Instructor Information

Instructor: Tammy Richardson
Office: PTC South Campus (LRS), #233
Mailbox: PTC Main Campus, Slot 261
Email: trichardson@uaptc.edu

All emails and calls will receive a response within two business days. If your emails and calls do not receive a response within two business days, the appropriate chain of command is below.

Chair: Thomas Russell 501-812-2705 trussell@uaptc.edu
Dean: Marico Bryant-Howe 501-812-2342 mbryanhowe@uaptc.edu

Course Information

Lab: Tu & Th 4:30 p.m. – 6:00 p.m. LRS 209
Lecture: Tu & Th 6:15 p.m. – 7:45 p.m. LRS 213

Catalog Description  4 Credit Hours (3 lecture hours & 3 laboratory hours per week)
This course is an introductory course in microbiological concepts, including the study of bacteria, viruses, fungi and protozoa as they affect the human body. This course is designed for majors in health professions programs. PREREQUISITE(S):

- Completion of BIOL 1401 with a grade of “C” or better; OR
- Completion of high school AP/IB Biology with an A or B, completion/testing out of all developmental education classes, and permission of the Department Chair.

Course Materials

Lab: Laboratory Experiments in Microbiology. (Johnson, Case, 12th edition, Pearson).

The UA-PTC library sells a smaller, cheaper version of the lab manual with just the labs we cover.

Materials provided to you on Blackboard and in lecture/lab.

Mission Statement

University of Arkansas – Pulaski Technical College provides access to high-quality education that promotes student learning and enables individuals to develop to their fullest potential.

Institutional Learning Outcomes and General Education

UA-PTC supports a college-wide institutional learning assessment program which concerns effective instructional methods and promotes student learning achievement by assessing:

1. Communication
2. Critical Thinking
3. Cultural Awareness
4. Information Literacy
5. Professionalism
6. Quantitative Literacy
7. Technology Literacy

For more information, please consult the following website: https://uaptc.edu/sla
Biology Department/Discipline or Program Learning Outcomes
The mission of Biology discipline at UA-PTC is to provide high-quality education to students through developing the fundamental skills and knowledge to make informed decisions as individuals and members of society. We encourage critical thinking and life-long learning about the unity, diversity and interrelatedness of living things.

The Biology discipline, consistent with the College’s mission and the Division’s objectives, encourages the success of its students in all technical fields and academic disciplines by:

1. Demonstrating critical and independent thinking through biological investigation
2. Demonstrating professionalism in communication and collaboration
3. Analyzing the influence of scientific thought on individuals and society
4. Demonstrating proper use of biological instrumentation and laboratory techniques

Student Learning / Course Outcomes
The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of:

- History of microbiology
- Biological and chemical concepts, as applied to microorganisms
- Basic classification, characteristics and behavior of microorganisms
- Host-microbe interactions that result in infection
- Fundamentals of immunology
- Principles of asepsis, sterilization, and disinfection
- General methods for the prevention and control of infectious disease transmission
- Microbial growth
- Microbial genetics

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of:

- Use of microscope
- Preparation of stains
- General lab techniques, including aseptic technique and identification methods

Microbiology Course Learning Outcomes
By the end of the course, the students will be able to:

1. Describe the diversity of microbes, bacterial cell structure and function, microbial growth and metabolism, and ways to control their growth by physical and chemical means.
2. Explain the basic genetic systems of bacteria, bacteriophages, and plasmids and their roles in biotechnology and medicine.
3. Examine the development of public health and how medical scientific principles are applied for prevention and control of known and new diseases.
4. Demonstrate practical skills in fundamental microbiological techniques.
Policies

Report a Complaint or Concern
UA-PTC takes very seriously complaints and concerns regarding the institution. Most complaints or concerns of a specific nature should be initiated and resolved at the campus level through normal college processes whenever possible. UA - Pulaski Technical College receives and resolves complaints using a variety of methods. To report a complaint or concern, please follow the link: https://www.uaptc.edu/report-a-concern-complaint

UA-PTC Attendance Policy
Education at UA-PTC requires students’ active involvement in the learning process. Thus, students are expected to attend all classes and actively engage in all learning assignments and/or opportunities provided in their classes. Class attendance should be treated as mandatory by all students as attendance will be taken by all instructors during the first two weeks of class. Any student who does not attend class the first two weeks of class will be considered a “no show” according to the campus attendance policy, will be reported as such, and dropped from the class. Additionally, a written policy on student attendance that is tied to course objectives and included in a course syllabus will be provided for each course by instructors.

