McLennan

COMMUNITY

COLLEGE

WACO, TEXAS

COURSE SYLLABUS

AND

INSTRUCTOR PLAN

FUNDAMENTALS OF PERIOPERATIVE
Concepts and Techniques

SRGT 1409.01

Mrs. M. Rierson

NOTE: This is a 16-week blended course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals. We are also concerned for your safety. We are working through COVID-19 guidelines to make sure we offer a safe environment for you and our faculty. This will include smaller class sizes to manage social distancing and proper cleaning techniques. You will have the advantage of a physical classroom experience but may also need to work part of the time online as we adjust to limited classroom capacity. This will also allow us the flexibility to move online if so directed by federal, state and/or local COVID 19 guidelines. Faculty and staff are preparing now to ensure that you have the best experience in the midst of these uncertain times.

FUNDAMENTALS OF PEROPERATIVE
Concepts and Technique

SRGT 1409.01

Course Description:
This is a 16 week introductory course to the field of Surgical Technology. This course is designed to provide the surgical technologist student with the knowledge of how to function competently and safely in the health care setting with an in-depth coverage of perioperative concepts such as aseptic/sterile principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. Students will be actively involved in applying learned concepts in the lab.

Prerequisites and/or Corequisites:
Prerequisite:
> HPRS 1206 Medical Terminology
> BIOL 2401 A&P I
> BIOL 2402 A&P II
> HPRS 2301 Pathophysiology

Corequisites:
> SRGT 1405 Introduction to Surgical Technology
> SRGT 1260 Clinical - Introductory
> SRGT 2130 Professional Readiness

Course Notes and Instructor Recommendations:
- Attend all lectures and labs and be on time.
- Be prepared for class by having completed all reading and homework assignments before class and bring all textbooks and handouts to class each day.
- Check D2L|Brightspace **daily** for messages, assignments, grades and any class information updates.
- Students are expected to use their MCC issued student email for all communications for this program. Those that need help setting-up or accessing their student email should seek help immediately. The student will be held responsible for all communications that are sent to the student email.
- Program uniforms will be worn to clinical, in the class setting, and the lab.
- Students can bring laptops, tablets or ipads to class, but must remember that they are only to be used for course purposes during class time. If the student is caught "surfing the web" then no electronic devices will be allowed.
- Cellphones are to be turned off during lecture and testing.
- No wireless Bluetooth earbuds (i.e. AirPods) are allowed during lecture or testing.
- No Smartwatches may be worn during tests.
- Testing days will be announced, no leaving the room after the tests begins, no entrance after the test starts.
- Students are expected to be in class, on time. For security reasons, the **doors to the classroom will be locked from the outside and the doors will remain locked after class starts**.

- All students are required to complete the COVID-19 self-assessment before coming to campus. Self-assessment may be found in BrightSpace.
- All students will be required to wear a mask while on campus.
- All students will practice social distancing
- Temperatures will be taken at the beginning of face-to-face meetings.

Instructor Information:
Instructor Name: Mrs. Marcie Rierson MSHRM, CST
MCC E-mail: mrierson@mclennan.edu
Office Phone Number: 299-8292
Office Location: HP112
Office/Teacher Conference Hours: by appointment ***All office hours will be held virtually. Please see information in BrightSpace course.**

Instructor Name: Mrs. Felicia Howard AA, AS, CST
MCC E-mail: fhoward@mclennan.edu
Office Phone Number: 299-8301
Office Location: HP 111
Office/Teacher Conference Hours: by appointment

Class time and Location:
Due to COVID-19 restrictions, this course will be taught in a blended format. A blended format for this course will include a meeting face-to-face once a week on campus and completing assignemnts online to meet contact hours.

Face-to-face meetings will be **Thursday 8:30 – 11:05** on MCC campus in the Health Professions Nursing (**HPN**) builing room **103**

Required Text & Materials:
Title: **Bundle:** Surgical Technology for The Surgical Technologist: A Positive Care Approach + Study Guide with Lab Manual + Mind tap
Author: Kevin Frey
Edition: 5th
Publisher: Cengage
ISBN: 9781337584876

MCC Bookstore Website: http://www.mclennan.edu/bookstore/

Student Support/Resources:
MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at http://www.mclennan.edu/campus-resource-guide/

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8:00 a.m.-5:00 p.m. to meet with a success coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) is open 12:00 p.m.-1:00 p.m., Monday-Friday, without an appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:
Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html to find out more about the emergency grant. The application can be found here (https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

Minimum Technical Skills:
Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:
In the event MCC's technology systems are down, you will be contacted/notified through your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

* Click Here for the Minimum System Requirements to Utilize MCC's D2L|Brightspace (https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html)
Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Email Policy:
McLennan Community College would like to remind you of the policy
(http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf) regarding college
email. All students, faculty, and staff are encouraged to use their McLennan email addresses
when conducting college business.

