

FOS 4310L
Experimental Food Laboratory
1 credit
Spring Semester 2021

Instructor:	Sharyn Passeretti, Teaching Laboratory Specialist II
Contact Information:	Food Science and Human Nutrition Department Room 333A, FSHN Building, Newell Drive Phone: 352.294.3729 Email: sharyn@ufl.edu
Office hours :	Thursday 10:00 am – 12:00 pm or by appointment
Lab Time :	Section 0046 14528 : Monday periods 8 - 10 (3:00 pm to 6:00 pm); Section 6621 14529: Wednesday periods 7 - 9 (1:55 am – 4:55 pm) Location: Experimental Food Lab—Located in the Pilot Plant Food Science & Human Nutrition Building 572 Newell Drive, Room 130
Course Prerequisites/ Co-requisites:	Food Chemistry (FOS 4311)
Course Description:	This course is designed to demonstrate and illustrate the chemical and physical properties of foods. The Course shows the effects of processing, ingredients, on food quality and nutrient retention. Students will prepare and evaluate different food products (fudge, cheese, bake goods, etc.) using various chemical, instrumental, and sensory analysis techniques. The focus is on applied food development for dietetic students.
Objectives:	<ul style="list-style-type: none">• To integrate chemistry and biochemistry principles into real-world food science and nutritional problems.• To determine how ingredients, food components, processing, influences the quality, sensory, and physical and chemical parameters of finished food products.• To compare and contrast various food processing operations on the chemical changes of food components as they relate to food quality, nutrient composition, and safety.• To acquire technical data and information for inclusion in a laboratory notebook while performing laboratory experimentation; to analyze the information using computer programs by tabulating data, performing calculations and statistical analyses; to document laboratory exercises by submitting reports in a standard journal format; to enhance the student's ability to present written information of a scientific nature combined with the hands-on experiences.
Texts: Optional	<ul style="list-style-type: none">• Understanding Food Principles and Preparation, Brown Amy. Edition, latest Cengage Learning ISBN-10 1-133-60716-0• Experimental Foods Laboratory Manual, 7th Edition, Margaret McWilliams. Pearson Prentice Hall ISBN-10 0-13-235328-8

GRADING

PERCENTAGE BREAKDOWN

50% IN LAB PERFORMANCE—broken down in to 6 5-point sections

1. Attendance, Attitude, & Preparation
2. Quizzes
3. Notebook
4. Dress code
5. Lab safety
6. Clean up

50% LAB REPORTS—there are 5 reports worth 30 points each.

Examinations:

There are no written examinations for this lab class. Grading will be based solely on lab performance points and lab reports.

The letter grade will be the percentage of the cumulative points.

PERCENT	LETTER GRADE
90.0 – 100.0	A
87.0 – 89.9	A-
84.0 – 86.9	B+
81.0 – 83.9	B
78.0 – 80.9	B-
75.0 – 79.9	C+
72.0 – 74.9	C
69.0 - 71.9	C-
66.0 – 68.9	D+
63.0 – 65.9	D
60.0 – 62.9	D-
0 – 59.9	E

LABORATORY SCHEDULE AND REPORT DUE DATES

LAB TOPICS	PERFORMED MON & WED	REPORT DUE
1. LAB INTRODUCTION	1/20	No report
2. MEASUREMENTS & FOOD ACIDITY	1/25 & 1/27	2/10
3. CARBOHYDRATES	2/8 & 2/10	2/24
4. LIPIDS	2/22 & 2/24	3/10
5. PROTEINS	3/15 & 3/17	3/31
6. LEAVENING, PIGMENTS & ENZYMES	4/5 & 4/7	4/19

LAB PERFORMANCE POINT OUTLINE

ATTENDANCE, ATTITUDE & PREPARATION

I expect from you what your employers will expect from you. The purpose of this section is to establish good working practices. Here is the outline—**each requirement is worth one point each.**

You will be:

1. On time your assigned lab time.
 - a. Due to COVID distancing, only one student can be at a station—this will mean two lab time slots per lab. I will be assigning you to stations alphabetically. To make sure one person does not have to break down the lab items. You will alternate who comes in 1st & 2nd. There will be a roster posted on canvas.
2. Prepared for your lab
 - a. Student has their notebook, phone to take pictures with, pen, hairnet
3. Prepared to make the recipes and perform the observation experiments. This means:
 - a. I do not have to guide you to the proper ingredients, utensils, work stations.
 - b. I expect you to have read & watched all the material that is posted on canvas.
4. Conscientious to your co-workers—meaning the people working in the lab with you.
 - a. You do not take common area items back to your station. e.g. measuring cup from the weighing table.
 - b. You leave the common areas neat and clean.
 - c. Putting things back or away in their correct location.
5. You leave in a timely fashion.
 - a. You need to be out of your station within your 1.5 hour time slot.

QUIZZES—5 POINTS

There will be a quiz given to you just before you start your lab. It will cover the written and video material for the lab. **There will be 5 questions worth one point each.** The format will be multiple choice, true/false, or fill in the blank.

LABORATORY NOTEBOOKS—5 POINTS

The purpose of requiring notebooks is to acquaint you with GOOD LABORATORY PRACTICES of proper data accumulation, organization and statistical analysis needed to validate information and form a basis for decisions made in the food industry and health professions.

Here is the outline—**each requirement is one point each**

NOTEBOOK AT BEGINNING OF LAB

1. Follows lab notebook format
 - a. RIGHT SIDE of notebook; Procedures, results area, and data are written.
 - b. LEFT SIDE of notebook: For Calculations and formulas are written.
2. Contains
 - a. Date
 - b. Lab number and what the lab is: e.g. LAB 2: MEASUREMENTS
 - c. An outline of the procedure you are doing.
3. Table for entering your data.

