proceeding with the research paper, you must add to your thread a basic outline and the articles you want to use so the instructor can give feedback.

Each student will present a unique case report (case study) on their topic (peer-reviewed, primary research, published 2010 or later) which must be approved in advance. You will create a one-page (two sides) handout for the class, including the full citation and published abstract on one

side, and a detailed outline of major points on the other side. Any visual aids (e.g., pictures, diagrams, data tables) *can be added to the handout as an extra page.* ~~to a single PowerPoint slide, uploaded to your thread, and shown during the presentation.~~

*Since these presentations are now given via Blackboard Collaborate, please convert your handout into PowerPoint slides by copying and pasting each section onto a slide. Slide 1 will have your name and the citation and abstract of the case report, slide 2 will have the first section of your handout, and so on. Any visual aids should be added to the relevant slide. You should only have the title slide and 5 content slides, each discussed for about 1 minute each.*

The talk should be planned for about five minutes, followed by class discussion. Other students who are not presenting will be assigned to read one of the case reports in advance and come prepared to ask questions. The presentations will be given ~~in a round table setting~~ during our online class. *A separate discussion board forum will be organized by presentation date, and each student must create their own thread containing TWO attachments - their case report article and their handout which may include visual aids. A copy of the article, handout, and all visual aids must be provided in a packet to the instructor on presentation day. Some students will be assigned to read the case report article and must come prepared with questions for the presenter; this will be factored into your participation grade.*

*Note: The schedule of student presentations must be adjusted. I will assign you to a date based on your topic. If that date is inconvenient for you, you may either find a student to switch with you or record your presentation in advance. If you decide to record it, you will need to schedule a question-and-answer period with the instructor to be held during office hours.*

The brief research paper will be based on the case report. There are many different directions possible from the same case report (e.g., mechanism, clinical trials). Each student must propose an outline and relevant articles and upload them to their thread for feedback. The paper should be 3-5 typed pages, well edited, plus a list of references cited. The articles will be downloaded from the discussion board thread, so no hard copies are needed.

More detailed guidelines will be provided. The case report handout (without visual aids) and the research paper must be submitted to SafeAssign on Blackboard for plagiarism detection. Students will have the opportunity to submit a draft and fix any problems before submitting the final version. Everything must be written in the student's own words and quotation marks are not permitted.

### Attendance & Participation:

Attendance and participation are extremely important in an online format. You must be able to participate using your microphone or by calling into the session using your phone. Participation is required during class time, and also by posting weekly on the discussion board which is meant to maintain communication with your classmates and instructor.

### CLASS POLICIES:

#### Class Attendance and Participation:

Attendance is required at every class meeting and for the full duration. If there is an unavoidable reason that you must miss class, please contact the instructor by email as soon as possible and certainly before the next class meeting. Any student who misses class is responsible for getting the information from a classmate, reviewing the material, and then asking questions as needed.

Regular participation in class is also required. Students should be prepared to discuss assigned readings, review course material already covered, and ask relevant questions when students present to the class. Effective participation also includes asking insightful questions, volunteering information that is pertinent, and answering the instructor's questions.

Individual attendance and participation will be assessed throughout the semester. Students with an outstanding attendance record (no more than one absence or two late arrivals/early departures) will have one course point added to their final grade. Students who participate regularly and appropriately will have one course point added to their final grade.

Please inform the instructor early in the semester of any pre-planned absences. The state law regarding non-attendance because of religious beliefs is noted in the front matter of the *Undergraduate Bulletin* and *Graduate Bulletin*. These may be found on the [Academic Calendars, Course Schedules, and Bulletins](#) page of the Registrar's website.

#### **Missed Exams or Presentation:**

A makeup exam or presentation may be offered if there is a documented medical situation or other qualifying emergency. If you must be absent on an exam day or your presentation day, contact me by email in advance with your reason and plan to provide supporting documentation. If the instructor agrees that a makeup is warranted, you will be expected to complete the exam within one week during office hours or present your case report at the next class meeting. In most cases, a second makeup exam during the semester will be denied.