Departmental Attendance Policy
You will be given a failing grade of “F” for the course if you miss more than 25% of lab sessions regardless of your grade. You will be given a failing grade of “F” for the course if you miss more than 25% of lab sessions regardless of your grade. Arriving more than 15 minutes late to class will be counted as an absence.

Course Policies
The rules and regulations in the PTC Catalog will be enforced in this class at all times. For more information, please visit: https://www.uaptc.edu/catalog.

Professional behavior is required. Punctual attendance and intelligent participation are expected.

A. Course Content. Lectures will cover the main points of the chapters. You should expect to spend 2 hours studying/preparing for each credit hour for any college-level class.

B. Assessment: A microscope and Gram Stain assessment (or compare and contrast research) will be given. It will be scored as an exam and count towards your final grade.

C. Classroom and Lab Behavior: Appropriate behavior is expected for all communications, including any notes, email messages, or telephone conversations.
   1. Turn phones off or to silent/vibrate during class.
   2. Use of cell phones or electronic devices is NOT permitted during exams.
   3. No food, gum, or drinks in lab. If you eat during lecture, please eat foods that are not noisy and clean up behind yourself.
   4. You will receive a grade of 0 (ZERO) for cheating, plagiarism, or using cell phones/electronic devices during exams.
   5. Late assignments must be turned in by 4:30 p.m. the next calendar day after they were due – not the next class period. Hand deliver/email the assignment directly to the instructor or turn it in to the front desk personnel at the PTC South Library to be filed in the instructor’s class assignment folder. Assignments turned in elsewhere or submitted after the deadline will not be accepted.
D. Grading Policy: Instructors have 1 week to provide feedback and post grades for assignments unless otherwise noted by a departmental policy approved by the Dean of the school. Per Dean approval, instructors have 2 weeks to provide feedback and post grades for research papers and other hand graded work.

In an online class, eligibility for Financial Aid is based on student participation. Logging into the course does not constitute participation. For purposes of roster certification, students must complete a gradable attendance artifact.

A. Exams: Lecture exams, including the final, count for 50-55% of your final grade. The exams may be in any format (multiple choice, short answer, essay, etc).

B. Lab: Lab reports/exams will count as 25% of your final grade.

C. Attendance: Attendance will be documented and count as 10% of your grade. Please refer back to the attendance policy regarding missing 25% of lab/lecture.

D. Make-up Exams: Any exams and labs missed during the course will not be made up.

E. Point Distribution:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Lecture Exams &amp; Final</td>
<td>500</td>
</tr>
<tr>
<td>Lab Reports/Exams</td>
<td>250</td>
</tr>
<tr>
<td>Literary Paper</td>
<td>100</td>
</tr>
<tr>
<td>Attendance</td>
<td>100</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>950</strong></td>
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F. Grading Scale.

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

Academic Integrity

It is expected that all students who attend UA-PTC conduct themselves in a manner appropriate for the college experience. Academic integrity is a vital component of collegiate behavior. The UA-PTC catalog states, “The gaining of knowledge and the practice of honesty go hand-in-hand.”

The catalog also states, “The responsibility and authority of initiating discipline arising from violations of the rules against dishonesty during the process of the course are vested in the instructor of that course.” The complete Academic Integrity Policy is in the UA-PTC code of conduct. Plagiarized work will receive a failing grade of “zero”, no resubmission or make-up work accepted.

