

# **BIOL 2420-General Microbiology**

# Syllabus (Spring 2020)

# **INSTRUCTOR INFORMATION**

Instructor: Hyun-Joo Nam, PhD Office Location: STC 233 Office Hours: WF 12:30-1:30 PM or by appointment Office Phone: 903-468-8648 University Email Address: Hyun-Joo.Nam@tamuc.edu Preferred Form of Communication: **e-mail** Communication Response Time: 48 hours

# **COURSE INFORMATION**

### **Course Materials:**

Textbook Required: Madigan, Martinko, Dunlab, Clark. 2015. Brock Biology of Microorganisms. Pearson Benjamin Cummings. 14<sup>th</sup> ed. ISBN: 978-0-321-89739-8 Older or Newer editions (12, 13, 15) are also acceptable.

# **Course Description**

Biol 2420 is a course for non-biology majoring undergraduate students designed to provide basic principles of microbial life. The course will cover eukaryotic and prokaryotic microbes and viruses, with major emphasis on bacteria.

# **Student Learning Outcomes**

This course was designed in the hope that, by the end, you will:

- 1. Demonstrate an understanding of the main themes of microbiology
- 2. Differentiate among different groups of microbes.

- 3. Relate the basic concepts of chemistry to the study of microorganisms
- 4. Compare and contrast eukaryotic and prokaryotic genomes and gene expression
- 5. Demonstrate an understanding of viruses
- 6. Demonstrate an understanding of host-microbe relationships
- 7. Demonstrate an understanding of medically important microorganisms and their effects on man

# COURSE REQUIREMENTS

### Minimal Technical Skills Needed

Standard skills necessary to use web browsers to access course materials is required. Students should also be able to submit their work as necessary. Students should be able to use Microsoft Word and PowerPoint.

### **Instructional Methods**

Formal lectures will be supplemented with appropriate audiovisual materials, and assignments. I will post announcements on the home page of the course, announce them in the class or send email notifications.

## **Student Responsibilities or Tips for Success in the Course**

Regular attendance

Submitting assignments before deadlines Checking both course page and emails for course related announcements

# GRADING

Final grades in this course will be based on the following scale:

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

### Assessments

Total course grade is calculated by combining the **lab** grade (separate syllabus) with the **lecture** grade. The **lecture grade counts 75%** while the **lab grade counts 25%** of the total class grade.

Students are expected to attend ALL scheduled lectures and take the exams/quizzes as scheduled. There will be a 6-point credit for attendance. Excused absences as defined in the Student Handbook of the university will be accepted.

There will be three types of assessments that will contribute to the grade. These are:

- 1. Quizzes
- 2. Exams
- 3. Assignments

Distribution:

Quiz = 24% (4 quizzes, 6%/quiz) Exams = 40% (4 exams; 10%/exam) Attendance = 6% Term Paper= 10% Final Exam\* = 20% \*Final exam is a comprehensive exam that will cover all the chapters.

Exams and quizzes consist of multiple-choice, short answer, and/or short essay questions. Questions are drawn from the same test pool. Therefore, some questions may be repeated. Students will take exams and quizzes in the classroom.

Important information:

- 1. There will not be any additional points extra credits. A student's grade will come only from the points he/she earns in the three types of assessments.
- 2. All assignments should be submitted before the deadlines. Late submissions will automatically receive ZERO points.
- 3. All requests for make-up exams/quizzes must accompany supporting documents (e.g. a doctor's note). Such requests should be made within two days after missing the exam/quiz. The reasons for not taking an exam/zero within the designated should be acceptable, as outlined in your student handbook. Forgetting to take the exam/quiz will not be an acceptable reason.
- 4. It is the students' responsibility to check emails and course website for exam/quiz dates and assignment postings & deadlines.

# **TECHNOLOGY REQUIREMENTS**

### LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements: <a href="https://community.brightspace.com/s/article/Brightspace-Platform-Requirements">https://community.brightspace.com/s/article/Brightspace-Platform-Requirements</a>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\_suppo rt.htm

YouSeeU Virtual Classroom Requirements: <u>https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-</u> <u>Requirements</u>

# ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or <u>helpdesk@tamuc.edu</u>.

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

# **COMMUNICATION AND SUPPORT**

If you have any questions or are having difficulties with the course material, please contact your Instructor.

### **Technical Support**

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

#### Interaction with Instructor Statement

Students are encouraged to interact with the instructor during active classroom learning sessions. Response time for Response time to any questions sent by email regarding the course will be within 48 hours. Weekends and holidays are excluded. Students need to use the office hours indicated in this syllabus.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### **Course Specific Procedures/Policies**

Students are expected to attend ALL scheduled lectures and take the exams/quizzes as scheduled. There will be a 6-point credit for attendance. Excused absences as defined in the Student Handbook of the university will be accepted. Students are expected to come to class in time. There are no extra credits and late submissions or missed exams/quiz will result in lower than expected grade.

### Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

# **University Specific Procedures**

### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the <u>Student Guidebook</u>. <u>http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as</u> <u>px</u>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

### TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>. http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

#### **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

# **Students with Disabilities-- ADA Statement**

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 have a disability requiring an accommodation, please contact:

#### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce Gee Library- Room 162 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 Email: <u>studentdisabilityservices@tamuc.edu</u> Website: <u>Office of Student Disability Resources and Services</u> <u>http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServ</u> <u>ices/</u>

### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

# **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun.

Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

# **COURSE OUTLINE / CALENDAR**

Week 1 Jan 13 Meet and Greet Chapter 1. Introduction Chapter 2.1 Microscopy and Microbial Diversity Week 2 Jan 20 Quiz <u>1 Jan 22</u> Chapter 2.1. Microscopy and Microbial Diversity continued Week 3 Jan 27 Chapter 2.2. Chemistry of Cellular Components Week 4 Feb 3 Exam 1 Feb 5 (Chapters 1, 2.1, 2.2) Chapter 2.3. Cellular Components Week 5 Feb 10 **Chapter 3 Microbial Metabolism** Week 6 Feb 17 Quiz 2 Feb 19 Chapter 3 Microbial Metabolism continued Week 7 Feb 24 Chapter 4. Molecular Microbiology Week 8 Mar 2 Exam 2 Mar 4 (Chapters 2.3, 3, 4) Chapter 4. Molecular Microbiology continued Week 9 Mar 9-Spring Break Week 10 Mar 16 Chapter 8. Virus and Virology

Week 11 Mar 23

<u>Quiz 3 Mar 25</u>

Chapter 23. Microbial Interactions with Humans

Week 12 Mar 30

Chapter 25. Immune Mechanisms

Week 13 Apr 6

### Exam 3 Apr 8 (Chapters 4, 8, 23)

Chapter 25. Immune Mechanisms continued

Week 14 Apr 13

Chapter 29. Person-to Person Bacterial and Viral Disease

### Term Paper Due Apr 18

Week 15 Apr 20

Quiz 4 Apr 22

Chapter 30. Vector-borne Bacterial and Viral Disease

Chapter 31 and 37. Waterborne and Foodborne Disease

Week 16 Apr 27

Exam 4 Apr 29 (Chapters 25, 29-31)

### Final Exam\* May 6th 10:30 AM-12:30 PM

Final exam is a comprehensive exam that will cover all the chapters.

\*Please check the academic calendar for details on holidays, start and end dates of the current semester. Semester begins on January 13, 2020. \*ALL DATES AND CHAPTERS COVERED ARE TENTATIVE AND SUBJECT TO CHANGE.