Semester- Fall 2019



TRINITY VALLEY COMMUNITY COLLEGE COURSE SYLLABUS

This is a HYBRID COURSE. As such, approximately hour(s) of practice/research/preparation time will be required to be spent outside of class each week.

This course DOES NOT use Cengage unlimited

Course Rubric & Title: Title: Microbiology

Instructor Name: Vernon L. Price, Ph.D.

Office Hours:Posted by office door

Campus:Athens

Office Location: A226

Office Phone & Alternate Phone #s: 903-675-6250

TVCC E-mail Address:vprice@tvcc.edu

Electronic communication: TVCC students are REQUIRED to use either their TVCC Canvas account or their TVCC email account for all electronic communication. In order to ensure the identity of the student communicating via electronic methods, TVCC faculty will not reply to student communication that is sent through an email account other than their TVCC issued email account or Canvas account.

Course Description: A survey of microbiological methods and tools and microorganisms and their morphology, physiology, genetics, and classification with emphasis on biological principles and relationships to man with emphasis on medical significance.

Course Co- or Pre-Requisites: One College Biology

Textbook(s) & ISBN: Please visit the TVCC bookstore online

Required/Recommended Reading(s): None required: <u>TVCC bookstore online</u>

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Required Materials: None required: TVCC bookstore online

Learning Outcomes: Upon completion of this course, the student should demonstrate a mastery of the following learning outcomes: Essential Unit Objectives: The student should be able to:

Lecture Learning Outcomes

1. Describe distinctive characteristics and diverse growth requirements of prokaryotic organisms compared to eukaryotic organisms.

2. Provide examples of the impact of microorganisms on agriculture, environment, ecosystem, energy, and human health, including biofilms.

3. Distinguish between mechanisms of physical and chemical agents to control microbial populations.

4. Explain the unique characteristics of bacterial metabolism and bacterial genetics.

5. Describe evidence for the evolution of cells, organelles, and major metabolic pathways from early prokaryotes and how phylogenetic trees reflect evolutionary relationships.

6. Compare characteristics and replication of acellular infectious agents (viruses and prions) with characteristics and reproduction of cellular infectious agents (prokaryotes and eukaryotes).

7. Describe functions of host defenses and the immune system in combating infectious diseases and explain how immunizations protect against specific diseases.

8. Explain transmission and virulence mechanisms of cellular and acellular infectious agents.

Lab Learning Outcomes

1. Use and comply with laboratory safety rules, procedures, and universal precautions.

2. Demonstrate proficient use of a compound light microscope.

3. Describe and prepare widely used stains and wet mounts, and discuss their significance in identification of microorganisms.

4. Perform basic microbiology procedures using aseptic techniques for transfer, isolation and observation of commonly encountered, clinically significant bacteria.

5. Use different types of bacterial culture media to grow, isolate, and identify microorganisms.

6. Perform basic bacterial identification procedures using biochemical tests.

7. Estimate the number of microorganisms in a sample using methods such as direct counts, viable plate counts, or spectrophotometric measurements.

8. Demonstrate basic identification protocols based on microscopic morphology of some common fungi and parasites.

Course Requirements: There will be four major quizzes and a comprehensive final exam.

Expected Time Requirement for this Course: Approximately five to six hours per week of time spent reading, reviewing, and completing assignments is recommended to complete this course.

Non-Attendance and Financial Aid: If you are receiving financial aid, federal regulations require you to have begun attending the courses for which you are enrolled on or before the census date (e.g., 12th day of each fall and spring semester and 6th day of class each abbreviated semester). Attendance in an online course is verified by substantial participation in the course

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on or before the census date. TVCC defines substantial participation in online courses as logging in to the online course <u>AND</u> completing/participating in at least one requirement of the course. **NOTE:** Logging in to your online course does not warrant "attending". For this course, you will be required to complete insert required assignment here before the census (12th class for fall/spring or 6th class day for abbreviated semesters) date in order to be marked as "attending" for purposes of financial aid. Students documented as "not attending" a course upon the census date are assumed (for financial aid purposes) to have NOT begun attendance for that course, negatively affecting their financial aid disbursements.

