



SRGT-1244-101H3-SP2026

## Technological Sciences for the Surgical Technologist

### Course Information

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#### Spring 2026 Semester

**Start/End Date:** 01/12/26 - 05/07/26 **Day(s):** F **Start/End**

**Time:** 09:00AM - 12:00PM **Room:** STEM 235 **Instructional Method:** HLEC

**Start/End Date:** 01/12/26 - 05/07/26 **Day(s):** F **Start/End**

**Time:** 09:00AM - 12:00PM **Room:** STEM 220 **Instructional Method:** HLAB

Key:

LEC-Lecture, LAB-Lab, ILEC-Internet Lecture, ILAB-Internet Lab, HLEC-Hybrid Lecture, HLAB-Hybrid Lab, CLIN-Clinical, Coop-Cooperative Education, INTR-Internship, PRAC-Practicum

### Instructor Information

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Lydia Wardell

**Phone:** 409-933-8199

**Email:** lwardell@com.edu

**Office Hours:** Monday-Friday 1PM to 4:30PM; On campus @ 8:30AM in Classroom 235/220 on Monday, Wednesday, Friday

**Location:** STEAM 2nd floor- 225-42

#### **Additional Information:**

Tuesday and Thursdays are clinical days for the Surgical Technology students. On these days I may be out on site, but if needed I can be available on campus with prior notice.

### Additional Course Information

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Students will learn the different types of biomechanics and computer technology as well as the different types of energy sources that they will encounter in surgery. Students will be introduced to the categories of minimally invasive and robotic-assisted surgical instruments and their functions in surgery. This will be using the LapSim simulator with your personal log in you created in SRGT 1509. There will be a number of skills you will need to master to increase your laparoscopic assisting skills.

## Required Textbook and Materials

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**Title: Surgical Technology Principles and Practice, 8th edition**

**ISBN:** 978-0-323-68018-9

**Authors:** Fuller, Joanna

**Publisher:** Elsevier

**Additional Information:**

Use your same book from the Fall semester

**Title: Surgical Technology Principles and Practice**

**Subtitle:** Workbook

**ISBN:** 9780323935333

**Authors:** Fuller, Joanna

**Publisher:** Elsevier

**Edition:** 8th

**Title: Surgical Instrumentation: An Interactive Approach**

**Subtitle:** Instrument Book

**ISBN:** 9780323809559

**Authors:** Renee Nemitz

**Publisher:** Elsevier

**Edition:** 4th

## Optional Textbook and Materials

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**Title: LapSim Simulator**

**Additional Information:**

Simulation is a powerful path to shortened learning curves, increased confidence, and standardized training for medical professionals.



## Course Description

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Specialized surgical modalities covered include endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies.

## Course Requirements

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Course requirements:

- Attend all classes.
- Complete all exams and assignments.
- Participate in class activities and labs.
- Participate in group activities.

## Determination of Course Grade/Detailed Grading Formula

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Determination of Course Grade/Detailed Grading Formula:

The Surgical Technology program utilizes this course grading scale:

- 90-100% = A
- 80-89% = B
- 75-79% = C
- 65-74% = D
- 64% or below = F

Note: A minimum passing grade of C or 75% is required for successful completion of the course.

## Late Work, Make-Up, and Extra-Credit Policy

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### Make-Up Policy:

Late assignments are not accepted for any course in the Surgical Technology Program. Students are responsible for completing all assignments and are responsible for any course content missed by absence or tardiness.

## Attendance Policy

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### Attendance Policy:

Students must attend and participate in every session of all classes for which they are registered. Regular attendance is a critical component to being successful in courses. Students should consult their instructors when it is necessary to miss a class beforehand. COM (College of the Mainland) (College of the Mainland) recognizes no excused absences other than those prescribed by law: religious holy days and military service. Students are expected to attend all didactic and lab classes.

Excessive absences (including arriving late and leaving early) prevents the student from meeting the objectives of the course and the Program. If a student is absent, they must contact the faculty before the start of class and explain the situation. A student who misses more than two (2) class periods will be given a written warning for excessive absences. A student who misses three (3) or more class periods is considered unable to complete the program objectives and can be removed from the class by an instructor-initiated withdrawal.

