

<p style="text-align: center;">MBIO 4600 Food Microbiology MWF 9:00A – 9:50A, N331 Spring 2012</p>

Instructor	My Lo Thao, Ph.D.
Office/Telephone	N270 / (209) 667-3649
Office hours	W 10:00A-11:30A, R 9:00A-10:30A, or by appointment
E-mail	mlthao@biology.csustan.edu <ul style="list-style-type: none">• best method to contact instructor• please include your name and the course number in the subject line.
Webpage	moodle.csustan.edu

Course Description: Study of the relationship of microorganisms to food-borne disease, food spoilage, and food production as well as food preservation.

Course objectives:

At the end of the course, students will know:

1. The parameters that influence microbial growth in foods.
2. The causes of food spoilage and food-borne microbial diseases.
3. The measures necessary to control spoilage and food-borne illnesses including food preservation to increase the shelf-life of foods.
4. The use of microorganisms in food production

COURSE REQUIREMENTS

Prerequisites: MBIO 3010 or equivalent

Required Text: There is no required text. Students may use the following books as reference.

- Jay, James M. 2005. Modern Food Microbiology, 7th Edition. Springer Science + Business Media, Inc.
- Doyle, Michael P. 2001. Food Microbiology: Fundamentals and Frontiers, 2nd Edition, ASM Press.

ADD/DROP Policies: February 2nd is the last day to add the course and February 22nd is the last day to drop the course. The add/drop policies for this class are the same as the university add/drop policies.

Course Etiquette:

1. Arrive prepared and on time for class.
2. Turn off and put away all cell phones and pagers. No cell phone will be allowed out at any time. If they are taken out, they will be confiscated.
3. Please do not carry on conversations with your neighbors once class has started. Such behavior is highly disrespectful and very distracting to me and to the other students around you.

Grading Policies:

1. **Academic Dishonesty and Misconduct:** There is zero tolerance for cheating. Cheating in any capacity in this class will result in penalties ranging from a minimum of a zero on the assignment or exam to a maximum of expulsion from California State University, Stanislaus as indicated by the official University Policy regarding dishonesty and misconduct. Exams, reports, and/or other assignments are indicators of individual performance. Copying off of another student's exam, plagiarized reports, or other assignments constitutes cheating. If your phone rings during the exam, ten (10) points will be deducted from your exam score. Taking out a cell phone during an exam is considered cheating, your exam will be confiscated, and you will receive zero points for that exam.
2. **Regular class attendance is vital to your success in this course.** You are expected to attend class regularly, come to class on time, and complete assigned readings. Attendance requires not only your

physical presence, but your attention and participation as well. Students who are physically present, but inattentive (including, but not limited to, sleeping, excessive conversation, texting, e-mailing, web-surfing, being disruptive, arriving late, leaving early, etc.) may be asked to leave. Excessive absences or tardiness may result in disenrollment or reduction of grade. You are responsible for any information or assignments you missed in your absence.

3. **Exams:**

- a. Exams are written with the course objectives in mind. Because the information in this course cannot be divided into separate, discreet units, exams will, to some extent, be cumulative. There will be three midterms (75 points each) and a comprehensive final (150 points).
- b. Questions that may appear on exams include multiple choice, matching, short answer, discussion, problem-solving and case study interpretation. You will need Scantron form # 882-E for the exams. Note that:
 - i. Only answers on the scantron will be graded, so transfer answers carefully
 - ii. Take care to erase well those answers you do not want marked
 - iii. Illegible answers in written portion will not be graded.
 - iv. Correct spelling and grammar are necessary for effective communication. Therefore, spelling and/or grammatical errors will result in loss of points on exams.
- c. Unless otherwise stated, exams will begin at the beginning of the scheduled class time. If you are tardy, you will not be given extra time to finish the exam.
- d. You will not be allowed to leave the room until you have finished and turned in your exam.
- e. After graded exams have been returned, you have one week to review exams or dispute errors; no grades will be changes after that time.

