

Course Syllabus

COURSE: SCIT1313_200: Workplace Microbiology (3-hour credit)
SEMESTER: Fall 2021 (August – December 16 weeks)
CLASS TIMES: Online (Lecture: 3, LAB: 1)
INSTRUCTOR: Kristie Cole, M.Ed, BAS, CST
OFFICE: RC 529
OFFICE HOURS: By appointment only
OFFICE PHONE: 806-716-4643
E-MAIL: kcole@southplainscollege.edu
PROGRAM FACEBOOK: <https://www.facebook.com/SPCSurgicalTechnology>

Blackboard is an e-Education platform designed to enable educational innovations everywhere by connecting people and technology. This educational tool will be used in this course throughout the semester

GENERAL COURSE INFORMATION

It is the responsibility of each student to be familiar with the content and requirements listed in the course syllabus.

COURSE DESCRIPTION

The Workplace Microbiology course is the study of identification and growth of microorganisms as pathogenic or nonpathogenic agents, including epidemiology. Includes the detection of microbes and control of infectious agents in the workplace, emphasizing sanitation and asepsis.

STUDENT LEARNING OUTCOMES

Upon satisfactory completion of a course of study in workplace microbiology, the student shall be able to:

- Identify basic microbial morphology and describe basic microbial physiology
- Interpret host-parasite relationships and interactions, and the requirements of successful parasitism;
- Describe and apply knowledge of personal and environmental disinfection and decontamination procedures by proper use of chemical disinfection and sterilization procedures;
- Describe the fundamentals of the infectious processes and specific and non-specific defense mechanisms against disease;
- Understand the methods of transmission of infectious diseases and recognize the control procedure of these diseases with special emphasis on protection to the embalmer, the funeral director and the public;
- Differentiate between the indigenous microorganisms and pathogens and/or opportunists causing disease commonly associated with the human host

COURSE OBJECTIVES / COURSE OUTCOMES

- Compare and distinguish the basic groups of microbes, including prokaryotic microbes (Archaea, Bacteria), and Viruses, and eukaryotic microbes.
- Understand the processes needed for one bacterium to become two, and understand the mechanisms involved.
- Compare and contrast major pathways of catabolism, specify the relative energy yield from each pathway, list the key products of each pathway, and describe biochemical pathways used for microbial taxonomy.

- Compare and contrast major pathways of biosynthesis and list the key products of each pathway.
- Draw a typical microbial growth curve, and predict the effect of different environmental conditions on the curve.
- Compare and contrast eukaryotic and prokaryotic genomes, and gene expression in each group.
- Compare and contrast the acquisition of novel genetic information in microbes via mutations and genetic exchange, specifically conjugation, transformation and transduction,
- Specify the role of microbes in global C, N, S, and P cycles, and list examples of microbes that contribute to key metabolic aspects of these cycles.
- List different types of symbiotic interactions between microbes and other organisms, including commensalism, mutualism, and parasitism, and provide examples of each.
- Summarize common features of microbial pathogens, with emphasis on bacterial and viral pathogens.
- Summarize mechanisms of animal defenses to infection, including primary defenses, innate immunity, and acquired immunity.
- Compare and contrast beneficial and harmful uses of organisms, including applications in biotechnology and bioterrorism.
- Have a solid grasp of the scope of the microbial world and its role in shaping this planet and all its inhabitants

EVALUATION METHODS

Computer-based exams, written exams, written assignments, quizzes, and other projects as assigned.

The student upon successful completion of this course will be able to read and understand medical literature and communicate with other medical professionals with at least 75% proficiency.

1. Lecture will be one mode of instruction.
2. Questions and classroom discussion(s) will be used in cooperative learning experiences. Participation is expected.
3. Power Point presentations will be used. Other types of technology will be used when appropriate. Each lecture will be posted as a PowerPoint on portal for individuals who missed class or need to review the lecture.
4. Reading assignments from the text and from external sources including the internet may be required. Summaries of pertinent articles are usually required.
5. Learning will be enhanced by "hands on" laboratory experiments selected to reinforce concepts presented in the lectures.
6. Unknowns will be given in the laboratory requiring the student to apply existing knowledge, to seek additional information if required and to make decisions on their own.
7. Laboratory experiments will be recorded and turned in for grading. This is designed to reinforce the need to record and report data carefully

ACADEMIC INTEGRITY

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

Cheating - Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat,

alteration of grade records, illegal entry or unauthorized presence in the office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of coursework. This applies to quizzes of whatever length, as well as final examinations, to daily reports and to term papers.

Plagiarism - Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.

VARIFICATION OF WORKPLACE COMPETENCIES CAPSTONE EXPERIENCE

BLACKBOARD

Blackboard is an e-Education platform designed to enable educational innovations everywhere by connecting people and technology. This educational tool will be used in this course throughout the semester.

