

SYLLABUS FOS 6936 /FOS4936 – TECHNOLOGY OF FATS & OILS

In FOOD APPLICATIONS

Fall Semester 2015
3 Credit Hours
(Section 26EA / 26C1)

- Lecture Sessions:** Monday & Wednesday
Monday – Periods 4 & 5 / Wednesday – Period 4
10:40AM to 12:35AM / 10:40AM to 11:40AM
Monday – MAT 107 / Wednesday –RNK 210
- Instructors:** Dr. Gloria Cagampang
- Office Location:** Food Science & Human Nutrition Building
Newell Drive, Room 467B
- Office Phone:** (352) 256-2616
- Email:** cagampang@ufl.edu
goyang@live.com
- E-learning:** <http://lss.at.ufl.edu>
- Office Hours:** 8:30AM to 2:30PM on Mondays & Wednesdays (or by appointment)
- Required Text:** Course Packet – Posted in Sakai (provided by Instructor)
- Course Objectives:** Provide an overview of agronomy, production, and trade of the current major domestic and offshore oilseeds (soybean, canola and palm); understand critical parameters involved in the extraction, refining, bleaching, and deodorization of fats and oils; define methods to modify fats and oils (hydrogenation, fractionation, blending, interesterification, emulsification, crystallization) for functional use in foods; understand handling and preservation of fats and oils for safety and quality; identify the cause and methods to determine chemical changes in fats and oils during storage, such as oxidation reactions.
- Course Schedule:**
- WEEK 1 – August 24th THRU August 29th
Course Introduction
Review syllabus and Road Map for the course
Canola Oil – Cargill Technology
- WEEK 2 – September 1st THRU September 5th
Canola Oil- Dow AgroSciences Technology
Palm Oil Malaysian- Part 1
- WEEK 3 – September 7th THRU September 12th
Palm Oil Malaysian – Part 2
Palm Oil- Production, Processing, Quality
- WEEK 4 – September 14th THRU September 19st
Colombian High Oleic Palm Oil
Soybean Oil - Overview
- WEEK 5 –September 21st THRU September 26th
Soybean Oil – Bunge Technology
Chemistry of Fats & Oils

WEEK 6 – September 28TH THRU October 3rd

Stability & Oxidation of Fats & Oils

Review for Examination #1

WEEK 7 – October 5TH THRU October 10th

Exam 1 – October 5, 2015 (10:40AM – 12:35AM)

Industrial Evaluation of Fats & Oils

WEEK 8 – October 12th THRU October 17th

Modification of Fats & Oils:- Part 1 (Breeding, Hydrogenation, Fractionation, Emulsification)

Modification of Fats & Oils – Part 2 (Interesterification)

WEEK 9 –October 19TH THRU October 24TH

Modification of Fats & Oils- Part 3 (Crystallization)

Modification of Fats & Oils – Part 4 (Blending & Calculation)

WEEK 10 –October 26TH THRU October 31st

Nutritional Information – Part 1 & 2 (Loders Crocklaan Studies)

Review for Examination #2

WEEK 11 – November 1st THRU November 7TH

Examination # 2 – November 2nd, 2015 (10:40AM – 12:35AM)

A Novel Use of Tocotrienol to Regulate Obesity (Ph D Research)

WEEK 12 – November 9TH THRU November 14TH

Analysis of Fat & Oil Oxidation Analysis

Fatty Acid Profile by Gas Chromatography (FAME)

WEEK 13 – November 16TH THRU November 21st

Partially Hydrogenated Oils Vegetable Oils

Trans Fatty Acid Analytical Methods

WEEK 14 – November 23rd THRU November 28TH

Students Presentation

Review for Examination #3

WEEK 15 – November 30TH THRU December 5th

Examination #3 – November 30th, 2015 (10:40AM- 12:35 AM)

Instructor Evaluation

Students Presentation

Week 16 – December 7th THRU December 9th

Examinations:

Exam 1 – October 5, 2015 (10:40AM – 12:35AM)

Exam 2 – November 2, 2015 (10:40AM – 12:35AM)

Exam 3 – November 30, 2015 (10:40AM – 12:35AM)

Exams will be a mixture of multiple choice, short answer, matching, and essay questions, taking place during normal lecture periods.

*EXAM DATES ARE SUBJECT TO CHANGE WITH REASONABLE PRIOR NOTICE,
ANNOUNCED DURING LECTURE & POSTED TO SAKAI*

Make-up Exams: Make-up exams will be allowed only on the basis of extreme emergency upon the discretion of the Instructor. Students should make a concerted effort to contact the Instructor personally PRIOR to the scheduled exam date.

Scoring:	- Three (3) Examinations (30% each)	90%
	- Attendance & Participation	10%
		100

Grading Scale: Percentage Based System

A → 90% to 100%
A- → 86% to 89%
B+ → 83% to 85%
B → 80% to 82%
B- → 76% to 79%
C+ → 73% to 75%
C → 70% to 72%
C- → 66% to 69%
D+ → 63% to 65%
D → 60% to 62%
D- → 56% to 59%
E → 0% to 55%

Class Rules:

- Please turn off all cell phones and/or communication devices during lecture and especially during exams.
- If you need to have a conversation with a friend, please take your discussion outside and come back quietly when you are finished.
- If you are late for lecture, please enter quietly and have a seat at the nearest spot available.
- Please feel free to ask the instructor questions during lectures or exams

Student Complaints:

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://distance.ufl.edu/student-complaints> for more details.

Grades and Grade Points

For information on current UF policies for assigning grade points, see: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Absences and Make-Up Work

Requirements for class 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>

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, 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 assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>

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.

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

Training Programs

Community Provider Database

Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

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/