

FOS4427C/6936 Principles of Food Processing Syllabus

Lecture: M W F 9:35-10:25AM Room: MCCA 3194

Laboratory: F 12:50-4:50 PM Food Science Pilot Plant

Instructor: Dr. Andrew MacIntosh **Phone:** 352-294-3594
Office: AFPP (Bldg 120) **E-mail:** Andrewmacintosh@ufl.edu
Room 126
Office Hours: Open door Monday-Thursday afternoons, or by appointment.
TA: TBD

Course Description: This class will introduce principles of foods processing: cooling, freezing, heating, dehydrating, concentrating, irradiating, fermenting and the use of chemicals. Laboratories provide students with hands-on experience working with food processing equipment. FOS6936 is co-taught with FOS4427 – The graduate level course has much higher expectations for each laboratory, report and exam.

Textbook:

Singh, R.P. and D.R. Heldman. 2013. Introduction to Food Engineering. 4th edition. Academic Press.

Note: Supplemental notes and handouts will be distributed to class via Canvas and/or email.

Background information (recommended reading for those who have not taken principles of food engineering):

1-25 Intro and units
257-269 Thermal Properties of Food
187-200, 248-252 Steam
270, 285-306 SSHT
337-350 USSHT
543-545, 548, 551, 793 Evaporation

Both Graduate and undergraduate:

Lab 1 653-658 water activity
Lab 2 269 - 270 - Radiation
Lab 3 571-584 Psychrometrics
Lab 4 663-670 Spray Dry, Freeze dry, Time calculation
Lab 5 455-474 Refrigeration
Lab 6 501-530 Freezing food

Course Outcome: Students will become familiar with the principles of food processing to the extent that the students will be able to manipulate parameters to design for specific outcomes. Students will be able to use research literature on the subjects and analyze situations in which food processing technologies may be utilized.

Learning Activities: These include classroom lectures, laboratory sessions and reports (with application based problems), group discussions, guest lectures on select topics (as available).

Assessment Tools: Written exam(s), laboratory reports, and performance will be used to assess students' learning outcomes. In addition, observations during classroom discussion and reflections during laboratory sessions will also be conducted to determine success of the learning outcomes.

Exams: A midterm and final exam will be given. **Note:** All exams are open book, open notes.

Grading Policy:

Lab reports x 6	60%	A: 90 – 100 A-: 87-89.99 B+: 85 – 86.99
Midterm	20%	B: 80 - 84.99
Final	20%	C+: 75 - 79.99 C: 70 - 74.99
Total	100%	D+: 65 - 69.99 D: 60 - 64.99 E: Below 60

Lab Reports: Laboratory reports are due one week from the date of the laboratory. A 20% penalty will be assigned for late assignments or reports turned in within 3 days after the due date. No lab report will be accepted after 3 days past the due date. Reports should be started early so that any questions may be asked well in advance of the due date (ideally during office hours). It is the student's responsibility to ask any questions about the report before the last minute.

Absences and Make-Up Work

Requirements for class and laboratory attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Other Course Information:

Participation: Students will not be assigned a grade based on their attendance, however, preparedness for the laboratory is essential and students who have not reviewed the laboratory manual will not be permitted to participate in the laboratory.

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/

Academic Honesty: The University of Florida requires all members of its community to be honest in all endeavors. Cheating, plagiarism, and other acts diminish the process of learning. When students enroll at UF they commit themselves to honesty and integrity. Students are fully expected to adhere to the academic honesty guidelines they signed when they were admitted to UF. As a result of completing the registration form at the University of Florida, every student has signed the following statement:

"I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University." Furthermore, on work submitted for credit by UF students, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is to be assumed all work will be completed independently unless the assignment is defined as a group project as indicated explicitly by the professor. This policy will be upheld at all times in this course.

Software Use: All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

Online Course Evaluation Process

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>.

Student Complaints:

Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

Campus Helping Resources: Students experiencing crises or personal problems that interfere with their general well-being 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/*