A student not in class at the given start time will be considered tardy. A student over ten (10) minutes late may be refused entry into the class for that period at the instructor's discretion. Entering class late or leaving early disrupts the class and is disrespectful to faculty and peers. Class activities missed during the absence may not be made up. Excessive tardiness will result in remediation. A student who cannot successfully complete a remediation plan due to excessive tardiness, can be removed from the class by an instructor-initiated withdrawal.

Extenuating Circumstances can be discussed with Program faculty.

## Communicating with Your Instructor

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ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via D2L or other LMS)

## Academic Dishonesty

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Academic Dishonesty:

Any academic policy incident will be dealt with in line with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a grade of zero on the exam and the student will be referred to the Office of Student Conduct for appropriate discipline action. <http://www.com.edu/student-services/student-handbook.php>

## Student Concerns

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If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact **Dr. Rebecca Montz, Dean of Instructions** at [409-933-8948](tel:409-933-8948) or [rmontz@com.edu](mailto:rmontz@com.edu).

## Classroom Conduct Policy statement:

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The goal is that policies and procedures are enforced in a consistent and just manner. High ethical standards help ensure that the rights of students, faculty, and staff are protected. These policies are to be fair, equitable, and consistently applied, with the goal of promoting professionalism. Please refer to the COM Surgical Technology program handbook for classroom and clinical facility conduct expectations.

## Course Outline

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The course outline is a general plan for the course; deviations may be necessary and will be announced.

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Week 1	Lesson Overview:	Assignments:
Date:	<p>Read: Fuller, Surgical Technology Principles and Practice.</p> <p>Chapter 2-Communication and Teamwork</p> <p>Read: Surgical Instrumentation: An Interactive Approach, 4th Edition. Renee Nemitz</p>	<p>Fuller, Surgical Technology Principles and Practice, Chapter 2, Review Questions and Case Studies</p> <p>Chapter 2- Fuller, Surgical Technology Principles and Practice, Workbook.</p> <p>Nemitz, Surgical Instruments- Chapters 5 and 6</p>
Week 2	Lesson Overview:	Assignments:
Date:	<p>Chapter 2- Communication and Teamwork</p> <ul style="list-style-type: none"> <li>• What is the nonverbal communication used in the operating room?</li> <li>• Computers in the Perioperative Environment</li> <li>• What is Hardware (Physical Components)?</li> <li>• Computer software</li> <li>• Computer Networks</li> </ul>	<p>Fuller, Surgical Technology Principles and Practice, Chapter 2, Review Questions and Case Studies</p> <p>Chapter 2- Fuller, Surgical Technology Principles and Practice, Workbook.</p>

Week 3	Lesson Overview:	Assignments:
Date:	<p>Chapter 2- Communication and Teamwork</p> <ul style="list-style-type: none"> <li>• Navigating the Internet</li> <li>• Email</li> <li>• What are the components of a Professional Email?</li> </ul>	<p>Fuller, Surgical Technology Principles and Practice, Chapter 2, Review Questions and Case Studies</p> <p>Chapter 2- Fuller, Surgical Technology Principles and Practice, Workbook.</p>
Week 4	Lesson Overview:	Assignments:
Date:	<p>Read: Fuller, Surgical Technology Principles and Practice.</p> <p>Chapter 15- Energy Sources in Surgery</p>	<p>Fuller, Surgical Technology Principles and Practice, Chapter 15, Review Questions and Case Studies</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 15, Workbook.</p>

Week 5	Lesson Overview:	Assignments:
Date:	Chapter 15- Energy Sources in Surgery	Fuller, Surgical Technology Principles and Practice, Chapter 15, Review Questions and Case Studies
	LAB:	Fuller, Surgical Technology Principles and Practice, Chapter 15, Workbook.
	<ul style="list-style-type: none"> <li>• Review of Electricity</li> <li>• Electrosurgery- the patient return (dispersive) electrode</li> <li>• Electrosurgery Components and their use. Explain how to prevent accidents?</li> </ul>	
Week 6	Lesson Overview:	Assignments:
Date:	Chapter 15- Energy Sources in Surgery	Chapter 15- Energy Sources in Surgery
	LAB:	<ul style="list-style-type: none"> <li>• How are they used in surgery?</li> <li>• What is needed for laser safety?</li> </ul>
	<ul style="list-style-type: none"> <li>• Ultrasonic Energy</li> <li>• Cryosurgery</li> <li>• Laser Surgery</li> <li>• Laser Safety</li> </ul>	