FACEBOOK

The Surgical Technology Program has a Facebook page at <https://www.facebook.com/SPCSurgicalTechnology>. In addition to the South Plains College website, this Facebook page will be used to keep students up-to-date on program activities, weather delays, and South Plains College announcements and will help with program recruitment. “Liking” the Surgical Technology Facebook page is not mandatory, nor are personal Facebook accounts, in order to access this page.

SCANS and FOUNDATION SKILLS

Refer also to Course Objectives. Scans and Foundation Skills attached

SPECIFIC COURSE INFORMATION

TEXT AND MATERIALS



Microbiology: Practical Applications and Infection Prevention
Educator Guide with MindTap

ADDITIONAL CLASSROOM ITEMS

Students should come to class prepared with pens, pencils, and a spiral notebook for taking notes or completed quizzes or assignments in class. Students should be prepared to take notes over lecture material if they choose.

ATTENDANCE POLICY (*READ CAREFULLY)

Class Attendance

Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive as defined in the course syllabus.

When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first class meeting.

Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

(http://catalog.southplainscollege.edu/content.php?catoid=47&navoid=1229#Class_Attendance)

Due to the importance of the emergency medical information being taught, the instructor of this course defines excessive absences as missing the 3rd class day (or having equivalent tardies) in a course section. A student who meets this criteria will be administratively dropped from the course by the instructor.

- Tardies: (Definition): arriving any time after the class has started or not returning from an approved break after class has started.
- Two tardies will be considered missing one class day and counted as such.
- Work schedule is not an excuse for missing class.
- Any exceptions to this policy must be discussed on an individual basis with the course instructor and the SRGT Program Director. (i.e. – student hospitalization, immediate family member death, etc.)

ASSIGNMENT POLICY

All assignments must be completed by the assigned due date. Late and/or incomplete work will not be accepted and a grade of zero will be recorded. Assignments, quizzes, exams, and skills that are missed due to an unexcused absence may not be made up. See the instructor for more specific information.

A STUDENT IS RESPONSIBLE FOR INITIATING THEIR OWN WITHDRAWAL, if that becomes necessary. If a student is administratively withdrawn from the class, the grade appearing on the transcript will be, at my discretion, an 'X' or 'F'. Administrative withdrawal may occur if the student has excessive absences.

COMPUTER USAGE

As computer technology in the field of Health Sciences continues to become more popular, computers will be used in this course for several assignments. All students have access to computers and printers on the South Plains College campus. Students will be expected to utilize computers to access assignments and classroom resources. All registered students are supplied with a working email account from South Plains College. In order to take exams, students must have their user name and password.

ALL STUDENTS ARE EXPECTED TO KNOW THEIR SPC STUDENT USER NAME AND PASSWORD.

COMPUTER LAB USAGE

The computer lab(s) on any campus may be used by students during scheduled open hours or as assigned by an instructor. Printer paper will not be provided for students to print materials but students may seek assistance from faculty or staff to request lab paper from the college if needed. Lack of computer lab paper is not an excuse for not having homework assignments, skills lab sheets, or any other required documents. Students should come prepared for class.

EXAMS

The majority of student 'written' exams will be administered via computer to prepare them for the National Registry exam and some exams will be handwritten which will encourage memory and mastery of the material. Students should practice proper spelling and grammar when answering a written exam.

Additionally, many exam questions will be constructed in the same manner as national registry questions, allowing students to prepare for that testing format.

GRADING POLICY

The course grade will be determined by a combination of major exams, quizzes, homework, lab work and a comprehensive final exam. Exam dates will be announced. The following guidelines are provided regarding exams:

The course grade will be determined by a combination of major exams and the comprehensive final exam. The number of exams may vary depending on the progress and pace of the class. Exam dates will be announced.

The following guidelines will be followed regarding exams:

1. The student is expected to complete the exam at the scheduled time.
2. No makeup exams will be given unless it is discussed prior to exam day and accepted at instructor's discretion.
3. Late assignments will not be accepted.
4. The final exam is comprehensive.

(9)	Homework (MINDTAP)	20%
(6)	Exams	30%
(1)	Comprehensive Didactic Final Exam	20%
(4)	Lab Assignments/Discussions	20%
(1)	Lab Final Project	10%

Grading Scale	90-100 = A
	80-89 = B
	75-79 = C
	Below 75 is failing

A final grade average of C (75) must be maintained in all Surgical Technology classes. You must pass all courses to proceed to the next semester.

COMMUNICATION POLICY

Electronic communication between instructor and students in this course will utilize the South Plains College “My SPC” and email systems. I will utilize text messaging and you may communicate with me this way also. The instructor will not initiate communication using private email accounts. Students are encouraged to check SPC email on a regular basis each week of class. Students will also have access to assignments, web-links, handouts, and other vital material which will be delivered via the classroom website. Any student having difficulty accessing the classroom website or their email should immediately contact their instructor for direction. The instructor will work with any student to ensure the student has access to a computer on campus and can obtain the needed class content that is located on the course website.

