

GENERAL COURSE INFORMATION:**Course Title: Microbiology****Course Number: 5203****Trimester Credit Hours: 4****Total Contact Hours per Trimester: 75****Class meeting time: 7:00 a.m. to 7:50 a.m.****Lab Hours Per Week: 2****Lab Contact Hours/Trimester: 30****Course Director: Dr. Anjum Odhwani****Email Address: aodhwani@parkercc.edu****Phone number: 972-438-6932 ext. 7307****Office Hours: Mon to Thurs 12:00 to 12:50 p.m.****Lab Director/Instructors: Dr. Anjum Odhwani****COURSE DESCRIPTION:**

This course supports the mission statement of Parker College by helping to create leaders who promote Chiropractic wellness through high standards of education, research and service. Microbiology is a four credit hour lecture/laboratory course. Microbiology is the study of microorganisms. Microorganisms include bacteria, fungi, viruses, rickettsia, protozoa, and helminthes. Topics include growth, reproduction, nutrition, genetics, infectious processes, defense mechanisms, control of microorganisms, emerging and reemerging infectious diseases and development of resistance to antimicrobial chemicals. Laboratory exercises develop fundamental skills in aseptic technique, microscopy, pure culture study, and the isolation and identification of pathogenic microorganisms.

LEARNING OBJECTIVES:

At the completion of this course, the student should:

1. Describe the historical perspectives important in the development of microbiology and the current diversity in the field to include the germ theory and the microbes being studied.
2. Compare and contrast eukaryotic and prokaryotic cells and their specific structures with functions.
3. Describe metabolism, enzymes, their nomenclature, structure, and functions.
4. Compare and contrast the characteristics of DNA and RNA and explain the importance of gene expression.
5. To recognize the structural components of microbes (bacteria, fungi and viruses) and how these impact the pathogenesis of disease.
6. To know the common microorganisms associated with specific clinical diseases, their signs and symptoms, pathogenesis, epidemiology, prevention and treatment.
7. To develop the ability to correlate the clinical picture with laboratory information to establish a diagnosis.
8. To enhance critical thinking and problem-solving skills by working on case studies.

Lab Objectives: At the completion of this course, the student should be able to:

1. Demonstrate the correct use of a compound light microscope.
2. Describe colonial morphology using accepted descriptive terms

3. Compare bacterial growth on solid and liquid culture media
4. Aseptically transfer bacteria from one form of culture medium to another
5. Explain the basic mechanism of staining
6. Explain the application and mechanism of the negative staining technique
7. Explain the rationale and procedure for the Gram stain, acid fast stain and endospore stain.
8. Using prepared slides, interpret endospore, capsule, and flagella stains.
9. Characterize and classify fungi
10. Proper techniques will be demonstrated and required for all laboratory exercises because students will be working with living microorganisms. Some of the organisms are pathogens and can be a health hazard. Careful work habits will protect all of us in the laboratory from accidental infection

PREREQUISITES: Cells and Tissues & Biochemistry or concurrent enrollment.

REQUIRED TEXTBOOKS: *Microbiology: A Human Prospective*, Nester, Roberts, Anderson, and Nester, 6th Edition (McGraw Hill).

SUPPLIES: Lab coat (not one worn in clinic or Gross Lab); coats must have long sleeves and reach to the mid-thigh if possible and closed toe shoes for laboratory.

EVALUATION AND GRADING POLICY:

Lecture exams	
Lecture Exam 1	12%
Lecture Exam 2	12%
Lecture Exam 3	12%
Lecture Exam 4	12%
Comprehensive Final	12 %
Lab Practical	
Lab Practical 1	10%
Lab Practical 2	10%
Lab Attendance	10% total grade (10 pts/lab)
Pop Quizzes	10%

Grade	Numerical Value	Grade Point Average	Interpretation of Academic Achievement
A	89.5 – 100	4.0	Excellent
B	79.5 - 89.49	3.0	Above Average
C	69.5 - 79.49	2.0	Satisfactory
F	69.49 or Below	0.0	Unacceptable

ESTIMATE OF STUDENT WORK LOAD: 1-2 hours per day outside of the class to review the lecture and prepare for quizzes.

STUDENTS WITH SPECIAL NEEDS: Any student with special needs can contact the Office of Student Affairs and get their particular situation figured out prior to the beginning of testing.

