INTRODUCTION:
Welcome to PRE-NURSING MICROBIOLOGY! This course is primarily designed to provide the pre-nursing student with a fundamental understanding of medical microbiology with a focus on those microorganisms that cause disease. The first-half of this course is designed to introduce broad concepts in microbiology including bacteria, protists, parasites, viruses, and fungi. The second-half of the course will cover immunology and microbial diseases by the body systems. There will of necessity be some memorization to allow you to apply facts to building concepts and a well-rounded understanding of this rapidly advancing field of science.

INSTRUCTOR:  My name is Dr. Rebecca Parr. I am an Assistant Professor in Biology. My undergraduate degree (McNeese State University) was a B.S. in MT/ASCP, and I trained and worked at Charity Hospital of New Orleans in microbiology, parasitology and TB/mycology. For my M.S. degree in Veterinary Microbiology at Texas A&M University (TAMU), my research focused on the immunological aspects of Mycobacterium tuberculosis infections. For my Ph.D. project at TAMU, I studied a virus that infects chickens, IBV, that is related to the emerging human pathogens, SARS & MERS. My post-doctoral research experiences are extensive in exploring both viral and cellular aspects of host-pathogen interactions. Additionally, I directed and taught courses in the Professional Science Master program in biotechnology at Arkansas State University (ASU). I have over 30 years experiences teaching both graduate and undergraduate students. Here at Stephan F. Austin State University (SFASU), I can focus on what I love to do most, teaching and research. One of my research interests is to evaluate natural products that can inhibit virus replication. Another one of my interest is to detect animal viruses in nature and determine their importance in recombination with human viruses.

OFFICE HOURS:  My office hours are T 9:00-12:00noon, and Th9:00-11:00am or by appointment. If I am not in my office, I will have a note on my door explaining where I am (so that you can find me if I am in the lab) and when I will return, and I will have my class schedule by the door. If you need to contact me apart from my office hours, please leave an email message. Please make sure you leave both your name and a local phone number where I can return your call. Should you have questions or need additional help, please feel free to contact me at 468-2267 during the day, come by my office (S-112), or leave a note at the Biology Department office (S-101). Also, I prefer to communicate with you through D2L or parr1@sfasu.edu. I check that often. I have an open door policy.

MATERIALS:  Clickers will be required by the Monday of the second week of class. No excuses. The NXT response card (from Turning Technologies) is required. The SFASU bookstore is well stocked with these. I will have instructions on D2L that will guide you through registering your clicker for this class.

2. We will be using the Learning Catalytics classroom participation tool in our course. Sign in to Mastering (Course ID-MMBPARR44064) and click the "Learning Catalytics" link in the "In-Class Learning" area (top right) to verify your access. If you don't have access yet, you are required to purchase access.

3. Learning Catalytics access is included when you buy Mastering with an eText subscription or a new book package. If you bought a Mastering subscription without an eText, you will need to purchase Learning Catalytics access.

4. Lecture notes will be posted on D2L.

5. Lab manual: Specifics will be covered in the first lab period by Mr. Havner.

ACCEPTABLE STUDENT BEHAVIOR: Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment will be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

Standard classroom decorum is expected. Please do not carry on a separate conversation that might be distracting to other students. You will be asked to leave. If you have a cell phone, pager, or other electronic device, please make sure that it is turned off.

The presence of anything on/in your desk, lap, pockets, or in the general vicinity of your seat during exams will not be tolerated. The presence of a cell phone or any other electronic device, either visually or audibly, will result in an automatic grade of “zero” for that exam with no ability to re-take, make-up or replace that exam. The only items allowed at your desk for exams are pens/pencils to write. ALL other materials will be placed at the front of the room prior to administering the exam. All exams must be taken using ink. Any responses on your exam written in pencil will result in a five (5) point deduction from your final course grade.

ATTENDANCE: I strongly suggest that you do not miss any classes this semester. Students will be allowed 5 excused absences (with documentation) this semester without penalty. Upon the next absence, students will receive a reduction of 10 points (= 10%) from their final course grade and be ineligible for any bonus opportunities throughout the semester whether they occurred prior to or after the 2nd absence. This correlates to missing two weeks of lecture. For each additional absence, students will receive an additional 5 points (= 5%) reduction from their final course grade. For the first week, attendance will be taken on a sign in sheet. It is your responsibility for you to sign this (not your friend). After the first week, attendance will be taken by using the clickers. No excuses. If you use the clicker at the start of class and leave before the end of class, you will be marked as absent. Sometimes, we will have a
signature roster at the end of class. If you fail to sign the signature roster, you will be counted absent regardless of whether you were in class or not. No one else may sign the roster for you, but if you disregard this, both of you will be counted absent.