#### **Policy on Recording Lectures:**

**Recording class lectures is prohibited.** You are expected to pay attention during class and take notes. If something is missed, you are encouraged to get the information from a classmate or ask the instructor. If you have a specific reason for wanting to record lectures, please discuss this with the instructor in advance and it will be considered. If permission is given, the recording must be for individual use only, and it must be properly destroyed once the semester has ended. Under no circumstances may recordings be shared, especially online.

*Update: Blackboard Collaborate should create a recording of our online session which can be shared with the class. The recordings may NOT be shared or distributed under any circumstances.*

#### **Policy on Sharing Materials:**

All lectures and course materials, including *online lecture recordings, discussion board content, PowerPoint presentations, exams, assignments, and the syllabus itself*, are the intellectual property of the instructor and protected by copyright. You may take notes and make copies of course materials for your own use. You may not reproduce or distribute lectures and course materials publicly without my express written consent. **Posting to online commercial sites such as Course Hero is never permitted.** Sharing copyrighted materials may violate the rules and regulations of the college.

#### **Blackboard:**

*Effective use of Blackboard is extremely important in an online format.* You are required to check Blackboard regularly. Announcements will be updated frequently and may contain important information about due dates, exam topics, etc... The course syllabus will be posted on

Blackboard for easy retrieval. Lecture slides will be posted on Blackboard but not always before class. You are expected to take thorough notes during every class meeting.

Emails will be sent from Blackboard regularly. You must confirm that Blackboard has your current email address to avoid missing important information.

### Communication:

Most questions should be asked *during online office hours*. Outside of those times, please post your questions to the appropriate discussion board on Blackboard. If you have something to discuss that is more complex or private, and you are not available during office hours, please email me to arrange *an online conference or phone call*.

Please remember that an email is a letter which requires certain guidelines:

1. Please remember to include your name at the end of your letter. It is very difficult to know who you are from your email address.
2. Your email should contain a subject that describes the content or purpose of the letter and the course number (i.e., HNSC 7211).
3. Please plan in advance and do not rely on immediate responses. I will try to answer questions promptly, but last-minute questions about assignments or exams may not be answered on time. [Please use the discussion board on Blackboard for most questions.]
4. If you have a question about an assignment or which topics you will be tested on, you are expected to check Blackboard first to find the answer.
5. Please note that any email attachments should be PDFs. Word documents will likely cause your email to be quarantined by the Brooklyn College email system and not delivered.

### Academic Honesty:

The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for policy implementation can be found at [www.brooklyn.cuny.edu/bc/policies](http://www.brooklyn.cuny.edu/bc/policies). If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member **MUST** report the violation.

In this class, academic dishonesty on an exam will result in a grade of “0” for that exam. Assignments produced with any type of academic dishonesty will receive a grade of “50” which is a failing grade. Please remember that everything must be written in your own words and that using quotation marks is not allowed.

### Demonstration of Professional Behavior:

Professional behavior is expected at all times. This includes:

1. coming to class prepared. *You should always have any lecture materials downloaded and presentation materials uploaded before class starts.*
2. keeping disruptions to a minimum. *Please minimize background noise, including all phones in silent mode, TVs and radios muted, household noises, pets, etc., as much as possible. You will be able to mute and unmute your microphone as needed. Frequent disruptions*

of any kind will result in a warning and afterward you will lose one-half course point for each additional disruption.

3. behaving in a respectful manner. Please pay attention to what is going on in the online class; your responses are expected. Texting is not permitted. You should speak one at a time and use the “raise hand” feature as needed. Please be very respectful during student presentations! This will factor into your participation grade.
4. communicating as a professional in your field. Show that you are capable of discussing the course material using appropriate terminology and proper pronunciation. Also, all written communication should contain proper grammar and proper spelling.
5. always communicating in a way that is respectful to your instructor and classmates. You are expected to raise your hand before speaking.