A student's McLennan email address is the preferred email address that college employees
should use for official college information or business. Students are expected to read and, if
needed, respond in a timely manner to college emails.

Instructional Uses of Email:
Faculty members can determine classroom use of email or electronic communications. Faculty
should expect and encourage students to check the college email on a regular basis. Faculty
should inform students in the course syllabus if another communication method is to be used and
of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with her/his students, it should be
reflected in the course syllabus and information should be provided for the preferred form of
communication.

Email on Mobile Devices:
The College recommends that you set up your mobile device to receive McLennan emails.

Forwarding Emails:
You may forward the emails that come to your McLennan address to alternate email addresses;
however, the College will not be held responsible for emails forwarded to an alternate address
that may become lost or placed in junk or spam filters.

Methods of Teaching and Learning:
Methods of teaching include but are not limited to:
- Lectures, demonstrations, and Classroom discussions
- Lab exercises
- Tests/quizzes – traditional or Kahoot
- Tutorial video/media/software
- Homework and online assignments
- MindTap

Course Objectives and/or Competencies:

To provide the introductory knowledge and skills that will enable the student to evaluate new concepts, attain more knowledge, and solve problems within the perioperative field through:

1. application of physical and biological sciences
2. basic background in behavioral theories and social sciences
3. application of microbiology theories to the operating room
4. comprehension of the surgical setting, environment, and the different phases of patient care preoperative, intra-operative, and post-operatively
5. introduction and application of aseptic principles and theory.
6. integration of expected professional behavior within the workplace
7. demonstration and application of lab experiences in the perioperative setting

Course Outline or Schedule:
HEALTHCARE SCIENCES

UNIT 1: Chapter 7: Preventing Perioperative Disease Transmission

In this unit the student will review basic microbiology and how it relates to the operating room. The student will also learn the infectious process and how to prevent infection in the perioperative setting and the core concepts of aseptic technique and aseptic principles. By the end of this unit the student will be able to discuss and apply theory relating to the following topics:

I.   Microbes and the Process of Infection
          A.   Introduction to Microbiology
                1.   History of Microbiology
                2.   Microbiology Today
                3.   Basic Chemistry of Life
          B.   Cell
                1.   Classification
                2.   Structure of Eukaryotic Cells
                3.   Structure of Prokaryotic Cells
                4.   Transport Across the Cytoplasmic Membrane
          C.   Introduction to Microscopy
                1.   Types of Microscopes
                2.   Parts of a Microscope
                3.   Use of a Microscope
          D.   Staining Methods
                1.   Simple Stains
                2.   Different Stains
          E   Culture Media
                1.   General Culture Media

  2. Special Culture Techniques
 3. Preserving Cultures
F. Nomenclature of Microbiology
 1. Taxonomy
 2. Binomial Nomenclature
G. Host-Microbe Relationships
 1. Symbiosis
 2. Normal Flora
H. Types of Microorganisms
 1. Bacteria
 2. Protozoa
 3. Fungi
 4. Algae
 5. Viruses
 6. Viroid's
 7. Prions

II. Common Causative Agents
  A. Affecting the Skin and Wounds
   1. Bacteria
   2. Viruses
  B. Affecting the Nervous System
   1. Bacteria
   2. Viruses
   3. Prions
  C Affecting the Eyes
   1. Bacteria
  D Affecting the Cardiovascular System
   1. Bacteria
  E. Affecting the Respiratory System
   1. Bacteria
   2. Fungi
  F Affecting the Digestive System
   1. Bacteria
   2. Viruses
  G. Affecting the Urinary and Reproductive Systems
   1. Bacteria
   2. Viruses
   3. Protozoa
   4. Fungi
  H. Affecting the Immunological System

           1.   Human immunodeficiency virus (HIV)

I.   Immunology
- 1. Innate Immunology
  - a. First Line of Defense
  - b. Second Line of Defense
- 2. Acquired Immunity
  - a. Components
  - b. Immune Response
  - c. Types of Acquired Immunity
- 3. Immunization
  - a. Active Immunization
  - b. Passive Immunization
- 4. Immune Disorders
  - a. Hypersensitivities
  - b. Autoimmune Diseases
  - c. Immunodeficiency Diseases

