Instructor Information

Instructor: Mrs. Jomeka Edwards, M.S.
Office: TR Room 1148 (end of Hallway E), Baptist Health College Little Rock (BHCLR)
Mailbox: as above
Hours: 5:00 – 6:15 PM
Phone: 501-680-7512
Email: jedwards@uaptc.edu

*All emails and telephone calls will receive a response within two business days.

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

*If your emails and telephone calls do not receive a response within two business days, the appropriate chain of command is above.

Course Information

This course meets two times per week,

**Tuesday:** 5:00 PM – 6:15 PM Lab, Room 1401, BHCLR
**Thursday:** 5:00 PM – 6:15 PM Lab, Room 1401, BHCLR

Catalog Description

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. See prerequisite details below. 3 lecture hours, 3 lab hours. (4 credit hours/special course fee)

Prerequisite: (must meet one of the following requirements)
• BIOL 1401 or BIOL 1402 with a grade of “C” or better
• Completion of high school AP/IB Biology with a grade of “B” or better, completion/testing out of all zero (0) level courses, and permission of the department chair
Course Materials

1. **Textbook**  

(easiest to use link via this syllabus post in Blackboard)

2. **Lab manual**  

(easiest to use link via this syllabus post in Blackboard)

*Used copies:* The UAPTC has a limited supply of used copies. Also check Amazon, Chegg, etc. However, make sure it is the correct edition. For used lab manuals, check that all pages are included, such as the datasheets at the end of labs 1, 2, 7, 12, etc.

3. **Student UAPTC Email**  
Make a habit of checking UAPTC email daily. This is the only way UAPTC instructors, Financial Aid, and other staff can contact you.

4. **Phone Apps**  
These apps will make the semester easier for you. Available for all operating systems.

   **Blackboard App** (has pencil in the icon) – access materials, videos, flashcards, announcements and discussions from your phone. You will receive notifications for announcements, which is quite handy.

   **CamScanner** (or similar scanner app – there are many) - Your phone camera is used as a scanner. Photo is automatically turned into a pdf file. Great way to email in work if you cannot make it to class

   **Mail,** or equivalent  
Connect your UAPTC email to your phone email app, using Exchange. For help with iOS Mail app: https://support.office.com/en-us/article/set-up-email-using-the-ios-mail-app-7e5b180f-bc8f-45cc-8da1-5cefc1e633d1
UAPTC 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.

UAPTC 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

ACTS (Arkansas Course Transfer System Standard Information)

General Description:
Introductory course in microbiology. Includes microbiological concepts including the study of bacteria, viruses, fungi, and protozoa as they affect the human body. Designed for majors in health professions programs. Lab required.

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

- History of microbiology
- Biological and chemical concepts, including metabolism, 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
- Principles of epidemiology as they apply to the effect of microorganisms on the human population
- 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 the following lab activities:

- Use of microscope
- Preparation of stains
- General laboratory techniques, including but not limited to aseptic technique, streak plate, and identification methods

**UAPTC Microbiology Course Learning Outcomes**

By the end of the course, the students will be able to:

1. Describe the diversity of microorganisms, bacterial cell structure and function, microbial growth and metabolism, and the ways to control their growth by physical and chemical means.

2. Explain the basic genetic systems of bacteria, bacteriophage, and plasmids and the role 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.

**Chapters that will be covered: chapters 1 to 18 and 20.**
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 below.

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. 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 (F) for the course if you miss more than 25% of lab sessions regardless of your grade. You will be given a failing grade (F) for the course if you miss more than 25% of lecture sessions regardless of your grade.

Course Attendance Policy

Showing up consistently is an important part of professionalism. The first indication a student will not pass a course is missing lectures and labs. Therefore, I have made participation and attendance a portion of the course grade. Note below there are also no make-up labs or make-up exams. This course is one of the first steps in your career, so be organized and have a plan, and a back-up plan, just as though it were a job.

Course Policies

The UA-PTC Catalog rules and regulations will be enforced in this course at all times. Please consult the following website for more information: https://www.uaptc.edu/catalog

Professional behavior is required. Punctual attendance and intelligent participation are expected. Particulars as determined by the instructor are detailed in the paragraph below.