Accommodation Policy

Services for Students with Disabilities: UA-PTC is committed to fulfilling all federal requirements as stated in the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the American with Disabilities Amendments Act (ADAAA) of 2008. Accommodations are available to students who have documented disabilities. Students who request accommodations must register with the Disability Services Office (Main Campus: 501-812-2738 or South Campus: 501-812-2862) and must provide current and relevant documentation.
Students requesting accommodations should inform the instructor at the beginning of the course or as soon as accommodations are approved. It is the student's responsibility to provide their Accommodation Letter to the instructor. **Accommodations are not retroactive and will only be provided once your instructor receives the Accommodation Letter.**

**Student Code of Conduct**
All students are expected to abide by the UA-PTC Student Code of Conduct. For the full Student Code of Conduct, access the most current version of the UA-PTC Academic Catalog.
[https://www.uaptc.edu/catalog](https://www.uaptc.edu/catalog)

**Sexual Misconduct**
No person at Pulaski Technical College will, on the basis of gender, be excluded from participation in, be denied benefits of, or be subjected to sex discrimination, sexual harassment or sexual misconduct under any education program or activity. All college administrative policies and procedures regarding sex discrimination, sexual harassment, and sexual misconduct are in compliance with Title IX. Students who feel they are victims of sexual misconduct should contact the UA-PTC Title IX Deputy Coordinator for Students:

Michelle Anderson, Director of Student Life and Leadership
Campus Center Building Room 216
501-812-2756
[manderson@uaptc.edu](mailto:manderson@uaptc.edu)

Additional information, including the PTC sexual assault policy, procedures, and resources may be found online at [https://www.uaptc.edu/sexual_misconduct_policy/policy](https://www.uaptc.edu/sexual_misconduct_policy/policy).

**Course Evaluations**
Students may be asked to evaluate their instructor and course near the end of the semester. These student evaluations are very important to the improvement in the quality of instruction and course materials. All results are anonymous and shared with the faculty only after the semester is over and grades have been posted.

**Information Literacy**
UA-PTC is committed to the Information Literacy Competency Standards for Higher Education as established by the Association of College and Research Libraries and endorsed by the National Forum on Information Literacy. Therefore, all courses will incorporate an information literacy component so that, by graduation, all students will be able to recognize the need for information, then locate, evaluate, synthesize, and communicate information in an ethical manner. Information literacy encompasses critical thinking, research, media, technology, health, business, and visual literacy skills to produce lifelong learners who can make informed decisions in the workplace and in their personal lives.
**Course Schedule:** This schedule serves as a guide and may be amended by the instructor as necessary. 
*Please note: There are no make-up lecture exams or lab exercises! Lab reports will be graded for all labs marked with **.*

