TEXAS A&M UNIVERSITY

SYLLABUS

BAEN - 622 Unit Operations in Food Processing
Fall 2018
Lecture: Monday & Wednesday, 10:20 to 11:10 a.m – Jack E Brown 108
Lab/Lecture: Friday, 10:20 to 12:00 p.m. – Some Labs will be Scoates Hall, 214 and 144

Course Description and Prerequisites

Design of food process engineering systems; basic concepts of rheology and physical properties of foods; fundamentals of heat and mass transfer and process control. **Prerequisites:** Fluid Mechanics, Thermodynamics, Fluid Dynamics

Course Objectives

The objectives of this course are to give students a basic understanding of food processing, concepts of physical properties of biological materials, application of heat, mass, and momentum transfer to food processing systems, and the ability to analyze and design food equipment for transporting fluid foods (non-Newtonian fluids) and for cooling, freezing, and frying of agricultural and food products.

Instructor Information

Name	Dr. Rosana Moreira
Telephone number	979-847-8794
Email address	rmoreira@tamu.edu
Office hours	By appointment
Office location	310 Scoates Hall

Textbook and/or Resource Material

Reference: Geankoplis, C.J. (1993) *Transport Processes and Unit Operations*; Ally and Bacon, Inc. New Jersey; Gekes, V. (1992) *Transport Phenomena of Foods and Biological Materials*, CRC Press; Hallström et al. (1988) *Heat Transfer and Food Products*; Current Food Processing/Food Engineering Journals; *Wall Street Journal*

Grading Policies

Grading	Grading Scale	
Homework	20 %	90 – 100: A
Lab reports	20 %	80 – 89: B
Midterms	40 %	70 – 79: C
Final	20%	60 – 69: D
		Below 60: F

Students enrolled in the DE section will be expected to watch each lecture capture video for the lectures and labs. They will be also be expected to put in the equivalent time, of no less than 135 hours of work, for the class.

Attendance: If a lab absence is unexcused, the student will receive a grade of zero for that entire lab exercise. Students who miss class due to an excused absence should work with the instructor to make up any missed work. Excuses for emergency absences must be reported to the instructor as soon as possible, but not more than one week after the return to class. See University Rules for a full statement of the University attendance policy at ***http://student-rules.tamu.edu/rule7.htm*.**
Homework: Assigned problems must be completed by the start of the following class period and will be collected by the instructor. Restate the problem, and then work the problem in a neat, logical manner and box final answers (include units). If there are multiple pages please staple them and include your name, problem set number and date at the top of the first page. **Incomplete assignments will not be accepted and given a zero grade. Late homework** will not be accepted unless the student has a University excused absence for the class period in which homework was scheduled for completion. If any assignments are turned in outside of class, you may hand it either directly to the instructor or to the Teaching Assistant. **Do not put assignments in the offices or slide them under the doors of the instructor or T.A.**

Instructor will work with those students enrolled in the course via Distance Education programs to determine appropriate assignment due dates.

Lab rules: For your safety, you should wear appropriate shoes (no flip-flops) and listen to the instructor or the T.A. when they explain the laboratory procedures. Make sure you understand them. You will be asked to sign a sheet stating that you have understood the rules. Late laboratory reports will not be accepted.

Instructor will work with those students enrolled in the course via Distance Education programs to determine appropriate lab assignment due dates.

Exams: There will be two in-class exams during the semester and a final exam (that may be optional). Each exam will contain material covered in lecture, lab, assignments, and homework. Make up exams will only be given for students with a certified medical excuse or prior instructor approval.

Instructor will work with those students enrolled in the course via Distance Education programs to determine appropriate exam dates.

This course has been assigned three credit hours based upon the work represented by verifiable achievement of institutionally established learning outcomes, direct faculty instruction, and academically engaged time. (Federal Rule GEN 11-06)

Coursework Copyright Statement (Texas A&M University Policy Statement): The handouts used in this course are copyrighted. By "handouts," this means all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, homework, lab problems, in-class materials, weekly news, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy them, unless you are expressly granted permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writing, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions about plagiarism and/or copying, please consult the latest issue of the *Texas A&M University Student Rules*, under the section "Scholastic Dishonesty.

Course Topics, Calendar of Activities, Major Assignment Dates

Week	Topic
1	Introduction, food chemistry
2	Food chemistry
3	Food rheology
4	Pipeline design
5	Pipeline design, exam
6	Heat transfer (review)
7	Thermal processing
8	Thermal processing
9	Freezing, exam
10	Freezing
11	Drying of foods
12	Drying of foods
13	Deep-fat frying, exam
14	Deep-fat frying
15	Final Exam

Other Pertinent Course Information

University Regulations: You are reminded of the following university regulations:

1. It is the responsibility of the student to be sure that course prerequisites are met (TAMU Reg 3).
2. Class attendance is an individual student responsibility (TAMU Reg 15).
3. Classroom behavior will be maintained to insure the rights of all students to learn (TAMU Reg. 40).
4. If you have a disability which may require alternate accommodations related to the requirements of this course, please inform the instructor and/or make an appointment with the instructor so that necessary alternative arrangements can be made.
5. It is the responsibility of students and instructors to help maintain scholastic integrity at the university by refusing to participate in or tolerate scholastic dishonesty (TAMU Reg 39).

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Academic Integrity

For additional information please visit: http://aggiehonor.tamu.edu

For many years, Aggies have followed a Code of Honor in an effort to unify the aims of all Aggies toward a high code of ethics and dignity. It functions as a symbol to all Aggies, promoting understanding and loyalty to truth and confidence in each other. Students should refer to the University policy on academic integrity found in the **Honor Council website:** All violations will be handled as specified by University Guidelines.

Aggies do not lie, cheat or steal; nor do they tolerate those who do.