Appropriate behavior is expected for all communications, including any notes, email messages, or telephone conversations. Some guidelines for communication are included in this syllabus to help you.
Please leave the room if you must deal with a **text or phone call**. This is standard professional practice. Safety is of the essence in lab. You must follow safety and professionalism standards as outlined in lab safety agreement.

**Grading Policy**

Letter grades will be based on the following scale:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 to 100%</td>
<td>A</td>
</tr>
<tr>
<td>80 to 89%</td>
<td>B</td>
</tr>
<tr>
<td>70 to 79%</td>
<td>C</td>
</tr>
<tr>
<td>60 to 69%</td>
<td>D</td>
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<tr>
<td>0 to 59%</td>
<td>F</td>
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23% Lecture

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Participation &amp; Attendance (1 per lecture or lab)</td>
<td>60</td>
</tr>
<tr>
<td>Chapter Exam Practice Questions (1 per question)</td>
<td>130</td>
</tr>
<tr>
<td>Infectious Disease Research Paper</td>
<td>40</td>
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</tbody>
</table>

52% Exams

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Exams (100 per exam)</td>
<td>400</td>
</tr>
<tr>
<td>1 Cumulative Final</td>
<td>120</td>
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</tbody>
</table>

25% Laboratory Activities

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 lab exams (16 + 15 + 15 each)</td>
<td>46</td>
</tr>
<tr>
<td>12 lab datasheets (12 per lab)</td>
<td>144</td>
</tr>
<tr>
<td>12 prelab assignments (5 per lab)</td>
<td>60</td>
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Total 1000

*Instructors have one week to provide feedback and post grades for all assignments unless otherwise noted by a departmental policy that has been approved by the Dean of the School. Per Dean approval, instructors of the Physical and Natural Sciences department will have two 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.

**Missing Work** Late Assignments, Missed Labs and Missed Exams

Students must make every effort to keep up with the course and come to class. I understand that sometimes life does not allow this. If you cannot make it to class, you may submit
homework and prelabs as an attachment to an email. They must be in pdf form (Use a scanner or see CamScanner above).

Because we have so much material to cover, you should make every effort to keep up with due dates even if you cannot come to class. There is very little time to make up work. Each day homework or a prelab is overdue results in a subtraction of 20% of the possible points. This means if you wait to turn in homework over the weekend, it will receive zero points. Work ahead and get it in the day it is due.

There are no make-up labs. However, if you miss a lab, be sure you still turn in the prelab and complete any homework due. At the end of the semester the lowest lab grade will be dropped. This does not apply to prelabs and homework.

There are no make-up exams. You must complete exams during the time period given, whether online or the in-person final. At the end of the semester, the lowest or missed exam percentage grade can be replaced with the final percentage grade.

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.

Plagiarism

In science courses you often must refer to findings and concepts from other sources. To avoid plagiarism, which is passing on others work as your own, it is simply a process of citing who did the work. Proper citations are the key.

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. [http://uaptc.azurewebsites.net/docs/default-source/course-catalog/2017-18-academic-catalog.pdf?sfvrsn=a08a3038_2](http://uaptc.azurewebsites.net/docs/default-source/course-catalog/2017-18-academic-catalog.pdf?sfvrsn=a08a3038_2)

Sexual Misconduct

No person at UA-PTC 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

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.
## Tentative Course Schedule

