



**Introductory Foods (HTM*2700)
Course Outline, Fall 2013**



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**Lab Technician /
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Course Prerequisite: One of: **Grade 12 (4U) Chemistry (SCH4U)**, Gr. 13 (OAC) Chemistry,
CHEM*1000, CHEM*1040, CHEM*1060 or **CHEM*1100**.

Course Description:

Scientific principles and their application to food preparation and food consumption. An integrated lecture and laboratory approach is used to study the chemical and physical properties of foods.

Course Objectives:

1. Understand and explain the chemical and/or physical changes that take place in food components under various conditions (e.g. the effects water, pH, enzymes, temperature have on food components).
2. Understand and explain how the physical and chemical properties of foods affect their preparation and use.
3. Describe the key elements in food safety including food spoilage and food preservation methods.
4. Demonstrate knowledge of food preparation and processing methods and the application of these methods to specific foods.
5. Demonstrate knowledge and understanding of basic food science literature and develop critical thinking and problem solving skills as well as the ability to apply a working knowledge in real life situations.

In particular, **Applied Human Nutrition** students will develop an appreciation of the importance of appropriate food preparation methods in order to maintain the nutritional quality of foods. An understanding of the physical and chemical properties of foods will be important to AHN students planning to apply for a Dietetic Internship because they must take Restaurant Operations Management (HTM*3090) in 3rd year.

An understanding of the physical and chemical properties of foods in food preparation will be important to **HAF** majors when they take Restaurant Operations Management (HTM*3090) in their 3rd year.

Last to Drop Courses: Thursday, October 31, 2013

Please notify the instructor (Valerie Allen) if you plan to drop this course so that the number of students in lab sections is accurate for supply ordering purposes.

Safe Walk: The midterms in this course are in the evening. Please do **not** walk home alone. If you live on campus call **Safe Walk at ext. 53200**.

Course Structure:

The course format consists of three 50-minute lectures **and** a 2 hour lab each week:

<u>Lectures:</u>	Monday	11:30 - 12:20 pm	MacKinnon Bldg (MACK), Room 117
	Wednesday	11:30 - 12:20 pm	MacKinnon Bldg (MACK), Room 117
	Friday	11:30 - 12:20 pm	MacKinnon Bldg (MACK), Room 117

Labs:

SEC 0101	Monday	1:30 - 3:20 pm	Macdonald Institute (MINS) 214
SEC 0102	Tuesday	10:30 am - 12:20 pm	Macdonald Institute (MINS) 214
SEC 0103	Tuesday	1:30 - 3:20 pm	Macdonald Institute (MINS) 214
SEC 0104	Tuesday	3:30 - 5:20 pm	Macdonald Institute (MINS) 214
SEC 0105	Wednesday	1:30 - 3:20 pm	Macdonald Institute (MINS) 214
SEC 0106	Wednesday	3:30 - 5:20 pm	Macdonald Institute (MINS) 214

Note: Students MAY ONLY ATTEND the laboratory class to which they are assigned at all times throughout the semester. If you will miss or have missed a lab contact Professor Allen or the Course Lab Technician, Alison Crerar, immediately.

The Monday and Wednesday lectures will be theoretical in nature, providing basic theory which will then be applied in the laboratory. The Friday lecture will integrate the theory with the practical applications observed in the lab. Students can expect to spend a **minimum of 6-8 hours per week on the course outside of the lectures and lab**. This time will be needed to prepare for the lab (reading the Laboratory Background Information), reviewing lecture material, doing the Lab Reports and studying for exams.

Required Textbook, Course Pack and Lab Reports:

Allen, V., Introductory Foods Course Package, University of Guelph, **Revised July 2013**.

Allen, V. Introductory Foods Laboratory Report Sheets, University of Guelph, **Fall 2013**.

National Restaurant Association, Advanced FST- Food Safety Training in Canada - 3rd Edition, TrainCan Inc., **2011**.

- ***This Food Safety textbook will be used in HTM*3090 by both HAFA students and by AHN students planning to apply for a Dietetic Internship. It is VERY IMPORTANT that you keep the book and NOT remove the exam score sheet in the front of the book. You will be taking the certification exam as part of HTM*3090.***
- It is recommended that you place your name on the answer sheet immediately to prevent someone from taking and using the sheet as their own.

School of Hospitality and Tourism Management Food Laboratory Policy

This policy:

- 1) sets professional standards for our students when involved in food preparation activities,
- 2) insures consistent food laboratory procedures for all foods courses taught within the School of Hospitality and Tourism Management and
- 3) insures the School is teaching to the highest standard of food safety.
- 4) complies with the recommendations in the Canadian Restaurant and Foodservices Association (CRFA) "Food Safety Code of Practice" and with local health regulations.