Attendance in online course at TVCC is verified by students logging in to the course and substantially participating in the course on or before the census date. Students documented as "not attending" an online course upon the census date are assumed (for financial aid purposes) to have NOT begun attendance for that course, and this may negatively affect financial aid disbursements.

Outline of Course Schedule: See Learning Outcomes.

Classroom Policies: You will be dropped if you accumulate three weeks absences in lecture or lab. You will be dropped for continuing classroom disruption. You will be dropped with a "F" for cheating.

Cheating/Plagiarism: Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion. "Cheating on a test" shall include

- Copying from another student's test paper
- Using test materials not authorized by the person administering the test
- Collaborating with or seeking aid from another student during a test without permission from the test
 administrator NOTE: an instructor using non-proctored exams is NOT providing permission to
 collaborate with or seek aid from another student.
- Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of an unadministered test
- The unauthorized transporting or removal, in whole or in part, of the contents of the un-administered test
- Substituting for another student, or permitting another student to substitute for oneself, to take a test, and
- Bringing another person to obtain an un-administered test or information about an un-administered test.
- Accessing web content or online resources to provide support in answering questions on exams, proctored or not

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"Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work. "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements.

The punishment for cheating or collusion in this class is an "F" in the class.

Drop Policy: : You will be dropped if you accumulate three weeks absences in lecture or lab.

Campus Carry: The College District prohibits the use, possession, or display of a firearm on College District property or at a College District-sponsored or -related activity in violation of law and College District regulations. This policy does not apply to commissioned peace officers in accordance with law. All persons, including license holders, are prohibited from openly carrying a handgun on all College District campuses and premises. License holders may carry a concealed handgun on or about their person while on College District campuses and premises. License holders are responsible for complying with applicable federal and state law and this policy and associated regulations.

Criminal History: TVCC awards some certificates and degrees in which a criminal history **MAY** disqualify candidates from becoming licensed upon degree/certificate completion. Students **with** a criminal background enrolling in courses leading to a degree/certificate in criminal justice, cosmetology, nail technician, Heating/Ventilation/Air Conditioning (HVAC), Emergency Medical Technology (EMT), Nurse Aide, Vocational Nursing (VN), Associate Degree Nursing (ADN), Surgical Technology, Patient Care Technology, or Pharmacy Technician program are STRONGLY ENCOURAGED to discuss the licensing regulations with the TVCC program director listed in the current catalog and learn about the current guidelines related to criminal history as well as the right of individuals to request a criminal history evaluation letter.

Research Resources: The student is encouraged to use the TVCC Libraries as research resources for this course. Students can search the TVCC Library Resource Center holdings through the online catalog. Electronic library resources provide access to full-text and abstract articles as well as links to a variety of remote research tools. The physical library contains a specialized collection of research materials specifically chosen to support the degrees and courses offered at TVCC. Students with research questions or questions about library services are encouraged to email their question to Irc@tvcc.edu.

Logging on to E-Courses: To access your courses that incorporate Canvas (which are available after 8:00 a.m. on the first day of the semester), visit <u>https://ecourses.tvcc.edu</u>. At the Canvas

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4

login page, the TVCC **username** is your Cardinal ID (ex: last name, first initial, 3 numbers that were assigned to you). You can find your Cardinal ID on your printed schedule. If you do not know your Cardinal ID, you will need to visit <u>https://mail.tvcc.edu</u> and choose the "Activate my Cardinal ID" icon. At the Cardinal ID activation screen choose "Get My Cardinal ID" (on the right in red). Select the "Obtain Cardinal ID and TVIN" screen, enter your social security number, month of birth, year of birth and choose "search". Your Cardinal ID will be listed in the second box under your name. Your **password** is created when you activate your cardinal ID. If you have forgotten your password, please visit <u>https://mail.tvcc.edu</u> and click on "Forgot My Password".

