

## Introduction to Foods and Nutrition Lab (1 credit)

11:709:202

Fall 2016

**Purpose:** Application of knowledge of food composition and nutritive values to food preparation

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**Office Hours:** By appointment

**Office:** 216B Davison Hall

**Lab Hours:** Monday 9:15-12:15                      Tuesday 9:15-12:15  
Thursday 10:55-1:55

**Laboratory Manual:** Purchase at Barnes and Noble, Cook/Douglass Campus

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### Course Objectives:

- Demonstrate proper kitchen and food safety
- Apply techniques of food preparation in lab
- Identify principles of food science and nutritional aspects of food preparation
- Perform sensory evaluations of food

Each week we will cover a specific topic in food preparation. We will discuss food preparation theory and techniques and then divide into small groups. Different groups will be assigned to prepare different foods as well as different versions of the same foods.

Once all of the food preparation is completed, we will sit down to taste and evaluate each of the dishes.

### General Kitchen Safety:

**Required Attire:** lab coat or *full* apron, close-toed shoes, no loose clothing or jewelry, hair must be tied-back, nails should be kept short and clean. \*You will not be allowed to participate in lab without the proper attire; points will be deducted per scale below.

**Kitchen Station Cleanliness:** Workstations need to be clean and clear of ***all personal items*** (cell phones, water bottles, clothing, bags, etc.)! Hands need to be washed thoroughly and often, and gloves should be worn when handling food items. Keep all bags and coats on chairs, under tables or windowsills-- not on tabletops.

**Sharps:** When walking with a knife, hold knife by handle with tip pointing down, blade edge facing behind you, keeping knife close to your side. Never leave sharp utensils in the sink! (Visible items quickly become potential dangers when hidden at the bottom of a soapy sink). Immediately report all injuries, broken equipment and missing supplies to instructor.

**Knife Care:** Always use a cutting board to prevent dulling of the blade. Hand wash knives to prevent drying and warping. Basic knife skills will be taught in subsequent lab sections.

**Hot Items:** (Dry) potholders or oven mitts should be used whenever handling hot items, be aware of steam hazards. If moving a hot pan/dish/food item, communicate to your partner/anyone standing close by that the item is hot.

**Lab Procedures:**

Know which bowls and measuring equipment you need before coming to the supply areas. Use the proper measuring equipment.

Leave food supplies on the cart or in food supply area. **DO NOT** take them to your unit. Measure ingredients carefully to avoid wasting food. **DO NOT** throw away any ingredient or finished product before asking your instructor. Extra supplies might be needed by the other lab groups.

Food must be presented on a serving dish when applicable, and have its own serving spoon/fork etc. Food should not be brought to the table in a pot or pan. Do not eat anything that your group has prepared without first allowing other groups to evaluate your foods. You are responsible for evaluating your own prepared foods as well as evaluating prepared foods from other lab groups.

Sit down to sample food. You **MUST** cook everything and participate in lab. Food tasting is recommended, but not required. If you have a food allergy or food preference, please alert the instructor ahead of time.

Do a thorough clean up (all equipment, work areas, dishes and utensils). Applicable items should be rinsed and put in the dishwasher. **POTS AND PANS ARE NOT ALLOWED IN THE DISHWASHER** and must be washed with hot water and soap, dried, and put away prior to food evaluation. Be sure to clean up any spills on the stove or in the oven. Empty sink strainer; clean and dry sink. Place wet dishtowels and dishcloths on a tray near the door. **DO NOT LEAVE** until the instructor has inspected your lab area.

**Safety & Sanitation Techniques:**

Good food safety procedures will be observed at all times. (See safety procedures above.)

Foods that require refrigeration will be kept in the refrigerator until needed, and returned to the refrigerator and soon as possible after use.

Use cutting boards for all chopping and cutting. Do **NOT** use the counter-top or trays for cutting unless otherwise indicated to do so. Wash wooden cutting boards in hot soapy water, do not soak. Plastic cutting boards can be placed in the dishwasher.