There will be no distinction between excused and unexcused absences in counting absences. Legitimate excuses for absences only affect whether students may be given an opportunity to make-up work. Students must inform the instructor well in advance of the day of absence so that suitable arrangements may be made. Absences caused by bona fide emergencies may be excused after occurrence with suitable documentation, and make-up opportunities may be provided only if possible or practical at the judgment of the instructor. There is no guarantee that an opportunity for make-up work will be provided.

Homework will be assigned in class and posted on D2L. Each assignment must be submitted before the due date that will be posted on D2L and announced in class. There will be no opportunity for make-up homework, no exceptions!

Missing an exam will be permitted only by prior arrangement, by death, or by a near death experiences. Please contact me if there is a problem. Quizes/Exams will be administered at the beginning of the lecture period. Any student who arrives late for quizes/exams must complete the quizzes/exams in the time allotted at the beginning of the lecture period. Any student who arrives to class after an exam has been turned in will not be allowed to take the exam, will be counted absent, and will receive a 0% for that quiz/exam. There will be no opportunity for making up missed quizzes. Make up exams will be given one time towards the end of the semester at the discretion of the instructor. You are responsible to make sure that you have completed all your exams before the final.

ACADEMIC INTEGRITY (A-9.1): Abiding by university policy on academic integrity is a responsibility of all university faculty and students. Faculty members must promote the components of academic integrity in their instruction, and course syllabi are required to provide information about penalties for cheating and plagiarism as well as the appeal process. (Much of this information will be provided through internet links.)

DEFINITION OF ACADEMIC DISHONESTY: Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to: (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) falsification or invention of any information, including citations, on an assignment; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism include, but are not limited to: (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from the Internet or another source; and (3) incorporating the words or ideas of an author into one's paper or presentation without giving the author due credit.

Please read the complete policy and the appeals process at

http://www.sfasu.edu/policies/academic_integrity.asp and
http://www.sfasu.edu/policies/academic_appeals_students.asp

WITHHELD GRADES (Semester Grades Policy A-54): At the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only
if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future semesters, the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

STUDENTS WITH DISABILITIES: To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

F-1 VISA HOLDERS: There are important federal regulations pertaining to distance education activity for F-1 Visa holders. All students with an F-1 Visa should follow the instructions at the following link to make sure they are in compliance. http://www.oit.sfasu.edu/disted/facsup/f1visa.html

COURSE EVALUATION: All students are required to complete a course evaluation at the end of the semester (details on availability will come later) for both the lecture AND lab sections. Failure to complete both of these evaluations will result in a 2% deduction (1% for lecture and 1% for lab evaluations) in your final grade for the course.

REQUIREMENTS: The grade in this course is based on the following criteria. Please remember that lecture and laboratory grades are computed into one grade. If you fail the laboratory or the lecture, you will fail the course. The lab portion counts 25% while the lecture portion counts 75% of your final grade. Requirements for the course are summarized below:

1. **Lecture and Final Exams (62%)**: There will be four lecture exams and a comprehensive final during the semester. The syllabus lists the tentative scheduled dates of these exams. Each exam is worth 12.4% of your final grade for the course. Exams will NOT be returned. However, grades will be posted in a timely manner on the D2L, and you are free to come to my office to view your exams prior to finals week.

2. **Homework, Quiz, Class Participation, and Class assignments (13%)**: ALL scores of homework, quiz, participation and class assignments will be combined and calculated as 8% of your final grade.

3. **Final Exam**: The final exam will be comprehensive, meaning that it will cover everything throughout the entire semester. All students will take the final exam at the end of the semester.

4. **Lab Grade (25%)**: As noted above, you will receive a separate lab grade that will be used to calculate one final grade for the course. Therefore, it is worth 25% of your final grade for the course.

**Summary of Course Grade**
Four lecture and final exams @ 12.4% each = 62%

Homework, participation, & assignments = 13%
Lab Grade = 25%

Grading Scale
90.0 – 100.0% = A
80.0 – 89.5% = B
70.0 – 79.5% = C
60.0 – 69.5% = D
Below 59.5% = F

PROGRAM LEARNING OUTCOMES: Each of the student learning outcomes listed below address the Biology Department Program Learning Outcome #1: Demonstrate a good knowledge base in biological concepts and be able to integrate knowledge with critical thinking skills to become problem solvers. Knowledge base will include: levels of complexity (molecular/cellular through population/communities/ecosystems); biological principles and processes.