90/90 RULE:

A student who has a 90 or better average in this course (for all exams, lab practicals and lab quizzes) and who has attended class 90% or more of the class meetings, including labs, will have the option of being exempted from taking the final exam. Faculty will notify students who qualify for 90/90 via e-mail.

QUIZZES:

During entire trimester 7 quizzes are given out of that one lowest quiz grade is dropped. Faculty will announce day of the quiz in the class. There will be no makeup quizzes

EXAMINATIONS: Make-up Exams/Lab Practical

You must be on time for the Exam or Lab Practical as no Exams are passed out once the first student leaves the exam room. Exams/Lab Practicals are scheduled well in advance so that students can plan appropriately. If a student must be absent from an exam/lab practical, it is the student's responsibility to notify the Course Director no later than the scheduled starting time of the exam/lab practical. Failure to notify the Course Director could result in the student receiving a grade of "0" for the missed exam/lab practical. (See missed exam policy below)

Exam dates can only be changed by the course director, under the direct guidance of the trimester faculty coordinator.

ALTERING GRADES ON EXAMS:

Evaluation of the scantron analysis sheet will reveal the numbers or percent of students who miss each question. If 60% or more of students answer a question incorrectly then the question comes under academic scrutiny by the course director. If the question is mis-keyed, then the scantron should all be regraded giving students credit for the correct answer and taking points off for incorrect answers. If it is determined the question is poorly worded is misleading or a bad question then there are several options.

- 1) The questions can be removed from the exam and the grades recalculated based on one

- less question, i.e. Calculating the grade on 49/50 questions.
- 2) Points can be added to student's exams that missed the question only, that way everybody gets credit for the question.
 - 3) Points can be added to all students' exams, thereby giving credit to those who missed the question and giving extra points to those who got it right.

MISSED EXAM POLICY:

The course director should be contacted prior to an exam if a student has any questions about the validity of an excuse to miss an exam or lab practical. If a student has to miss an exam or lab practical, the course director must be notified **PRIOR** to the exam unless the student is physically incapable of notifying the course director and then written documentation must be provided to this effect. Notification must be email or a phone call to the course director. If a student fails to notify the course director prior to exam start time (or in the case of documented physical incapacitation within a 24-hour period of a missed exam) the exam grade will be calculated as a "0".

Students must be on time for all examinations. If a student is late, and no one has left the examination room, they will be allowed to take the examination, but no additional time will be allowed. If a student comes in late for any exam (including final exams) and another student taking the exam has already left the classroom, the late student will not be allowed to sit the exam, and the exam grade will be calculated as a "0".

With documentation of extenuating circumstances for late arrival or for missing a written exam, faculty may either give a written make-up (multiple choice, true/false, essay, etc.) or move the points to the final exam. The make-up exam (which will be a different exam and may or may not be of the same format or same level of difficulty as the exam given to the rest of the class) must be taken within 5 business days of the missed exam unless the student is physically incapable of doing so or unless other arrangements are made by the course director. The exam time will be scheduled at the discretion of the course director.

There are NO makeup lecture exams or lab practicals barring any unforeseen emergencies or extra ordinary circumstances the student might encounter. Each case of a missed exam is judged on an individual basis and the determination as to whether to give or not to give a make up exam to any given student at any given time is at the sole discretion of the course director. You must be on time for the Exam or Lab Practical as no Exams are passed out once the first student leaves the exam room. Vacation, leisure travel and seminar attendance do not constitute extra ordinary circumstances.

With documentation of extenuating circumstances for late arrival or for missing a lab practical, points may be moved to the final lab practical or student must take a make-up lab practical (which will be a different lab practical and may or may not be of the same format or same level of difficulty as the lab practical given to the rest of the class) within 5 business days unless the student is physically incapable of doing so or unless other arrangements are made by the course director. The time of the make up lab practical will be scheduled at the discretion of the course director.

If a student encounters an extenuating circumstance where they feel they will not be able to perform to their abilities on any given exam, lab practical or final exam, they must notify the course director prior to the exam start time. Once a student takes an exam, even

if the student is in a less than optimal physical or emotional condition, the exam grade will be final.

VACATION, LEISURE TRAVEL, SEMINAR ATTENDANCE, OVER SLEEPING, FORGETTING WHEN THE EXAM IS GIVEN, STUCK IN TRAFFIC, etc. DO NOT CONSTITUTE EXTRA ORDINARY OR EXTENUATING CIRCUMSTANCES FOR MISSING ANY EXAM.