J.   Process of Infection
- 1. Symbiotic Relationships between Microbes and Their Hosts
  - a. Normal Microbiota
  - b. Opportunistic Pathogens
- 2. Reservoirs of Infectious Pathogens
- 3. Infection
  - a. Contamination
  - b. Portal of Entry
  - c. Portal of Exit
  - d. Mode of Transmission
  - e. Classification of Infectious Disease
- 4. Nature of Infectious Disease
  - a. Symptoms, sign and syndromes
  - b. Etiology
  - c. Virulence
  - d. Stages of infectious Disease
- 5. Epidemiology
  - a. Frequency of Disease
  - b. Epidemiological Studies
  - c. Health Care Facility Epidemiology
  - d. Public Health

III.   Pathophysiology – Review
- A. Introduction to Disease

        1.   Causes of Disease
        2.   Manifestations of Disease
        3.   Terminology
    B.   Tumors
        1.   Terminology
        2.   Classification
        3.   Causes of Cancer
        4.   Diagnosis of Cancer
        5.   Surgical Treatments According to Location, Grade and Stage
        6.   Systemic Effects of Cancer
    C.   Fluid and Hemodynamic Disorders
        1.   Dehydration
        2.   Edema
        3.   Electrolyte Imbalances
        4.   Embolism
        5.   Hemorrhage
        6.   Hyperemia
        7.   Shock
        8.   Sodium/Potassium
        9.   Thrombosis
    D.   Inflammation and Infection
        1.   Effects on Healing of the Surgical Wound
        2.   Trauma and Effects on Tissue Healing
        3.   Types of Infection and Effect on the Surgical Wound

IV.   Methods of Disinfection and Sterilization
        A.   Definitions
        B.   Terminal Disinfection and Sterilization
        C.   Instrument Preparation and Wrapping
        D.   Sterilization
        E.   Sterilization Agents

V.   Sterile Storage and Distribution
        A.   Sterile Storage
        B.   Distribution

VI.   Environmental Disinfection of the OR
        A.   Purposes of Environmental Decontamination
        B.   Procedure
        C.   Disinfection
        D.   Types of Disinfectants

Student's Responsibilities:
    Read: Surgical Technology for the Surgical Technologist – Chapter 7

Classroom Handouts
PowerPoints on D2L|Brightspace
Be prepared for Unit 1 Test
Complete MindTap exercises for Chapter 7

UNIT 2: Chapter 12: Surgical Case Management
Surgical Technology
I.   Non-sterile Role of the Surgical Technologist
        A.   Attire
              1.   Basic OR Attire
              2.   Accessory Attire
              3.   Restrictions
        B.   Preoperative Physical Preparation of the Patient
              1.   Patient Physical Preparation
              2.   Patient Checklist
        C.   Patient Identification
              1.   Purposes
              2.   Process
        D.   Transportation
              1.   Methods
              2.   Safety Features of Transportation Methods
              3.   Patient Transportation Safety Principles
              4.   Family considerations
        E.   Review of the Chart
              1.   Diagnostic Tests and Interventions
              2.   Documentation
              3.   Laboratory Values
        F.   Surgical Consent
              1.   Purpose
              2.   Types
              3.   Informed Consent
              4.   Contents of Consent Form
              5.   Legal Guidelines
        G.   Transfer
              1.   Methods
              2.   Equipment
              3.   Principles
        H.   Positioning
              1.   Factors
              2.   OR Table

3. Positions
4. Fowler's (Sitting)
5. Semi-Fowler's (Beach Chair)
6. Fracture Table
I. Urinary Catheterization
1. Indications
2. Considerations
3. Supplies
4. Procedural Steps
5. Monitoring Urine Output
6. Safety and Patient Risks
J. Skin Preparation
1. Concepts
2. Skin Prep
II. Sterile Role of the Surgical Technologist
A. Asepsis and Sterile Technique
1. Terminology
2. Sources of Contamination
3. Principles of Asepsis
B. Hand Hygiene and Surgical Scrub
1. Medical Hand wash
2. Surgical Scrub
C. Gowning and Gloving
1. Gowning
2. Gloving
3. Assist Team Members
4. Removal of Gown and Gloves
5. Other Gloving Techniques
D. Surgical Counts
1. Counting
2. Concepts
E. Draping
1. Materials
2. Types of Drapes
3. Draping the Patient for Surgical Procedures
4. Draping OR Furniture
5. Draping Ancillary Equipment
F Specimen Care
1. Methods of Obtaining Specimen
2. Specimen Handling