The following mandatory procedures apply to:

- a) students enrolled in **Introductory Foods (HTM*2700)**, Cultural Aspects of Food (HTM*2740), Restaurant Operations Management (HTM*3090) and Advanced Restaurant Operations (HTM*4110) courses in the School of Hospitality and Tourism Management and
- b) those involved in student sponsored activities which use HTM food laboratory facilities.

Food Production Uniform

- A chef jacket OR white lab coat - clean, pressed and buttoned
- Chef cap OR hair net - covering all hair
- Beard net where deemed necessary by the course instructor
- Full-length pants (shorts, skirts and torn jeans are not allowed)
- Closed toe, leather or non-absorbent material shoes with non-skid soles (sandals, clogs, canvas sneakers and open-toed or heeled shoes are **not** allowed),
- **No jewelry of any type** - this includes all facial jewelry (earrings, nose rings, lip rings, eyebrow rings etc.), necklaces, watches and bracelets of any kind, except Medic Alert bracelets.
- Short to moderate length **unpolished** fingernails and no false fingernails.

Note: If you appear without the proper uniform you may rent a lab coat for \$3.00 (per time) or purchase a hair net for \$1.00.

Lab Safety and Supervision of Students in Food Production Laboratories

Safety in the laboratory is a priority at all times. In order to ensure safety of all participants, the safety procedures provided by the instructor must be followed. It is the responsibility of each student to attend any safety orientation that is provided. Students who explicitly refuse to follow lab safety policy will be required to leave the lab and the School's Director will be informed of the incident.

Students in food production laboratories must be supervised by an instructor, lab technician or graduate teaching assistant at all times. There is a real concern about the safety and well being of students left in a lab unsupervised. The School is directly responsible for these students and their activities as they relate to the courses.

Students' access to food storage areas (refrigerators, freezers or dry storage) outside of class time, without supervision is prohibited, i.e. keys may not be given to students to work on weekends or in the evening.

All applicable health, food safety and liquor regulations will be adhered to while in the HTM food laboratory facilities.

Schedule of Classes

<u>DATE</u> <u>(Week Of)</u>	<u>LECTURE</u> <u>TOPICS</u>	<u>LABORATORY</u> <u>EXERCISE</u>	<u>BACKGROUND</u> <u>INFORMATION & QUIZ</u>
Fri. September 6	Course orientation	—	—
September 9 - 13	Food borne illness and food safety HAACP system Dispersion systems and emulsions Osmosis and turgor pressure Types of salads and parts of salads	Intro. to lab and Salads	—
September 16 - 20	Fruit - structure - effects of cooking Oxidative enzymatic browning Diffusion vs. Osmosis	Fruit	Fruit
September 23 - 27	Vegetables - flavour types - effects of cooking Plant pigments	Vegetables	Vegetables
September 30 to October 4	Causes of food spoilage Growth requirements of microorganisms Canning Freezing Jams, jellies and pickles	Preservation	Preservation
October 7 - 11	Colloidal dispersions - stabilizing factors - sol and gel states Starch - sources and types - gelatinization - retrogradation - factors affecting sols and gels - syneresis - white sauce vs. brown sauce - preventing lumps in starch mixtures	Starch	Starch
October 14-18	<p>Thanksgiving - Monday, October 14th Monday lecture CANCELLED. NO LABS this Week Wednesday (Oct. 16th) and Friday (Oct. 18th) lectures as scheduled.</p> <p>Proteins - types and structure - denaturation - coagulation - over-coagulation and syneresis</p>		

MIDTERM 1 - Thursday, October 17th, 5:30 - 7:00 pm
• Surnames A to L in Rozanski (ROZH) 102
• Surnames M to Z in Rozanski (ROZH) 103

<u>DATE</u> <u>(Week Of)</u>	<u>LECTURE</u> <u>TOPICS</u>	<u>LABORATORY</u> <u>EXERCISE</u>	<u>BACKGROUND</u> <u>INFORMATION & QUIZ</u>
October 21 - 25	Eggs <ul style="list-style-type: none"> - composition and structure - functional properties - factors affecting coagulation of egg proteins - factors affecting egg white foam quality 	Eggs	Eggs
October 28 to November 1	Milk <ul style="list-style-type: none"> - whey and casein proteins and causes of denaturation - whipping cream foam Cheese-making process Melting and blending properties of cheese	Milk & Cheese	Milk & Cheese
November 4 - 8	Meat <ul style="list-style-type: none"> - composition and muscle structure - beef wholesale and retail cuts - poultry and fish - dry heat cooking methods 	Meat 1	Meat 1
November 11 - 15	<p>MIDTERM 2 - Thursday, November 14th, 5:30 - 7:00 pm</p> <ul style="list-style-type: none"> • Surnames A to L in Rozanski (ROZH) 102 • Surnames M to Z in Rozanski (ROZH) 103 		
	<p>Monday, Wednesday and Friday lectures as scheduled.</p>		
	Meat <ul style="list-style-type: none"> - methods to increase tenderness - moist heat cooking methods - fresh and cured meat colour reactions 	Meat 2	Meat 2
November 18 -22	Structure of cereal grains Gluten formation Leavening gases Mixing of muffins Flake formation in tea biscuits Browning reactions	Muffins & Tea Biscuits	Muffins & Tea Biscuits
November 25, 27 and 28 ★	Cakes <ul style="list-style-type: none"> - function of ingredients - conventional vs. quick-mix methods - surface colour 	Cakes (Quiz, but no lab report)	Cakes