COURSE OBJECTIVES: Differentiate viruses, bacteria, fungi, algae and protozoans and interactions with man and the environment.
- Understand the implications of the presence and functions of microorganisms
- Understand microorganisms grow requirements and how it can be controlled
- Understand the techniques used to study and identify microorganisms
- Understand pathogenesis, epidemiology, and treatment of microbial diseases affecting human body.

STUDENT LEARNING OUTCOMES Students who successfully complete Microbiology will develop an understanding of the following:
- ability to identify the role of microorganisms in human history and health
- the importance and roles of microorganisms within the biosphere
- Importance of cell structure, function, growth, and pathogenesis of microorganisms for human health
- the taxonomic descriptions and distinctions of pathogenic eukaryotic microorganisms
- the distinctions and peculiarities of the viruses
- nutritional and environmental influences on cell growth and control of cell growth
- the binomial classification system used in microbiology and the ability to identify significant species.
- the physical, chemical and antibiotic control of microorganisms
- the human immune response to infection by microorganisms
- the diagnosis, pathogenesis, epidemiology, and treatment of microbial diseases
### Tentative Schedule for Spring 2016

<table>
<thead>
<tr>
<th>BIO 308</th>
<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td><strong>Week 1 (1/20)</strong></td>
<td>MLK holiday</td>
<td>Introduce course and syllabus Intro (1) Chemistry (2)</td>
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<tr>
<td><strong>Week 2 (1/25 – 1/27)</strong></td>
<td>Cell Structure and Function (3)</td>
<td>Microbial metabolism (5)</td>
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<td><strong>Week 3 (2/1 – 2/3)</strong></td>
<td>Microbial nutrition &amp; growth (6)</td>
<td>Microbial genetics (7)</td>
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<tr>
<td><strong>Week 4 (2/8 – 2/10)</strong></td>
<td>Microbial genetics (7)</td>
<td><strong>EXAM 1</strong> Test 1 (1,2,3,5,6,&amp;7)</td>
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<td><strong>Week 5 (2/15 – 2/17)</strong></td>
<td>Controlling microbial growth (9) Anti-microbial drugs (10)</td>
<td>Parasites &amp; Fungi (outside source)</td>
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<tr>
<td><strong>Week 6 (2/22 – 2/24)</strong></td>
<td>Parasites &amp; Fungi (outside source)</td>
<td>Viruses (13)</td>
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<tr>
<td><strong>Week 7 (2/29 – 3/2)</strong></td>
<td>Viruses (outside source)</td>
<td><strong>EXAM 2</strong> Test 2 (9,10,P&amp;F,13)</td>
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<tr>
<td><strong>Week 8 (3/7 – 3/9)</strong></td>
<td>Epidemiology (14)</td>
<td>Host Defense (15,16,17)</td>
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<td><strong>Week 9 (3/14 – 3/16)</strong></td>
<td><strong>Spring Break</strong></td>
<td><strong>Spring Break</strong></td>
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<tr>
<td><strong>Week 11 (3/28 – 3/30)</strong></td>
<td><strong>Easter Break</strong></td>
<td>AIDS and other Immune disorders(18)</td>
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<tr>
<td><strong>Week 12 (4/4 – 4/6)</strong></td>
<td><strong>EXAM 3</strong> Test 3 (14,15,16,17,18)</td>
<td>Skin and Wounds (19)</td>
</tr>
<tr>
<td><strong>Week 13 (4/11 – 4/13)</strong></td>
<td>Nervous system (20)</td>
<td>Cardiovascular &amp; systemic diseases (21)</td>
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<tr>
<td><strong>Week 14 (4/18 – 4/20)</strong></td>
<td>Cardiovascular &amp; systemic diseases (21)</td>
<td>Respiratory System (22)</td>
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<tr>
<td><strong>Week 15 (4/25 – 4/27)</strong></td>
<td>Respiratory System (22)</td>
<td>Digestive System (23)</td>
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</table>
| **Week 16 (5/2–5/4)** | Urinary & Reproductive Systems (24) | **EXAM 4**
| | | Test 4 (19, 20, 21, 22, 23, 24) |
| **FINAL EXAM**
| **Week 16 (5/9–5/13)** | 10:30am -12:30pm Friday, May 13, 2016 Final Exam |

*** Please note that this is only a *tentative* schedule, and is subject to change***