Wipe up any spills with paper towels, not dishcloths or towels.

When using electric mixers use dry hands; disconnect cord from the wall when cleaning; use rubber spatulas only when mixer is turned off.

Before leaving be sure your oven and burners are off.

**Fire Safety:**

In case of a kitchen fire DO NOT USE WATER

Try to smother the fire:

- The carbon dioxide extinguisher is located at the back of the room. Remove the pin, aim, and squeeze trigger.
- Use flour, salt, or skillet cover to cover the flame.

**Study questions:** These question sets are a tool to help you study for each week's pre-lab quiz, they are not to be turned in.

**Quizzes:** A quiz will be given during the first 20 minutes of each lab session. Quiz questions will be based on material presented in lab lectures and in the lab manual/handouts/study questions, as well as on applied information learned from actual lab practice. Kitchen-Lab doors will be closed from the time lab starts to the end of the quiz; make-up quizzes **will not** be offered to tardy students!

**Lab reports:** There will be 3 lab reports assigned throughout the semester

After three of the lab sessions, you will prepare a lab report, which will be due one week later at the beginning of the next lab session. The lab report format (purpose, ingredient and equipment list, procedure, results and discussion) as well as any additional written components will be discussed in class prior to the assignment. Late lab reports will be 10 points off per day late; remember that your lab reports are each 60 points!

**Final:** A final exam (covering all labs) will be give the last week of classes, not during the final exam period.

**Grade Evaluation:**

	<b>Points Each</b>	<b>Total Points</b>	<b>Grading:</b>
Lab Attendance/Participation (12 labs) Attendance/Lateness Appropriate Attire Active Participation Hand washing/Food safety/Clean up	20	240	A: 582-650 pts. B+: 549-581 pts. B: 517-548 pts. C+: 484-516 pts. C: 452-515 pts. D: 387-514 pts. F: 0-386 pts.
Quizzes (13)	10	130	
Lab Reports (3)	60	180	
Final Exam	100	100	
		<b>650</b>	

### Lab Schedule

Week of:	Lab
September 5 <sup>th</sup> -9 <sup>th</sup>	Syllabus
September 12 <sup>th</sup> -16 <sup>th</sup>	Lab 1 - Introduction Lab 2 - Measurement/Sensory Evaluation
September 19 <sup>th</sup> —23 <sup>rd</sup>	Lab 3 - Dispersion Systems and Emulsions
September 26 <sup>th</sup> -30 <sup>th</sup>	Lab 4 - Quick Breads
October 3 <sup>rd</sup> -7 <sup>th</sup>	Lab 5 - Yeast Breads <b>*1<sup>st</sup> Lab Report Due</b>
October 10 <sup>th</sup> -14 <sup>th</sup>	Lab 6 - Shortened and Foam-style Cakes
October 17 <sup>th</sup> -21 <sup>st</sup>	Lab 7 - Legumes and Cereals
October 24 <sup>th</sup> -28 <sup>th</sup>	Lab 8 - Fruits, Vegetables and Salads <b>*2<sup>nd</sup> Lab Report Due</b>
October 31 <sup>st</sup> -November 4 <sup>th</sup>	Lab 9 - Meats and Poultry
November 7 <sup>th</sup> -11 <sup>th</sup>	Lab 10 - Eggs
November 14 <sup>th</sup> -18 <sup>th</sup>	Lab 11 - Milk and Cheese <b>*3<sup>rd</sup> Lab Report Due</b>
<b>November 21<sup>st</sup>-25<sup>th</sup> Thanksgiving Break</b>	
November 28 <sup>th</sup> -December 2 <sup>nd</sup>	Lab 12 - Fats and Pie Pastries
December 5 <sup>th</sup> -9 <sup>th</sup>	Lab 13 - Fish and Seafood
Date to be determined	Final Exam