STUDENT CONDUCT

Rules and regulations relating to the students at South Plains College are made with the view of protecting the best interests of the individual, the general welfare of the entire student body and the educational objectives of the college. As in any segment of society, a college community must be guided by standards that are stringent enough to prevent disorder, yet moderate enough to provide an atmosphere conducive to intellectual and personal development.

A high standard of conduct is expected of all students. When a student enrolls at South Plains College, it is assumed that the student accepts the obligations of performance and behavior imposed by the college relevant to its lawful missions, processes and functions. Obedience to the law, respect for properly constituted authority, personal honor, integrity and common sense guide the actions of each member of the college community both in and out of the classroom.

Students are subject to federal, state and local laws, as well as South Plains College rules and regulations. A student is not entitled to greater immunities or privileges before the law than those enjoyed by other citizens. Students are subject to such reasonable disciplinary action as the administration of the college may consider appropriate, including suspension and expulsion in appropriate cases for breach of federal, state or local laws, or college rules and regulations. This principle extends to conduct off-campus which is likely to have adverse effects on the college or on the educational process which identifies the offender as an unfit associate for fellow students.

Any student who fails to perform according to expected standards may be asked to withdraw.

Rules and regulations regarding student conduct appear in the current Student Guide.

Dropping a class

Students should submit a [Student Initiated Drop Form](#) online.

Students will not be required to obtain an instructor signature to drop, however, we do encourage students to communicate with instructors or advisors prior to dropping a course when they are able. **There will be no charge for drops for the fall or spring semesters.**

Withdrawing from all classes

If a student wishes to withdraw from all courses, they should initiate that process with the Advising Office. They can schedule an appointment with an advisor by visiting <http://www.southplainscollege.edu/admission-aid/advising/spcadvisors.php> or by calling 806-716-2366.

Schedule Change (after late registration and before census date)

To make a schedule change after late registration (August 28) and before the census date (September 9), students should submit a [Schedule Change Form](#).

After late registration, adding a class requires instructor approval. If a student is requesting to be added to one of your courses and you approve, please email registrar@southplainscollege.edu with your approval. This can take the place of signature on the Schedule Change Form that we have required in the past.

For additional information regarding schedule changes, drops and withdrawals, [click here](#)

ACCOMMODATIONS

DIVERSITY STATEMENT

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

DISABILITIES STATEMENT

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland Student Health & Wellness Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

4.1.1.3 Non-Discrimination Statement

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

4.1.1.4 Title IX Pregnancy Accommodations Statement

If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

4.1.1.5 - Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list

of locations and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.php>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

FOUNDATION SKILLS

BASIC SKILLS—Reads, Writes, Performs Arithmetic and Mathematical Operations, Listens and Speaks

F-1 Reading—locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.

F-2 Writing—communicates thoughts, ideas, information and messages in writing and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.

F-3 Arithmetic—performs basic computations; uses basic numerical concepts such as whole numbers, etc.

F-4 Mathematics—approaches practical problems by choosing appropriately from a variety of mathematical techniques.

F-5 Listening—receives, attends to, interprets, and responds to verbal messages and other cues.

F-6 Speaking—organizes ideas and communicates orally.

THINKING SKILLS—Thinks Creatively, Makes Decisions, Solves Problems, Visualizes and Knows How to Learn and Reason

F-7 Creative Thinking—generates new ideas.

F-8 Decision-Making—specifies goals and constraints, generates alternatives, considers risks, evaluates and chooses best alternative.

F-9 Problem Solving—recognizes problems, devises and implements plan of action.

F-10 Seeing Things in the Mind’s Eye—organizes and processes symbols, pictures, graphs, objects, and other information.

F-11 Knowing How to Learn—uses efficient learning techniques to acquire and apply new knowledge and skills.

F-12 Reasoning—discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

PERSONAL QUALITIES—Displays Responsibility, Self-Esteem, Sociability, Self-Management, Integrity and Honesty

F-13 Responsibility—exerts a high level of effort and perseveres towards goal attainment.

F-14 Self-Esteem—believes in own self-worth and maintains a positive view of self.

F-15 Sociability—demonstrates understanding, friendliness, adaptability, empathy and politeness in group settings.

F-16 Self-Management—assesses self accurately, sets personal goals, monitors progress and exhibits self-control.

F-17 Integrity/Honesty—chooses ethical courses of action.

SCANS COMPETENCIES

C-1 **TIME** - Selects goal - relevant activities, ranks them, allocates time, prepares and follows schedules.