NOTEBOOK AT END OF LAB

4. Any additional notes and/or changes and data are entered.
5. EXCEL data from the notebook is transferred to the canvas excel.

LABORATORY DRESS CODE—5 POINTS

NOTE: If dress code is non-compliant you can be sent home to change. Here is the outline—**each requirement is worth one point each.**

1. Only flat closed toed shoes with a nonskid sole are allowed. Sneakers, work shoes. No open toes or sandals allowed.
2. Long or short sleeved full coverage shirts. No sleeveless, tank tops, midriffs.
3. Loose fitting pants. **No leggings or shorts are allowed in lab!** Loose fitting clothing prevents hot items from sticking to the skin, which can help prevent burns from happening.
4. Hair coverings will be worn as well. Hair shoulder length needs to be tide back. Longer hair needs to be braided or bound in a bun or similar fashion. You will be issued one at the beginning of lab and are expected to bring it with you.
5. Jewelry & watches should not be worn. Put them in your backpack prior to class.

FOOD LAB SAFETY—5 POINTS

Here is the outline—**each requirement is worth one point each.**

1. Only yourselves, lab manuals are allowed in the lab. All other items are kept on the shelf by the partition. **NO PHONE CALLS OR TEXTING IS ALLOWED. CALLS/TEXTING WILL RESULT IN 5 POINT LAB SAFETY LOSS.**
2. Clean as you go. Wipe counters, clean dishes as you cook/bake. Know what items you need.
3. Handling of sharps (e.g. knives, scissors). Sharp items always point to the floor when transporting. Knives are only used on cutting boards.
4. For handling hot cook/bakeware, use potholders, oven mitts or dry cotton toweling (no microfiber) to handle hot items.
5. Gloves will be worn for cold food preparation. Do not use during stovetop or baking portion of the lab.

LAB CLEAN UP—5 POINTS

Here is the outline—**each requirement is worth 5 points each.**

1. **FOOD USE & STORAGE:** All Food is properly put away. Put in the refrigerator, dry storage. Items for lab will have the Station # and person's name.
2. **DISHWASHING:** All dishes for cooking and service are properly washed, sanitized, dried & put away.
 - a. 1st person in the station will dry and put item back where they retrieved it.
 - b. Last person in the station will dry and put the item back into their containers and put back as instructed. There is an inventory sheet located by the electric box that states where everything goes as well.
3. **STOVE BREAKDOWN:** With soap water & scrubbie, clean stove top, control panel, oven door, pot drawer. Baked on use the glass top cleaner or bar keepers friend. **BURNER STOVES** - wash the underliner you used and make sure there is no baked on ring. Wipe down with water. Wipe dry with cloth.
4. **COUNTER & TABLE BREAKDOWN:** All surface areas that are used during the cooking session are to be wiped down with soap and water then sanitized with 70% ethanol and wiped with dry towel.
5. **SINK BREAKDOWN:** Wash down with soap and scrubbie. Rinse with water. Spray with 70% ethanol. Squeegee excess down drain. Dry with dish cloth.

LABORATORY REPORTS

To enhance the student's ability to analyze and present scientific information in a logical and acceptable written format, laboratory reports are required for each general area of study. Reports are to be written using a scientific report outline.

Report Submission

- Email your reports to me at sharyn@ufl.edu by 5pm on the due date.

Late reports will lose 5 pts for each day submitted after the deadline. Reports will not be accepted beyond 6 days late and thus will result in a 0 (zero).

FORMAT FOR WRITING LABORATORY REPORT

REPORT SECTION	SECTION DESCRIPTION	POINTS
Cover Page/File Name	1.Date 2.Lab Number & Title 3.Your name 4. Signature section for electronic submissions NAME YOUR E-FILE USING THE SAME FORMAT: e.g. 1-15-21 LAB 2 MEASUREMENTS & FOOD ACIDS S PASSERETTI THERE WILL BE A 15 POINT PENALTY FOR ANYONE THAT DOES NOT FORMAT THEIR E-FILE TITLE THIS WAY	0
Introduction	1)In your own words: a) General information about the lab topic b) The learning objective of the lab.	1
Procedures	1)Brief overview of what you did in the lab. a) It doesn't have to be verbatim to the lab procedures. Just a general outline.	2
Results & Data	1. The results are your visual and sensory observations written in your lab notebooks and pictures. 2. Your statistical data into your lab notebooks then enter it into the course excel file. When there is statistical data (ANOVA) you will use the data collected EVERYONE taking Experimental Foods lab. 3. You will generate any statistical data CORRECTLY 4. You will show all calculations. 5. You will present the data clearly and neatly. Inefficiently labeled, formatted, or pasted data will be given a zero for the results section.	5
Discussion	1. Subtitle each experiment sub section (e.g. Weights Section, Acid Experiment Section) 2. Briefly discuss the results as to what happened and why. 3. Then answer the questions by a) Writing out the question b) Writing the answer 4. For the discussion and answering questions, you are required to look up additional information on the subject and incorporate the information. Be sure to cite correctly (see references sheet). ONLY PROFESSIONAL REFERENCES CAN BE USED.	16
Conclusions	1. Summarize the results of the lab 2. What the lab has taught you about the Food Chemistry subject 3. How you can apply it to the dietetic industry.	3
References	A minimum of three Remember to cite all references used according to scientific journal format. Please see the reference example handout. List references in numerical order as they are presented in the report.	3
	TOTAL POINTS	30

Online Course Evaluation Process:

Experimental Foods Lab, FOS 4310L

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

Services for Students with Disabilities:

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation: 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources:

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/*
- Counseling Services; Groups and Workshops; Outreach and Consultation; Self-Help Library; Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/
- *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*