#### Center for Student Disability Services:

In order to receive disability-related academic accommodations students must first be registered with the Center for Student Disability Services. Students who have a documented disability or suspect they may have a disability are invited to set up an appointment with the Director of the Center for Student Disability Services, Ms. Valerie Stewart-Lovell at 718-951-5538. If you have already registered with the Center for Student Disability Services, please provide your professor with the course accommodation form and discuss your specific accommodation with him/her.

#### Student Bereavement Policy:

Students who experience the death of a loved one must contact the Division of Student Affairs, 2113 Boylan Hall, if they wish to implement either the Standard Bereavement Procedure or the Leave of Absence Bereavement Procedure. The details of the policy can be found at <http://www.brooklyn.cuny.edu/web/about/initiatives/policies/bereavement.php>. Further information may be obtained from Student Affairs, 718-951-5352, rortiz@brooklyn.cuny.edu.

#### Important Dates - Spring 2020 Semester:

Monday, January 27	First day of Spring 2020 classes
Sunday, February 2	Last day to add a course
March 12 - March 18	Instructional Recess
Wednesday, April 1	Last day to withdraw from a course with a “W” grade
Tuesday, April 7	Conversion Day - Classes follow a Wednesday Schedule
Thursday, May 14	Last day to withdraw from a course with a “W” grade
Friday, May 15	Reading Day
Saturday, May 16	Final Examinations Begin
Friday, May 22	Final Examinations End / End of Spring Semester

The full academic calendar, including many other important dates, is available on the Office of the Registrar’s website.

#### Special Dates for HNSC 7211:

Wednesday, February 12	College Closed
Tuesday, April 7	Conversion Day - Classes follow a Wednesday Schedule
Wednesday, April 8	No Classes - Spring Recess
Wednesday, April 15	No Classes - Spring Recess

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**TENTATIVE CLASS SCHEDULE**

**Overall Plan:** For each nutrient, we will discuss: forms, structures, sources, requirements, absorption, transport, storage, excretion, conversion to active forms, metabolic/genomic functions, mechanisms of action, and states of deficiency and toxicity (when applicable).

**Readings:** For each vitamin, consult the relevant sections in the Combs textbook. For each mineral, see the assigned readings and/or resources provided on Blackboard. Additional readings may be added.

8	3/25	Folate (finish)  Vitamin B12  Vitamin A	Chapter 16  Chapter 17  Chapter 5
9	4/1	Vitamin D  Calcium and Phosphorus	Chapter 6 DRI Report Brief Review articles
10	TUES 4/7	<b><u>EXAM #2</u></b> <b><i>(CONVERSION DAY - CLASSES FOLLOW A WEDNESDAY SCHEDULE)</i></b> <b><i>Vitamin B6, folate, vitamin B12, vitamin A, vitamin D, calcium, phosphorus</i></b>	
<i>Wednesday 4/8: No Classes (Spring Recess)</i> <i>Wednesday 4/15: No Classes (Spring Recess)</i>			
11	4/22	Vitamin K  Vitamin C  <b><i>Student Presentations A (5)</i></b>	Chapter 8  Chapter 9
12	4/29	Vitamin E  Beta-Carotene  Selenium  <b><i>Student Presentations B (6)</i></b>	Chapter 7  Chapter 5  Review article

13	5/6	Iron <i>Student Presentations C (5)</i>	Review articles
14	5/13	Copper Zinc <i>Student Presentations D (5)</i>	Review articles Review articles
	<i>Thurs 5/14</i>	<i>Case Report research papers DUE</i>	
15	5/20	<u><b>EXAM #3 (FINAL EXAM)</b></u> <b><i>Vitamin K, vitamin C, vitamin E, [beta-carotene], selenium, iron, copper, zinc</i></b>	

**Note:** This is a tentative schedule. Topics may be added, deleted, or modified to enhance course objectives. Also, some topics might take more or less than the time allotted.