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE</th>
<th>LAB EXCERISE</th>
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<tbody>
<tr>
<td>TH 1/10</td>
<td>Introduction, Overview of Syllabus</td>
<td>Lab Rules &amp; Safety Contract (Pg. 1)</td>
</tr>
<tr>
<td>TU 1/15</td>
<td>CH 1, 10: History of Micro, Nomenclature</td>
<td>Microscopy (Pg. 9)</td>
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<tr>
<td>TH 1/17</td>
<td>CH 2: Chemistry of Microbes</td>
<td><strong>Microbes in Environment</strong> (Pg 23)</td>
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<tr>
<td>TU 1/22</td>
<td>CH 4: Prokaryotes and Eukaryotes</td>
<td>Microbes in Environment, cont.</td>
</tr>
<tr>
<td>TH 1/24</td>
<td>CH 4, cont.</td>
<td>Lab Reports Due</td>
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<tr>
<td>TU 1/29</td>
<td>Q &amp; A Session for Exam 1</td>
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<tr>
<td>TH 1/31</td>
<td>STUDY PERIOD</td>
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<tr>
<td>TU 2/5</td>
<td>LECTURE EXAM 1 (Ch. 1, 4)</td>
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<tr>
<td>TH 2/7</td>
<td>CH 8: Microbial Genetics</td>
<td><strong>Smears, Simple Staining</strong> (Pg. 61)</td>
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<tr>
<td>TU 2/12</td>
<td>CH 8, cont.</td>
<td>Negative Staining (Pg. 55)</td>
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<tr>
<td>TH 2/14</td>
<td>CH 8-9: Gene Transfer &amp; DNA Technology</td>
<td>Handout: Nosocomial/Healthcare Associated Infections (Chapters 7, 14)</td>
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<tr>
<td>TU 2/19</td>
<td></td>
<td>Plant Viruses (Pg. 307) (Ch 13 in text)</td>
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<tr>
<td>TH 2/21</td>
<td>STUDY PERIOD</td>
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<tr>
<td>TU 2/26</td>
<td>LECTURE EXAM 2 (Ch. 8, 9)</td>
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<tr>
<td>TH 2/28</td>
<td>CH 14: Host Microbe Relationships, HAI's</td>
<td>Gram Staining (Pg. 69)</td>
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<tr>
<td>TU 3/5</td>
<td>CH 16, 17*: Immunity</td>
<td>Microscopy Quiz</td>
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<tr>
<td>TH 3/7</td>
<td><strong>GRAM STAIN ASSESSMENT</strong></td>
<td>Gram Staining, repeat</td>
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<tr>
<td>TH 3/14</td>
<td>STUDY PERIOD</td>
<td></td>
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<tr>
<td>TU 3/26</td>
<td>LECTURE EXAM (Ch. 14, 16)</td>
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<tr>
<td>TH 3/28</td>
<td>Research Day: Nosocomial/Healthcare Associated Infections</td>
<td>Presentations: Nosocomial Infections (Ch. 7, 14)</td>
</tr>
<tr>
<td>TU 4/2</td>
<td>21: Skin &amp; Eye Diseases</td>
<td><strong>BRING SOAP FOR LAB.</strong></td>
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<td><strong>Hand Scrubbing</strong> (Pg. 179)</td>
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<tr>
<td>TH 4/4</td>
<td>24: Respiratory Diseases</td>
<td>Bonus Points: Immunology (Ch 18)</td>
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<tr>
<td>TU 4/9</td>
<td>26: Urogenital Diseases</td>
<td>Hand Scrubbing Results</td>
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<td>TH 4/11</td>
<td>STUDY PERIOD</td>
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<tr>
<td>TU 4/16</td>
<td>LECTURE EXAM 4 (Ch. 21, 24, 26)</td>
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<tr>
<td>TH 4/18</td>
<td>CH 22: Nervous System Diseases</td>
<td>n/a</td>
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<tr>
<td>TU 4/23</td>
<td>CH 23: Cardio/Lymphatic/Systemic Diseases</td>
<td>n/a</td>
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<tr>
<td>TH 4/25</td>
<td>CH 23, continued (if necessary)</td>
<td>n/a</td>
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<tr>
<td>TU 4/30</td>
<td>Final Exam Review Session</td>
<td>n/a</td>
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<tr>
<td>TH 5/2</td>
<td>STUDY PERIOD</td>
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<tr>
<td>TU 5/7</td>
<td>FINAL EXAM @ 4:00 P.M.</td>
<td>Please take note of the time!</td>
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</tbody>
</table>

1/15: Last Day to add/drop/swap/audit  4/17: Last day to drop/WX  5/16: Grades available online
Course Agreement Form

Read, complete, and return to instructor:

SYLLABUS: I have read the course syllabus for Tammy Richardson’s Microbiology class at Pulaski Technical College, and I understand its content. I also understand the rules for the class and lab. I will follow and abide by these rules, including those relating to attendance, assignments, grading criteria, plagiarism, lab safety, and behavior.

MICROBIOLOGY LAB SAFETY CONTRACT

1. Do not eat, drink, or bring food/drinks into the lab.
2. Do not apply cosmetics (including lip chap or gloss) in the lab.
3. Wear closed-toe shoes.
4. Tie back long hair.
5. Disinfect your lab benches BEFORE you place anything on them. Disinfect again at the end of class.
6. Wash your hands before and after lab. Also wash hands if they become contaminated with microbes.
7. Cover spilled microbial cultures with paper towels. Saturate the paper towels with disinfectant and leave them for 20 minutes. Clean the area and dispose of the paper towels properly.
8. Use a broom and dustpan to dispose of broken glassware in the proper container.
9. Dispose of paper towels, cultures, etc. in the BIOHAZARD containers, not the regular trash can.
10. Work with your own bodily fluids/wastes in exercises that require them.
11. Do not perform unauthorized experiments or use equipment without instruction.
12. Do not engage in horseplay in the lab.

DATE: ____________________________

PRINTED NAME: ________________________________________

SIGNATURE: ______________________________________________

UA PTC EMAIL: ____________________________________________