LABORATORY:

- Each student will receive 100 Pts for lab. If student
 - Misses one lab- 10 points are deducted
 - Misses two labs – 20 points are deducted
 - Misses three labs -30 points are deducted
 - Misses four labs- F in the course
 - In extenuating circumstances along with the presentation of valid document the student will be allowed to makeup the lab.

OPEN LABS:

Open review labs are held on times to be announced each trimester. Exact times may vary and exact times WBA. Lab models may not be taken from the lab room.

EXTRA CREDIT: None

LECTURE EXAM REVIEW:

The review period for each exam will begin after the posting of the grades and last for five working days only, excluding weekends and holidays. Questions about the final exam and/or final course grades must be reviewed with the Course Director by 3:00 p.m. the third day of the new trimester.

CLASSROOM BEHAVIOR:

Parker College of Chiropractic is a private first professional degree granting institution. As such, we expect our students and faculty to conduct themselves with honesty and integrity. Therefore, each student is expected to uphold high ethical standards both inside and outside of the classroom. The classroom should be an environment for learning; behavior that is considered disruptive by the course director, behavior that in the eyes of the receiver belittles another, or behavior which discourages others from achieving their academic goals has no place and will not be tolerated in the classroom. Individuals engaging in this type of behaviors will be asked to leave the classroom. Repeat offenders will be referred to the Department Chairperson and may face penalties that could include suspension from the Institution.

PROFESSIONAL DECORUM:

Students are expected to behave in a professional manner at all times. Positive contributions to the learning environment and participation in classroom learning activities are expected. Students should demonstrate courtesy to the instructor, to special guest speakers, and to other classmates. Focusing your attention on anything other than pertinent classroom material could be considered discourteous. Any person who is

discourteous or disrupts the class with unprofessional conduct may be asked to leave the classroom and will be counted absent for that class period. Cell phones and pagers should be turned off while in the classroom.

ACADEMIC DISHONESTY:

Academic dishonesty is directly counter to the goals and ideals of every academic institution and will not be tolerated at Parker College of Chiropractic. A substantiated allegation of academic dishonesty brought against a student may result in dismissal from the institution. Appropriate designated individuals within the Institution will judge cases of alleged academic dishonesty according to the principles, policies and procedures outlined in the Student Handbook. Cheating on quizzes, assignments, exams, and/or lab practicals will not be tolerated. Cheating is defined as an individual or group activity for the purpose of dishonestly obtaining and/or distributing testable information prior to, during, or after an examination. Examples of dishonest activities include, but are not limited to:

- a. Looking at an examination paper or answer sheet of another student during the course of an examination.
- b. Obtaining unauthorized information about the exam prior to the administration of the exam.
- c. Possessing or distributing an exam prior to its administration, without the express written permission of the instructor.
- d. Using any unauthorized materials or equipment during an examination.
- e. Giving or receiving any form of unauthorized aid while completing any of the requirements for this course.
- f. Giving answers to other students during an exam.
- g. Cooperating or aiding in any of the above

Students must read and sign the cover page present on all exams prior to taking the examination. The cover sheet contains a more inclusive list of what will be considered dishonest academic behavior. This cover sheet must be submitted when student turns in their exam or exam answer sheet.

Plagiarism will not be tolerated. Plagiarism is defined as any attempt to represent someone else's words or ideas (whether published or unpublished) as one's own.

Examples of such activities include, but are not limited to, the following:

- a. Using the words of a published source in a written exercise without appropriate documentation.
- b. Presenting as one's own original concepts, ideas, and/or arguments of another source.
- c. Presenting as one's own another's scientific research, case studies, etc. without properly acknowledging the source of the material.
- d. Any student(s) violating this policy will be subject to the policy on academic dishonesty.

Alteration or falsification of records will not be tolerated. Examples include but are not limited to:

- a. Signing another student's name on the class roll sheet
- b. Changing an answer to an already graded exam in order to falsely negotiate for a higher grade.
- c. Altering entries in any way in any college record. Sabotage will not be tolerated.

Examples include but are not limited to, the following:

a. Stealing, destroying or altering another's academic work. Substitution will not be tolerated. Substitution is defined as using a proxy or acting as a proxy in an academic exercise. Examples include, but are not limited to, the following:

- a. Taking an examination for another student.
- b. Doing homework assignments for another student.
- c. Using someone else's homework assignment and substituting it for your own original work.

