Texas A&M University-Texarkana
BIOL 311: General Microbiology
Mondays: 5:00p-8:40p; SCIT 201

Fall 2012 Course Syllabus

I. **Semester Credit Hours:** 3

II. **Course Description:** Introduction to modern microbiology with emphasis on prokaryotes; includes microbial cell structure & function, physiology & metabolism; nutrition, ecology, and growth; taxonomy, genetics, and evolution; bacteriophages and viruses. Prerequisites: Successful completion of two semesters of biology.

III. **Instructor:** Dr. Nurul Alam; Office: SCIT 219; Phone: 903 334-6671; E-mail: nurul.alam@tamut.edu; Office Hours**:** Tuesdays: 5:30p-7:30p; Wednesdays: 11:00am-5:00p; Thursdays: 5:30p-7:30p; other times by appointment only. Please call or e-mail.

IV. **Required Textbooks/Resources:**

Lecture: Foundations in Microbiology, Kathleen Talaro & Barry Chess, 8/e. ISBN: 0073375292.

Lab: Microbiology Laboratory Theory & Appl: Brief Ed., Leboffe ISBN:9780895829474.

V. **Student Learning Outcomes:** After completion of this course, the students should be able to:

- Distinguish between the structure of prokaryotic and eukaryotic cells.
- Select the particular microbial nutritional, growth and control mechanisms of the major classes of bacteria.
- Assess the different ways the microbes use metabolic pathways.
- Evaluate the microbial gene structure, replication, and expression.
- Determine the general characteristics of antimicrobial drugs.

- Investigate physical and chemical control of microbes.
- Demonstrate knowledge of the viruses and bacteriophages.

VI. Course Outline:

Week 1	Main themes of Microbiology
Week 2	The methods for studying microorganisms
Week 3	Prokaryotic microorganisms: Bacteria and Archea
Week 4	Eukaryotic cells and microorganisms
Week 5	Elements of microbial nutrition; ecology and growth
	Exam 1
Week 6	Physical and chemical control of microorganisms
Week 7	An introduction to viruses
Week 8	Antimicrobial agents and chemotherapy
Week 9	Microbial metabolism
Week 10	Microbial genetics
	Exam 2
Week 11	Drugs, microbes, and host
Week 12	Industrial microbiology
Week 13	Environmental microbiology
Week 14	Human-microbe interactions
Week 15	The nature of host defense
	Exam 3

VII. Methods of Evaluation: Quizzes, exams, assignments/homework, and laboratory activities. Three lecture exams each worth 100 points will be given. Exams will be multiple choice and problem-solving format incorporating concepts and activities introduced in class. 10 points will be given for attendance and timely completion of each laboratory session. Any reasonable resource may be used on the quizzes. There may also be unannounced pop-quizzes, some homework assignments, class projects, and take-home exams.

Average of quizzes, homework, and assignments ….. 100 points
Average of lab attendance & activities, lab report/exam …. 200 points
Three lecture exams …. 300 points

_____
Total 600 points

VIII. Grading Scale

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = 0-59%

IX. Library/Media Resources Assessment:

A. Books/Periodicals/Electronic Data Bases/Software/Programs:

N/A

B. Computing/Multimedia/Online Media Resources:

N/A

X. Student Participation:

a. Participation Policy: You are expected to attend all lecture classes. Class attendance is very important since many of the exam questions will be drawn from the class lectures, demonstrations, and discussions. Taking good class notes is essential. Reading the chapter prior to coming to class is also recommended. You are expected to participate in all team project exercises.

b. Course Etiquette: You are expected to be courteous towards the instructor and your classmates. You are expected to be on time for lecture. Cell phones should be turned off during lecture. You should not talk to your classmates while I am talking or while one of your classmates is asking a question. If you have a question about the

course material, ask me and I will be more than happy to answer your question.

c. Discussion Board Standards: Not applicable to this course.

XI. Disability Accommodations:

Students with disabilities may request reasonable accommodations through the A&M-Texarkana Disability Services Office by calling 903-223-3062.

XII. Academic Integrity:

Academic honesty is expected of students enrolled in this course. Cheating on examinations, unauthorized collaboration, falsification of research data, plagiarism, and undocumented use of materials from any source constitute academic dishonesty and may be grounds for a grade of 'F' in the course and/or disciplinary actions. For additional information, see the university catalog.

XIII. A&M-Texarkana Email Address:

Upon application to Texas A&M University-Texarkana an individual will be assigned an A&M-Texarkana email account. This email account will be used to deliver official university correspondence. Each individual is responsible for information sent and received via the university email account and is expected to check the official A&M-Texarkana email account on a frequent and consistent basis. Faculty and students are required to utilize the university email account when communicating about coursework.

XIV. Drop Policy: University Drop Policy:

To drop this course after the census date (see semester calendar), a student must complete the Drop/Withdrawal Request Form, located on the University website http://tamut.edu/Registrar/droppingwithdrawing-from-classes.html) or obtained in the Registrar's Office. The student must submit the signed and completed form to the instructor of each course indicated on the form to be dropped for his/her signature. The signature is not an "approval" to drop, but rather confirmation that the student has discussed the drop/withdrawal with the faculty member. The form must be submitted to the Registrar's office for processing in person, email Registrar@tamut.edu, mail (7101 University Ave., Texarkana, TX 75503) or fax

(903-223-3140). Drop/withdraw forms missing any of the required information will not be accepted by the Registrar's Office for processing. It is the student's responsibility to ensure that the form is completed properly before submission. If a student stops participating in class (attending and submitting assignments) but does not complete and submit the drop/withdrawal form, a final grade based on work completed as outlined in the syllabus will be assigned.

XV. Student Technical Assistance:

- Solutions to common problems and FAQ's for your web-enhanced and online courses are found at this link: http://www.tamut.edu/webcourses/index.php?pageid=37
- If you cannot find your resolution there, you can send in a support request detailing your specific problem here: http://www.tamut.edu/webcourses/gethelp2.php
- Blackboard Helpdesk contacts:
- Office hours are: Monday - Friday, 8:00a to 5:00p
- Julia Allen (main contact) 903-223-3154 julia.allen@tamut.edu
- Frank Miller (alternate) 903-223-3156 frank.miller@tamut.edu
- Nikki Thomson (alternate) 903-223-3083 nikki.thomson@tamut.edu