        3.   Containers
        4.   Specimen Labeling
        5.   Specific Types of Specimen and Their Care
        6.   Specimen Transfer and Storage
        7.   Incidents
    G.   Emergency Patient Situations
        1.   Malignant Hyperthermia
        2.   Cardiac Arrest
        3.   Hemolytic Reaction
        4.   Anaphylactic Reactions
        5.   Hemorrhage

III.   Perioperative Case Management
    A   Perioperative Concepts
        1.   Time & Motion Economy
        2..   Perioperative Monitoring of the Sterile Field
    B   Preoperative Case Management
        1..   Surgical Case Information
        2..   Preliminary Preparations
        3.   Preparation of the Operating Room
        4.   Timeout
    C.   Intraoperative Case Management
        1.   Skin Incision and Procedural Concepts
        2.   Specific Variations
        3.   Closing
    D.   Postoperative Case Management
        1.   Drains
        2.   Apply Dressings
        3.   Breakdown of Sterile Field
        4.   Remove Gown and Gloves
        5.   Wash Hands
        6.   Complete Documentation
        7.   Patient Transfer – OR Table to Stretcher
        8.   Transport Case Cart to Decontamination
    E   Postanesthesia Care (PACU)
        1.   Postoperative Patient Care
        2.   Equipment
        3.   Standards, Policies and Criteria for Patient Discharge

Assistant Circulator Role
    I.   Preoperative Assistant Circulator Duties
    II.   Intraoperative Assistant Circulator Duties

III.   Postoperative Assistant Circulator Duties

Student's Responsibilities:

Read: Surgical Technology for the Surgical Technologist – Chapter 12
        Classroom Handouts
        PowerPoints on D2L|Brightspace
        Be prepared for Unit 2 Test
        Complete MindTap exercises for Chapter 12

Unit 3: Chapter 10: Instrumentation Equipment, and Supplies

I.   Equipment
                   A.   Lasers
                   B   Ultrasonic Scalpel
                   C.   Specialty Equipment
                   D.   Accessory Equipment
                   E   Instrumentation
                          1.   Instruments

II.   Exposure
                   A.   Principles of Retracting
                   B.   Selection of Exposure Devices
                   C.   Types and Uses of Retractors

III   Catheters and Drains
                   A.   Concepts of Catheter/Wound Drainage
                   B.   Catheters
                   C.   Indwelling Intravenous Catheters
                   D.   Adapters
                   E.   Collection Devices
                   F.   Drains
                   G.   Collection Devices
                   H,   Anchoring Methods
                   I.   Safety Precautions

IV   Tissue Replacement Materials C
                   A.   Biological Wound Cover
                   B.   Bone Materials
                   C.   Synthetic Materials
                   D.   Biologic Materials
                   E.   Storage of Tissue Replacement Materials

V.   Draping
                   A.   Materials
                   C.   Types of Drapes
                   B.   Draping the Patient for Surgical Procedures

D.   Draping OR Furniture
E.   Draping Ancillary Equipment

Student's Responsibilities:

Read: Surgical Technology for the Surgical Technologist – Chapter 10
Classroom Handouts
PowerPoints on D2L|Brightspace
Be prepared for Unit 3 Test
Complete MindTap exercises for Chapter 10

UNIT 4: Chapter 11: Hemostasis, Wound Healing, and Wound Closure

I.   Abdominal Incisions

         A.   Anatomy of the Abdominal Wall
         B.   Abdominal Incisions

II   Hemostasis

         A.   Principles
         B.   Methods of Hemostasis
         C.   Techniques

III   Wound Closure

         A.   Sutures
         B.   Surgical Needles
         C.   Surgical Staplers
         D.   Ligating Clips
         E.   Tissue Repair Materials
         F.   Surgical Dressings
             1.   Function
             2.   Preparation for Dressing Application
             3.   Dressing Types

IV   Wound Healing

         A.   Definitions
         B.   Types of Wounds
         C.   Types of Wound Healing
         D.   Considerations
         E.   Inflammatory Process
         F.   Phases of Wound Healing
         G.   Factors Influencing Healing
         H.   Complications
         I.   Wound Classifications