★NOTE: Lecture on Thursday, November 27th replaces cancelled class on Thanksgiving, Monday, October 14th .

December 3rd FINAL EXAM - Tuesday, December 3rd, 2:30 to 4:30 pm in a location to be determined by the Office of Registrarial Services.

Course Evaluation

Your final grade in the course will be determined as follows:

Laboratory Reports	7 reports	20%
Laboratory Quizzes	10 quizzes	10%
Midterm 1	Thursday, October 17 th , 5:30 - 7:00 pm	20%
Midterm 2	Thursday, November 14 th , 5:30 - 7:00 pm	20%
Final Examination	Tuesday, December 3 rd , 2:30 - 4:30 pm	30%

NOTE: *Students must obtain an overall cumulative pass in the three examinations in order to pass the course (i.e. Midterm 1 + Midterm 2 + Final Exam = 35 / 70 or higher). If a student does NOT cumulatively pass the three exams then their final grade in the course will be calculated as the marks earned on the 3 exams expressed as a percentage.*

Laboratory Reports:

- Students can either purchase a set of Laboratory Report Sheets - **Fall 2013** from the University Bookstore in the MacNaughton Building or download the Lab Report Sheets from the HTM*2700 CourseLink website (<https://courselink.uoguelph.ca/shared/login/login.html>).
- Students are responsible for handing-in their lab reports, to their lab instructor at the beginning of the lab the week that the report is due (e.g. Salads and Fruit Lab Report is to be handed-in at the beginning of the Vegetable Lab). A total of 7 lab reports will be submitted.
- Lab Reports can be answered in the spaces provided (blue or black ink) or they can be done on the computer.
- **Lab reports done on the computer must:**
 - include the questions and marking scheme with the answers
 - use minimum font size of 12 point
 - be stapled in the top left corner. Covers are not necessary.
- **Late Reports** - Students who find themselves unable to hand-in a lab report on time due to medical, psychological or compassionate circumstances beyond their control should discuss their situation with Professor Allen and make arrangements regarding a new due date. Lab Reports handed-in late for other reasons will be penalized 10% per day and will only be accepted up until the Friday of the week they are due.
- **Individual assignments** -You can work together in gathering information for your lab report, and you can discuss general points and the outline of your report with others. However, in writing your lab report you **MUST** work **INDEPENDENTLY**. **Lab reports are individual assignments and must be completed independently.** No two reports should look like they came from the same computer file, with a word or two changed to keep them from being identical. IF you write independently, and put your report into your own words you don't have to worry about it looking like someone else's. **DO NOT** share your lab reports with anyone else in the class. **Plagiarizing another student's answers constitutes academic misconduct.** Plagiarism includes the act of copying or paraphrasing significant portions of someone else's material and representing it as one's own. Suspected cases of plagiarism will be reported to the Associate Dean - Academic of the College (See p. 8).

Course Evaluation Cont'd

Laboratory Reports Cont'd:

• <u>Lab Report</u>	<u>DUE at the beginning of your lab the week of:</u>
Salads and Fruit	September 23
Fruit and Vegetable	September 30
Preservation	October 7
Starch and Egg	October 28
Egg, Milk and Cheese	November 4
Meat	November 18
Muffins and Tea Biscuits	November 25

Laboratory Quizzes:

