

INSTRUCTOR: Bidhan Chakraborty, MSc

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OFFICE HOURS: By appointment (email me)

SCHEDULE: Wednesdays 6:05-8:55 PM, PA 115

SYNOPSIS

Factors affecting quality in manufacturing and processing of foods and principles of quality control and quality assurance. Sampling plans and statistical methods. Applications of physical, chemical, biological and microbiological tests in quality control. Quality systems and standards. Introduction to edible cannabis regulation.

COURSE OBJECTIVES

Through this course, students will learn to:

1. **Develop a Preventive Control Plan (PCP)/HACCP plan as per the Safe Food for Canadians Regulation**
 - a. Identify chemical, biological and physical hazards in food manufacturing
 - b. Develop pre-requisite programs
 - c. Write effective standard operating procedures and control sheets
2. **Compare PCP to other global standards**
 - a. Gap analysis between PCP and GFSI
 - b. Validation of own programs
3. **Understand the requirements of edible cannabis regulation**
 - a. Introduction to edible cannabis regulation
 - b. Implementation of conventional PCP to edible cannabis production
4. **Assessing quality against standards**
 - a. Describe standard tests to assess texture, color, composition, shelf life, flavor, etc.
 - b. Apply tests to solve hypothetical scenario
5. **Ability to comprehend and understand other quality principles**
 - a. Understand quality assurance concepts such as The Cost of Quality, Management Commitment, Change Management, etc.
 - b. Apply concepts to critically evaluate case studies
6. **Critically evaluate past and current practices in food quality and food safety**
 - a. Critique Weatherill report (Maple Leafs), XL Foods CFIA Assessment
 - b. Solve scenarios for best possible outcomes

READINGS

No textbook. Readings and online resources will be posted on *cuLearn*.

CLASS FORMAT

Food Quality Control is an applied skill and therefore the class format will rely heavily on your participation and engagement in applicable assignments. In general, I will begin the class by explaining a topic and you will have the opportunity to apply the concepts taught immediately in a group setting. Additionally, you will be given time to work on your assignments in class to ensure comprehension.

Readings and lecture materials should be reviewed prior to class to receive maximal results for learning. Most of our time will be dedicated to applying the concepts by completing classwork and assignments. Therefore, the scheduled class time will be used for hands-on and collaborative work. You should bring a laptop to class and any other material you might need to research and complete your assignments

COURSE ASSIGNMENTS AND GRADING

Learning Objective	Description	Value (%)	Due Date
1	Development of a HACCP plan and standard operating procedures for a hypothetical situation	45%	February 14, 2020
2	Create a validation protocol	15%	March 6, 2020
3	Applying quality tests to solve hypothetical scenarios	10%	March 20, 2020
4	Presentation: Assessing various scenarios using Quality Control Principles	10%	March 27, 2020
5	Critique of Food Safety Reports	10%	April 10, 2020
	Participation and Attendance	10%	

A NOTE ON PARTICIPATION

This 4th year/graduate level class will rely heavily on your participation in in-class activities and assignments. Your engagement and participation will directly correlate to how much you learn in this class and how much you take with you in your career. Browsing the web or texting during scheduled class time for purposes other than completing assignments will not be tolerated. These activities will result in a zero for participation marks.

FIELD TRIP

A field trip to a food manufacturing facility (Healthcare Food Services) is going to be scheduled and the schedule will be shared with the students soon. This field trip has been scheduled outside of class hours and therefore is not mandatory, but your attendance is highly recommended. To be able to see the concepts that will be taught in class first-hand will undoubtedly make it easier for you to understand the course content and will increase your takeaway for the course. It is therefore suggested that you make arrangements so that you can take part in the field trip.

LATE POLICY

Assignments shall be submitted in class. All assignments handed in late will receive a 5% deduction per late day. Late submissions can be handed in to the Undergraduate Programs Administrator, Caitlyn McKenzie (Chemistry office, 203 Steacie Building) where the hand in time will be recorded.

PLAGIARISM AND CHEATING

It is an instructional offense to use or pass off as one's own an idea or product which is the work of another without expressly giving credit to that other. It is also an instructional offense to copy the work of a fellow student. If students do plagiarize or cheat, the Dean's Office will be notified and appropriate action will be taken.

ACADEMIC ACCOMMODATIONS

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your

instructor as soon as possible to ensure accommodation arrangements are made.

carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [**carleton.ca/sexual-violence-support**](http://carleton.ca/sexual-violence-support)

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline

CLASS SCHEDULE

This class schedule is a guide only and may change based on the discretion of the instructor. A more detailed outline will be provided by the first week of classes.

WEEK	DATE	THEME
1	January 8 th , 2020	Intro: Syllabus, etc. HACCP
2	January 15 th , 2020	HACCP
3	January 22 nd , 2020	HACCP
4	January 29 th , 2020	HACCP
5	February 5 th , 2020	HACCP
6	February 12 th , 2020	GFSI
READING WEEK	February 15 th to 23 rd , 2020	
7	February 26 th , 2020	GFSI
8	March 4 th , 2020	TESTING
9	March 11 th , 2020	TESTING
10	March 18 th , 2020	QUALITY MANAGEMENT
11	March 25 th , 2020	QUALITY MANAGEMENT
12	April 1 st , 2020	Edible cannabis regulation
13	April 8 th , 2020	REPORTS