The course director, upon becoming aware of a possible instance of academic dishonesty shall:

1. Notify the student of the charge against him/her.
2. Determine whether in the faculty member's view the student is guilty of the infraction; if so will report the infraction to the appropriate Department Chair person at which time one or more of the following courses of action may be taken:
 - a. The case may be decided and dealt with on the instructor level in cases of minor infractions.
 - b. In cases of more severe infraction, the case will be referred to the Dean of Academic Affairs, where the case may be referred on to the Dean of Students and determination will then be made whether the case warrants being brought before the Academic and Professional Standards Committee.

One or more of the following penalties may be imposed once academic dishonesty has been substantiated:

- a. A written record of the infraction will be included in the student's permanent file.
- b. A failing grade on the exam, lab practical, paper or project.
- c. A failing grade in the course.
- d. Suspension from the Institution.
- e. Permanent dismissal from the Institution.
- f. Exclusion from participation in any extracurricular activities of the Institution

Any writing, erasures, marks, etc. on a scantron sheet submitted by the student for any exam/lab practical/quiz, etc., other than those marks or erasures directly pertaining to the marking of the bubbles on the scantron sheet will be considered cheating and if discovered, the student will receive a grade of zero on that exam/lab practical/quiz and appropriate disciplinary action will be taken which could result in the student being suspension or dismissal from the Institution.

ATTENDANCE POLICY:

Attendance roll sheets are passed out at the beginning of each class. To be counted present for a class you must be present, in your seat and you must sign the roll sheet when the roll sheet comes past your seat. Roll sheets will be picked up by the instructor once they have passed through all rows of the classroom. No student will be allowed to sign the roll sheet once it is picked up by the instructor. It is the student's responsibility to be on time and in their seats when the class starts and the roll sheets are passed out.

A professional education at Parker College requires a full time commitment by the student. Classes are demanding and academic standards are high. Students must expect to spend a significant part of each day in and out of class to successfully complete the

program. Full realization of the learning process is reliant upon the fact that students are expected to attend and be attentive and participatory in all lecture and laboratory classes. Students must attend classes on a regular basis to attain the skill, training and expertise they will need to become successful Doctors of Chiropractic. It is in this light that Parker College of Chiropractic considers classroom attendance to be mandatory in all scheduled classes and laboratory sessions and failure of the student to attend classes and/or laboratory sessions could result in poor academic performance by the student, possible grade reduction and/or the student receiving a failing grade in the class. Classroom attendance is monitored by the use of a roll sheet that is passed around the classroom at the beginning of each class. Student attendance is documented by the presence of the student's signature on the roll sheet. Failure to sign the roll sheet by a student will result in the student being counted absent from that class session. Students may in fact be bodily present in the class, but if the student's signature does not appear on the roll sheet associated with their name then the student is absent from that class session.

Student attendance in lectures and laboratory sessions is a factor in deriving a student's final course grade. Students who miss more than 20% of the total contact hours in any given course will have their final course grade reduced by one whole letter grade. Students who miss more than 50% of the total contact hours in any given course will be dropped from the course with the grade of F. If class was held and you were not in attendance, you will be counted absent, regardless of the reason. As an example: if a course is a three credit hour class = 45 contact hours, the student could miss up to 9 hours of class (lecture and lab) before they are dropped one letter grade. If you have any questions about your attendance in a course you need to address the course director.

Students who are repeating a course because of previous academic failure are required by the Dean of Academic Affairs to attend all lectures and labs of the course in question. A student on Academic Probation is required to attend all lectures, laboratory sessions and scheduled academic conferences. If a faculty member in a department finds that a student is not meeting this attendance requirement, the student will be notified in writing with a copy of the letter sent to the office of the Dean of Academic Affairs.

The student is responsible for obtaining and learning subject materials presented during an absence. When the period of absence is known and may be planned, the student must confer with the appropriate course director and determine a plan of action for that absence. Absence from any examination (lecture or lab) must be accompanied by a written excuse documenting the extenuating circumstance which prevented the student from sitting the examination. If the excuse is considered valid by the course director then arrangements to sit the exam must be made with the course director within 5 days of the student returning to class (see Missed Exam Policy).

The licensing requirements of the states vary widely. Some state boards require a specific number of classroom hours in order to obtain a license to practice as a Doctor of Chiropractic in their respective states. It is the student's responsibility to determine, fulfill and document the requirements of the state(s) in which they are planning to apply for

licensure. These requirements are available from the individual state boards and kept in the Office of the Registrar for the student to review.