Technology Resources/Access: Each student, employee, or guest with an information technology (IT) account shall be responsible for all use of the account. All accounts shall be for use by a single individual – the person for whom the account was approved or assigned. This includes e-Course accounts as well as TVCC issued email accounts. Sharing or loaning accounts is strictly prohibited and violates TVCC Board Policy CT (LOCAL).

Additional Information: Cell phone use in class shall be considered "Classroom disruption."

Student's Responsibility: This syllabus contains information, policies and procedures for a specific course. By enrolling, the student agrees to read, understand, and abide by the rules, policies, regulations, and ethical standards of Trinity Valley Community College as contained in the current catalog and schedule of classes.

Student Evaluation of Courses/Faculty: Evaluation is an important component in promoting continuous improvement, enhancing student learning, and achieving excellence in the educational process. Therefore, TVCC administers student course evaluations every semester. Students are encouraged to complete the course evaluations for all of their courses. Notification of evaluation availability and details on how to access and complete the course evaluation will be delivered to all students through the TVCC email accounts.

When completing the evaluation, students will rate the course by responding to the following prompts:

- The instructor relates the importance of the subject matter to real life.
- The instructor is very knowledgeable of the subject matter.
- The instructor encourages questions and discussions from students.
- The instructor makes class requirements clear.
- The instructor gives class assignments (tests, projects, presentations, etc.) that measure what was covered.

- The instructor's teaching methods are effective in helping me learn.
- The instructor expects students to take responsibility for their learning.
- The instructor establishes a climate of respect.
- The instructor is well organized and prepared for each class.
- The instructor is available to me on matters pertaining to the class.
- The instructor is reliable in meeting class (leave blank for online courses).
- The instructor normally starts class on time (leave blank for online courses).
- The instructor has challenged me to think.

Affirmative Action: TVCC is an affirmative action/equal opportunity institution which provides educational and employment opportunities on the basis of merit and without discrimination or harassment in full compliance with the Civil Rights Act of 1964, as amended; the Rehabilitation Act of 1973 (Section 503,504); Americans with Disabilities Act, as amended, Title IX of the Educational Amendments of 1972; the Vietnam Era Veterans Assistance Act of 1974; Article 522lk V.A.C.S.; and Executive Orders 11246 and 11758.

Title IX of the Education Amendments: TVCC prohibits discrimination, including sexual harassment and retaliation, against any student on the basis of race, color, religion, gender, national origin, disability, or any other basis prohibited by law. Any student who believes that he or she has experienced prohibited conduct or believes that another student has experienced prohibited conduct or believes that another student has experienced prohibited conduct or believes that another student has experienced prohibited conduct or believes that another student has experienced prohibited conduct should immediately report the alleged acts to an instructor, counselor, administrator, or the Title IX Coordinator. TVCC has designated the Director of Human Resources/Title IX Coordinator as the individual who is responsible for coordinating its efforts to comply with Title IX of the Education Amendments of 1972, as amended. Contact information is: *Director of Human Resource/Title IX Coordinator; Office Phone: 903-675-6215*

American with Disabilities Act (ADA): Trinity Valley Community College provides equal opportunities for academically qualified students with disabilities and ensures access to a wide variety of resources and programs. The passage of Section 504, Federal Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 requires that the college make certain special arrangements for students with disabilities such as moving classes to accessible locations when necessary, allowing the use of tape recorders, sign language interpreters, or other educational auxiliary aids, making special test arrangements, and other accommodations. The college will make reasonable accommodations for qualified students with a diagnosed physical and/or learning disability who have been admitted to the college and request accommodations.

Students with disabilities who wish to request accommodations should notify the Disability Services Office on their campus. In accordance with federal law, a student requesting accommodations must provide documentation of his/her disability to the Disability Services counselor. For more information, please visit the Disability Service Office on your campus or contact Melinda Berry at 903-675-6224 and email <u>mlberry@tvcc.edu</u>.