- Lab quizzes will be done on-line through the HTM*2700 CourseLink website: <https://courselink.uoguelph.ca/shared/login/login.html> .
- Information that will be tested on the quizzes is found in the “*Background Information*” sections of the Course Package and any associated readings for that lab (e.g. Fruit quiz will be on “*Fruit Background Information*” and readings).
- Each quiz will consist of 10 questions and you will have 15 minutes to complete the quiz. Each quiz can only be taken once.
- The day of your scheduled lab determines when you can take your quiz. You have a **48 hour window** during which you can write the quiz. The window includes the 24 hours prior to your scheduled lab day and the 24 hours of your lab day. For example, if your scheduled lab is on Monday you will have access to your quiz from Sunday morning 12:01 am until Monday at 11:59 pm. Once your quiz is completed you will be given your mark, but the answers to the questions which you got wrong will **not** be available until the end of the week, after all students in the class have taken the quiz.
- There are a total of 10 quizzes. The **first quiz** is the Fruit Quiz during the **week of September 16th**
- **Failure to write a quiz during your specified window will result in a grade of zero (0).**
- **Missed Quizzes** - If you miss taking your quiz and have a legitimate medical, psychological or compassionate reason contact the course Lab Technician, Alison Crerar (acrerar@uoguelph.ca) **immediately**. If you do not contact her a grade of zero ('0') will be assigned to the missed lab quiz.
- **Lab Attendance and Quiz Marks** - **In order to your count quiz marks towards your final grade in the course, you must attend a minimum of 9 of the 11 labs during the semester.** If you fail to attend at least 9 labs then you will forfeit this 10% component of the course. If you must miss a lab due to illness etc. contact Professor Allen or the Course Lab Technician, Alison Crerar, **before lab** or **immediately afterwards**. Failure to contact Alison or Prof. Allen about missing your lab will be recorded as an absence.

Midterm 1:

- **Thursday, October 17th from 5:30 to 7:00 pm**
 - **Surnames A to L in Rozanski (ROZH) 102**
 - **Surnames M to Z in Rozanski (ROZH) 103**
- Midterm 1 will test any material covered up to the end of PRESERVATION (September 9th to October 4th inclusive).
- also includes Chapters 1, 2 and 3 in the Advanced FST - Food Safety Training in Canada - 3rd Edition (2011).

Midterm 2:

- **Thursday, November 14th from 5:30 to 7:00pm**
 - **Surnames A to L in Rozanski (ROZH) 102**
 - **Surnames M to Z in Rozanski (ROZH) 103**
- The second midterm will test all material covered on STARCH, EGGS, MILK and CHEESE (October 7th to November 1st inclusive).

Final Examination:

- **Tuesday, December 3, 2013 from 2:30 to 4:30 pm** in a location to be determined by the Office of Registrarial Services.
- The final exam will be cumulative and therefore include all material studied in the course. Emphasis will be placed on material covered after Midterm 2 (Meats, Muffins & Tea Biscuits and Cakes).

NOTES:

- 1) Both midterms and the final exam will be a combination of multiple-choice and short answer questions.
- 2) Any student not writing a midterm or the final exam at the scheduled time will receive a grade of zero unless they have valid documentation to verify a medical, psychological or compassionate reason for missing the midterm.
- 3) Students are responsible for ensuring that they do not have a time conflict with final exams in other courses. The Final Exam Schedule is available through WebAdvisor for Students. In the event of a conflict the student must drop one of the courses.
- 4) **Religious Holidays** - Should you need to miss a lab or examination for religious reasons, please advise Professor Allen at least 2 weeks in advance so that alternate arrangements can be made.

Academic Misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and directs all members of the University community - faculty, staff and students - to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. The University of Guelph takes a serious view of academic misconduct and it is your responsibility as a student to be aware of and to abide by the University's policy. Included in the definition of academic misconduct are such activities as cheating on examinations, plagiarism, misrepresentation, and submitting the same material in two different courses without written permission.

To better understand your responsibilities with respect to Academic Misconduct read the following section of the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>.

Discuss any questions you may have with your course instructor, teaching assistant, Academic Advisor or Program Counsellor.

You are also encouraged to make use of the resources available through the Learning Commons 'Academic Integrity' website at: <http://www.academicintegrity.uoguelph.ca/>. This website includes:

- ✓ Definitions of Academic Integrity and Plagiarism
- ✓ A Video vignette depicting an issue of academic misconduct involving U of G students
- ✓ Rules, Regulations, and Penalties for Academic Misconduct at the University of Guelph
- ✓ Illustrations of how to avoid unintentional academic misconduct and plagiarism
- ✓ Short quizzes and exercises to test your understanding of the rules governing academic work

Students should be aware that faculty have the right to use software to aid in the detection of plagiarism or copying and to examine students orally on submitted work. For students found guilty of academic misconduct, serious penalties, up to and including suspension or expulsion from the University can be

imposed.

Students who find themselves unable to meet course requirements by the deadline or criteria expected because of medical, psychological or compassionate circumstances beyond their control, should review the regulations on Academic Consideration in the Undergraduate Calendar and discuss their situation with the instructor, Program Counsellor or Academic Advisor as appropriate.