C-2 **MONEY** - Uses or prepares budgets, makes forecasts, keeps records and makes adjustments to meet objectives.

C-3 **MATERIALS AND FACILITIES** - Acquires, stores, allocates, and uses materials or space efficiently.

C-4 **HUMAN RESOURCES** - Assesses skills and distributes work accordingly, evaluates performances and provides feedback.

INFORMATION - Acquires and Uses Information

- C-5 Acquires and evaluates information.
- C-6 Organizes and maintains information.
- C-7 Interprets and communicates information.
- C-8 Uses computers to process information.

INTERPERSONAL–Works With Others

- C-9 Participates as a member of a team and contributes to group effort.
- C-10 Teaches others new skills.
- C-11 Serves Clients/Customers–works to satisfy customer’s expectations.
- C-12 Exercises Leadership–communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
- C-13 Negotiates-works toward agreements involving exchanges of resources; resolves divergent interests.
- C-14 Works With Diversity–works well with men and women from diverse backgrounds.

SYSTEMS–Understands Complex Interrelationships

- C-15 Understands Systems–knows how social, organizational, and technological systems work and operates effectively with them.
- C-16 Monitors and Corrects Performance–distinguishes trends, predicts impacts on system operations, diagnoses systems performance and corrects malfunctions.
- C-17 Improves or Designs Systems–suggests modifications to existing systems and develops new or alternative systems to improve performance.

TECHNOLOGY–Works with a Variety of Technologies

- C-18 Selects Technology–chooses procedures, tools, or equipment, including computers and related technologies.
- C-19 Applies Technology to Task–understands overall intent and proper procedures for setup and operation of equipment.
- C-20 Maintains and Troubleshoots Equipment–prevents, identifies, or solves problems with equipment, including computers and other technologies.

COURSE OUTLINE

Weekly Assignments	Chapters/LAB
WEEK 1 Monday: 8/30 Coursework Opens Sunday: 9/5 Coursework DUE by 11:59 pm	<i>Introduction and Signing of syllabus forms</i> <i>Lecture, PowerPoint Presentations, question/answer</i> Chapter 1
WEEK 2 Monday: 9/6 Coursework Opens Sunday: 9/12 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations, question/answer</i> Chapter 1 EXAM DUE SUNDAY @ 11:59 pm: EXAM DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 3 Monday: 9/13 Coursework Opens Sunday: 9/19 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations, question/answer</i> Chapter 2 DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 4 Monday: 9/20 Coursework Opens Sunday: 9/26 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 3 DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 5 Monday: 9/27 Coursework Opens Sunday: 10/3 Coursework DUE by 11:59 pm	<i>Chapter 2 and 3 Exam</i> DUE SUNDAY @ 11:59 pm: EXAM
WEEK 6 Monday: 10/4 Coursework Opens Sunday: 10/10 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 4 DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 7 Monday: 10/11 Coursework Opens Sunday: 10/17 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 5 DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 8 Monday: 10/18 Coursework Opens Sunday: 10/24 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 4 and 5 Exam DUE SUNDAY @ 11:59 pm: EXAM
WEEK 9 Monday: 10/24 Coursework Opens Sunday: 10/31 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 6 DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 10 Monday: 11/1 Coursework Opens	<i>Lecture, PowerPoint Presentations</i> Chapter 7

Sunday: 11/7 Coursework DUE by 11:59 pm	DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 11 Monday: 11/8 Coursework Opens Sunday: 11/14 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 6 and 7 Exam DUE SUNDAY @ 11:59 pm: EXAM
WEEK 12 Monday: 11/15 Coursework Opens Sunday: 11/21 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 8 Chapter 8 Exam DUE SUNDAY @ 11:59 pm: EXAM DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 13 Monday: 11/22 Coursework Opens Sunday: 12/5 Coursework DUE by 11:59 pm	Thanksgiving WEEK – Week 14-16 are open if you wish to work ahead.
WEEK 14 Monday: 11/22 Coursework Opens Sunday: 12/5 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Chapter 9 Chapter 9 Exam DUE SUNDAY @ 11:59 pm: EXAM DUE SUNDAY @ 11:59 pm: MINDTAP
WEEK 15 Monday: 12/6 Coursework Opens Sunday: 12/12 Coursework DUE by 11:59 pm	<i>Lecture, PowerPoint Presentations</i> Lab Final Project Due
WEEK 16 12/7-12/15	Comprehensive FINAL DUE WEDNESDAY @ 11:59 pm: EXAM



SCIT1313: Workplace Microbiology

By signing and initialing below I affirm that I have received a copy or shown the online location of the following documents and furthermore acknowledge that I am solely responsible for the content of each.

____ Syllabus SCIT1313

____ South Plains College Grievance Policy

____ South Plains College GRADE AND ACADEMIC DISCIPLINE APPEALS

Signature

Date