Student's Responsibilities:

Read: Surgical Technology for the Surgical Technologist – Chapter 11

Classroom Handouts
PowerPoints on D2L|Brightspace
Be prepared for Unit 4 Test
Complete MindTap exercises for Chapter 11

UNIT 5: Chapter 13: Diagnostic Procedures

I. Diagnostic Procedures
   A. Sources of patient data
   B. Ionizing radiation
   C. Magnetic Resonance Imaging (MRI)
   D. Ultrasonograohy
   E. Plethysmography and Phleborheography
   F. Electrodiagnostic Studies
   G. Pulmonary Assessment
   H. Laboratory Studies
   I. Surgical Specimens

Student's Responsibilities:

Read: Surgical Technology for the Surgical Technologist – Chapter 13
        Classroom Handouts
        PowerPoints on D2L|Brightspace
        Complete MindTap exercises for Chapter 13

Comprehensive Final:

The Final exam will cover the following chapters: 7, 10, 11, 12, and 13.

Course Grading Information:

Grading Rubric

A – 89.5 - 100	40% Unit Tests (I, II, III, IV)
B – 79.5 – 89.4	30% Quizzes, Assignments, and Homework (MindTap)
C – 74.5 – 79.4	15% Comprehensive Final
D – 69.5 – 74.4	10% Lab
F – 0 – 69.4	5% Attendance
	100%

Late Work, Attendance, and Make Up Work Policies:

All assignments are expected to be turned in by the due dates established in BrightSpace and on the course outline. Late assignments will receive a 10 point deduction per day they are late. No late assignments will be accepted after 1 week of the due date. When tests are scheduled students are expected to have a scantron, pencil, and arrive on time. The full sheet blue scantron will be used. The number for the scantron is SC982-E No students will be allowed in the classroom once the testing has begun. No students are allowed to leave during the test unless they are finished. It is the responsibility of each student to schedule a make-up test at the convenience of the instructor. All make-up tests will start with 10 pt.'s off.

Students are expected to be in class on time. For security reasons, the doors to the classroom will be locked from the outside and the doors will remain locked after class starts.

Attendance will be taken at the beginning of class for face-to-face meeting. A five minute grace period will be given. Students arriving after the five minute mark will receive a tardy. Three tardies will equal one absence. Students that leave before half of the class is completed will be counted absent for that day. Students that choose to leave class early are responsible for information that is missed. Any activites that are missed due to leaving early cannot be made up.

Attendance for the online portionof the class will be taken through discussion questions. Each week a question pertaining to the course will be posted. Discussion questions are due on Sunday at 11:59pm. No late discussions will be accepted.

If absences between face-to-face attendance and online attendance equal more than 25%, the student will be removed from the course and subsequently the Surgical Technology program.

Student Behavioral Expectations or Conduct Policy:

To be able to take the Clinical Practical Exam students must maintain a 74.5 or better in SRGT 1409 prior to testing time.

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity. Unprofessional behavior or conduct will not be tolerated in the classroom or lab setting. Inappropriate behavior will not be tolerated and will be dealt with immediately. Please refer to the MCC Highlander Guide and the ST program handbook for a more detailed explanation. Students are not allowed to eat or drink in the OR lab or computer lab.

Due to the sensitive nature of some of the classroom discussions students are not to take topics outside of the classroom and into the public setting. This is a direct violation of program policies and will not be tolerated and will lead to dismissal from the program.

**Please refer to your student handbook for further information.

* Click Here for the MCC Academic Integrity Statement
(www.mclennan.edu/academic-integrity)
The link above will provide you with information about academic integrity, dishonesty, and cheating.

* Click Here for the MCC Attendance/Absences Policy
(https://www.mclennan.edu/highlander-guide/policies.html)
Click on the link above for the college policies on attendance and absences. Your instructor may have guidelines specific to this course.

Accommodations/ADA Statement
Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:
> disabilities@mclennan.edu
> 254-299-8122
> Room 319, Student Services Center

* Click Here for more information about Title IX
(www.mclennan.edu/titleix)
We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Vice President for Student Success) at

299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC by calling 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting the following website: http://www.lighthouse-services.com/mclennan/.

McLennan's Title IX webpage (http://www.mclennan.edu/titleix/) contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence or domestic violence.

* *You will need to access each link separately through your Web browser (for example: Internet Explorer, Mozilla, Chrome, or Safari) to print each link's information.*