Tardiness is disruptive to the class. Each student should make every attempt to get to class on time. A professor may refuse to allow to a tardy student to enter the classroom. A student who is tardy to a class and does not sign the roll sheet when it passes his/her seat will be counted absent for that class period.

ABSENCES FOR RELIGIOUS HOLIDAYS:

Parker College will excuse students from attending classes and other required activities for the observance of religious holidays, including travel for that purpose.

A religious holiday means a day of observance by a religion whose places of worship is exempt from property taxation under Section 11.20 of the Texas Tax Code (or would be exempt if the place of worship was located in Texas).

A student whose absence is excused under this policy may not be penalized. Those students will be allowed to take examinations or complete any assignments they missed due to observance of the religious holy day (see missed exam policy). With the student's agreement, the course director may move the points from the missed examination or assignment to the final exam in that course or make other arrangements to make up the missed exam or work. A student may be required to show written documentation.

A student who will miss an examination or assignment for the observance of a religious holy day should notify the course directors of all courses affected **prior to** the absence.

If a student and a faculty member disagree about whether an absence is for the observance of a religious holy day or whether the faculty member has allowed the student a reasonable time to complete any missed examinations or assignments (see missed exam policy), the faculty member or the student may request a ruling from the Dean of Academic Affairs. The student and the faculty member will abide by the decision of the Dean of Academic Affairs.

STUDENT BEREAVEMENT POLICY:

In the unfortunate event that you experience a death in your family, please rest assured that Parker College will help you during this time of your loss. When you are ready, the Dean of Academic Affairs will review the accommodations available to you to help you resume your studies.

Action Steps:

- If you experience a death in your family, please notify the Dean of Academic Affairs' office as soon as possible. You may send the notice by telephone or email. You may send the notice personally or have it sent by a roommate, friend, or family member. The Dean will contact your instructors and ask them to assist you when you resume your studies.
- When you return to campus, please schedule a meeting with the Dean of Academic Affairs to discuss support resources available to you through the Office

of Student Affairs and to discuss strategies for catching up with missed academic work and for completing the trimester successfully.

Assistance and Accommodation:

The options for assistance or accommodation include the following:

- Excused Absences.
- Counseling with the counselors in Student Affairs or referral to another counselor.
- Alternate arrangements for completing coursework, subject to the Missed Exam Policy.
- Withdrawal from some courses to reduce your course load.
- Incomplete grades in one or more courses.
- Withdrawing from the College and taking a leave of absence.

The Dean of Academic Affairs will hear your situation and then help you decide what actions are in your best interest and will facilitate the communications between you and your instructors.

Excused Absences:

We understand that in the immediate aftermath of the loss of a loved one, your classes and labs may be the farthest thing from your mind. We encourage students to take the following excused absences from their classes and labs:

- 5 school days if bereavement is for the death of the student's spouse or child (including step-children, foster children, adopted children and in-laws).
- 3 school days if it is the death of a student's immediate family, other than a spouse or child. The immediate family includes parents (including step-parents, foster parents and in-laws), legal guardians, brothers and sisters (including step-siblings and in-laws), grandparents, grandchildren, aunts and uncles.
- 1 school day to attend the funeral of a niece, nephew or cousin.
- 2 additional school days if the family member lived more than 200 miles from Dallas or the funeral will be held more than 200 miles from Dallas.

The Dean of Academic Affairs will forward requests for bereavement leave to the student's course directors. The Dean may request a funeral or obituary notice.

COMPUTER USAGE:

Students are encouraged to utilize personal computers in the classroom for taking notes, following the lecture outlines or reference materials, etc. Other uses unrelated to the lecture topic are not allowed. As an example, surfing the Internet or playing games during lecture or lab time is strictly prohibited and will result in the student being asked to discontinue use of their computers. In addition, the student may be asked to leave the classroom and will be counted absent for that class period.

AUDIO/VIDEO TAPING:

Since the courts have ruled that a professor's voice and physical image are their personal property, the prerogative of the audiotaping and/or video recording of lectures/laboratories is a right specifically reserved to faculty. Should you wish to record, using any device you must obtain the permission the respective instructor in all classes. You are not allowed to audio or video tape lectures of labs in Systemic Anatomy.

IMPORTANT NOTE:

The provisions contained in this syllabus do not constitute a binding contract between the student and the Parker College of Chiropractic. These provisions may be changed at any time and for any reason at the discretion of the Course Director. When it is necessary to make changes to this document, appropriate notice (at least one week, if possible) will be given to the student(s).