<table>
<thead>
<tr>
<th>Dates</th>
<th>Chapters</th>
<th>Assignments</th>
<th>Points</th>
</tr>
</thead>
</table>
| Jan 9-13  | 1        | Lab 1 – Microbes in the Environment  
            Prelab 1  
            Reading & Study Questions Chp 1  
            Practice Exam Questions Chp 1  
            Prelab 2 | 12     |
|           |          |                                                                              | 5      |
|           |          |                                                                              | 4      |
|           |          |                                                                              | 5      |
| Jan 14-20 | 2 & 3    | Start Lab 2 – Use & Care of the Microscope  
            Reading & Study Questions Chp 2 & 3  
            Practice Exam Questions Chp 2 & 3 | 12     |
|           |          |                                                                              | 18     |
| Jan 21-27 | 4        | MLK Day (No Monday Classes)  
            Lab 2 – continued  
            Reading & Study Questions Chp 4  
            Prelab 3 | 5      |
| Jan 28-Feb 3 | 4 & 5 | Lab 3 – Streak plate, Smear & Simple Stains  
            Practice Exam Questions Chp 4  
            Prelab 4 | 12     |
|           |          |                                                                              | 11     |
|           |          |                                                                              | 5      |
| Feb 4-10  | 5        | Lab 4 – Gram Stain  
            Reading & Study Questions Chp 5  
            Practice Exam Questions Chp 5  
            Prelab 5 | 12     |
|           |          |                                                                              | 11     |
|           |          |                                                                              | 5      |
| Feb 11-17 | 6        | Exam I (Chp 1-5)  
            Lab 5 – Selective & Differential Media  
            Reading & Study Questions Chp 6  
            Practice Exam Questions Chp 6 | 100    |
|           |          |                                                                              | 12     |
|           |          |                                                                              | 5      |
| Feb 18-24 | 8        | Lab Exam 1 (Microscope & Stains)  
            Reading & Study Questions Chp 8  
            Practice Exam Questions Chp 8  
            Prelab 6 | 16     |
|           |          |                                                                              | 10     |
|           |          |                                                                              | 5      |
| Feb 25-Mar 3 | 9 to 12 | Lab 6 – Carbohydrate Metabolism & Fermentation  
            Reading & Study Questions Chp 9 to 12  
            Practice Exam Questions Chp 9 to 12  
            Prelab 7 | 12     |
|           |          |                                                                              | 12     |
|           |          |                                                                              | 5      |
| Mar 4-10  | 13       | Lab 7 - Protein Catabolism  
            Reading & Study Questions Chp 13  
            Practice Exam Questions Chp 13  
            Prelab 8 | 12     |
|           |          |                                                                              | 6      |
|           |          |                                                                              | 5      |
| Mar 11-17 | 7        | Exam II (Chp 6 and 8 - 13)  
            Lab 8 – Respiration & Multi-Test Medium  
            Reading & Study Questions Chp 7  
            Practice Exam Questions Chp 7 | 100    |
<p>|           |          |                                                                              | 12     |
|           |          |                                                                              | 6      |</p>
<table>
<thead>
<tr>
<th>Mar 18-24</th>
<th>Spring Break</th>
</tr>
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</table>
| Mar 25-31 | 20 Lab Exam II (Media)  
Reading & Study Questions Chp 20  
Practice Exam Questions Chp 20  
Prelab 9  |
| 15        |
|           | 8            |
|           | 5            |
| Apr 1-7   | 14 & 15 Lab 9 – Antiseptic & Disinfectant  
Reading & Study Questions Chp 14 & 15  
Practice Exam Questions Chp 14  
Prelab 10  |
| 12        |
|           | 8            |
|           | 5            |
| Apr 8-14  | 15 Exam III (Chp 7, 20, 14, 15)  
Lab 10 – Antibiotics  
Practice Exam Questions Chp 15  
Prelab 11  |
| 100       |
|           | 12           |
|           | 8            |
|           | 5            |
| Apr 15-21 | 16 Lab 11 – Hand hygiene  
Reading & Study Questions Chp 16  
Practice Exam Questions Chp 16  
Prelab 12  |
| 12        |
|           | 10           |
|           | 5            |
| Apr 22-28 | 17 Infectious Disease Paper due  
Lab 12 – ELISA and AIDS  
Reading & Study Questions Chp 17  
Practice Exam Questions Chp 17  |
| 40        |
|           | 12           |
|           | 8            |
| Apr 29-May 5 | 18 & 19 Lab Exam III (Control & Immunology)  
Exam IV (Chp 16-19)  
Reading & Study Questions Chp 18 & 19  
Practice Exam Questions Chp 18 & 19  |
| 100       |
|           | 6            |

**Final Exam Schedule: May 7th**

Disclaimer: This schedule is a guide for the semester. The instructor reserves the right to amend the schedule as necessary.
Course Agreement Form

Read, complete, and return to instructor:

I have read the course syllabus for Mrs. Jomeka Edwards’ Microbiology-BIOL 2401 at Pulaski Technical College, and I understand its content. I also understand the rules for the class, and I will follow and abide by these rules, including those relating to attendance, assignments, grading criteria, plagiarism, and behavior.

Semester

Date

Print name

Signature

UA-PTC Email address

Telephone