4. **Make-up exams only given under extenuating circumstances and only with documentation**

- a. Make-up exams will be different and will consist only of short answers and essay questions. Failure to appear at exam time without 24 hours prior notice to instructor with an appropriate excuse, or an appropriately documented emergency, will result in zero points for that exam.

5. Total points for course = 475

Assignment	Points
3 exams (75 pts each)	225
Outbreak presentation	50
Paper Presentation	50
Comprehensive final exam	150

Note: Presentations are required of all students. For students who do not do the presentations, additional points equal to that of the assignment will be deducted from the total class score. For example, if you do not do the Outbreak Presentation, you will lose 100 points, not just 50 points subtracted from the total points at the end of the semester.

6. **Grading** will be based on a percent scale:

93-100 = A, 90-92 = A-, 87-89 = B+, 83-86 = B, 80-82 = B-, 77-79 = C+, 73-76 = C, 70-72 = C-, 67-69 = D+, 60-66 = D, < 60 = F

Note:

- Take care of your grade. Remember you earn your grade; it is not given to you.
- The instructor reserves the right to reduce your grade due to excessive absences and/or tardiness.
- Grades/scores will not be sent to students via email or be given over the telephone.
- Instructor will not calculate student's scores/grade.

7. **Absolutely no late assignments will be accepted.** Presentation must be given on the assigned date or else it will be considered late.

8. Course Page

Information for the course (**Lecture notes**, objectives, and/or ppt lectures exam scores, syllabus, related materials, etc.) can be found on the course's Moodle page (moodle.csustan.edu). Lecture materials **are copyrighted** and are only for the personal use of students enrolled in the course. **Do not** give the username/password to anyone else. If you do so **no more** material will be provided.

How to enroll in Moodle:

1. Go to the Moodle site - moodle.csustan.edu.
2. Under Course Categories, locate and click on the course you need to enroll in - Microbiology, then MBIO 4600: Food Microbiology.
3. Create a Moodle account (this will be different than your CSU Stan login account). . Please remember your login and password. After your account is created and confirmed you will be able to view your Moodle course site
4. Enter the enrollment key (i.e., password) for the course. The enrollment key is: mbio4600.
5. Once enrolled, go to your 'Profile Settings > Edit Profile'. Make sure that the information there is accurate (*e.g.*, your full name has been entered, your email address is correct). At the bottom of the page enter your student identification number.

Note: Students who fail to correctly register for the Moodle page by February 2, 2012 will be dropped from the class.

***Note: No laptops, cameras, or cell phones are allowed in class.**

Tentative Lecture Schedule (open to revision)

DATE		SUBJECT
Jan	27	Introduction to course
	30	Introduction and history of microorganisms in food
Feb	1	Introduction to Food-borne diseases
	3	
	6	Gram negative food-borne pathogens
	8	
	10	Gram positive food-borne pathogens
	13	
	15	
	17	Food and water borne viral diseases
	20	Exam I
	22	Food and water borne viral diseases (cont'd)
	24	
	27	Protozoa in food
	29	Parasitic worms in foods, Food outbreak presentations due!
Mar	2	Student outbreak presentation (3/lecture period)
	5	
	7	
	9	
	12	Prions in foods
	14	Fungal toxins in foods
	16	
	19	Exam II
	21	Growth and survival of microorganisms in food:
	23	Temperature

DATE		SUBJECT
Mar	26	Water activity as a parameter of growth and survival
	28	
	30	Acids as food preservatives
Apr	2	
	4	Effects of atmosphere on growth and survival
	6	
	9	Spring break!
	11	
	13	
	16	Microbial spoilage patterns
	18	Food Preservation: nitrite, antibiotics, food irradiation
	20	
	23	Exam III
	25	Lactic acid bacteria and lactic fermentation
	27	
	30	Complex fermentations
May	2	Food safety overview and legal issues, Paper presentations due!
	4	Food safety overview and legal issues (cont'd)
	7	Student paper presentation
	9	
	11	
	14	
	16	Reading Day - No Class
	21	COMPREHENSIVE FINAL EXAM (150 points)