Week 7	Lesson Overview:	Assignments:
Date:	Chapter 15- Energy Sources in Surgery	Answer Questions:
	LAB: <ul style="list-style-type: none"> <li>Electrosurgery in Minimally Invasive Surgery</li> </ul>	<ul style="list-style-type: none"> <li>What is the difference between capacitive coupling and indirect coupling?</li> <li>What is smoke plume? How do you reduce exposure to smoke plumes?</li> </ul>
Week 8	Exam Preparation:	Mid-term Exam Preparation:
Date:	Fuller, Surgical Technology Principles and Practice <ul style="list-style-type: none"> <li>Chapter 2- Communications and Teamwork</li> <li>Chapter 15- Energy Sources in Surgery</li> </ul> <hr/> Instrument Identification Exam Review/Retake: <ul style="list-style-type: none"> <li>Surgical Instrumentation: An Interactive Approach, 4th Edition. Renee Nemitz, Chapter 5- Laparoscopic Instruments</li> </ul> Chapter 6- Robotic Instrument	Fuller, Surgical Technology Principles and Practice <ul style="list-style-type: none"> <li>Chapter 2- Communications and Teamwork</li> <li>Chapter 15- Energy Sources in Surgery</li> </ul> <hr/> Instrument Recognition Exam Review/Retake: Nemitz- Surgical Instruments Recognition Exam- Chapter 5- Laparoscopic Instruments Chapter 6- Robotic Instrument

Week 9	<p>Lesson Overview:</p> <p>Read:</p> <p>Fuller, Surgical Technology Principles and Practice</p> <p>Chapter 20- Minimally Invasive Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• What is the biggest preparation of the patient for minimally invasive surgery?</li> <li>• Explain and show the function of each component of the imaging equipment?</li> <li>• What are the surgical techniques used for insufflation in laparoscopy?</li> </ul>	<p>Assignments:</p> <p>Chapter 20- Fuller, Surgical Technology Principles and Practice, Review Questions and Case Studies</p> <p>Chapter 20- Fuller, Surgical Technology Principles and Practice, Workbook.</p>

Week 10	Lesson Overview:	Assignments:
Date:	<p>Read:</p> <p>Fuller- Surgical Technology Principles and Practice.</p> <p>Chapter 20- Minimally Invasive Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• What trocar-cannulas systems are used in MIS surgeries?</li> <li>• Describe again the specific electrosurgical RISK of direct and capacitive coupling during MIS surgery?</li> <li>• What is the structure and function of a flexible endoscope? Why are there different types and sizes?</li> </ul>	<p>Chapter 20- Fuller, Surgical Technology Principles and Practice, Review Questions and Case Studies</p> <p>Chapter 20- Fuller, Surgical Technology Principles and Practice, Workbook.</p>
Week 11	Lesson Overview:	Assignments:
Date:	<p>Read:</p> <p>Fuller- Surgical Technology Principles and Practice.</p> <p>Chapter 21- Robotic-Assisted Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• Tell me about the different components of a robotic-assisted surgical system?</li> <li>• What is the difference between robotic-assisted surgery and the standard minimally invasive surgery?</li> </ul>	<p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Review Questions and Case Studies</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Workbook.</p>

Week 12	<p>Lesson Overview:</p> <p>Date: Read:</p> <p>Fuller- Surgical Technology Principles and Practice.</p> <p>Chapter 21- Robotic-Assisted Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• Describe the movements of the wristed instruments.</li> <li>• What is the difference between an open and closed surgeon console?</li> </ul>	<p>Assignments:</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Review Questions and Case Studies</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Workbook.</p>
Week 13	<p>Lesson Overview:</p> <p>Date: Read:</p> <p>Fuller- Surgical Technology Principles and Practice.</p> <p>Chapter 21- Robotic-Assisted Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• Describe the patient cart and its function.</li> <li>• What are the features of robotic-assisted optics and vision systems?</li> </ul>	<p>Assignments:</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Review Questions and Case Studies</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Workbook.</p>

Week 14	<p>Lesson Overview:</p> <p>Date: Read:</p> <p>Fuller- Surgical Technology Principles and Practice.</p> <p>Chapter 21- Robotic-Assisted Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• What is the difference between the Veress needle technique and Hasson techniques for pneumoperitoneum?</li> <li>• What is the importance of robotic system room layout.</li> </ul>	<p>Assignments:</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Review Questions and Case Studies</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Workbook.</p>
Week 15	<p>Lesson Overview:</p> <p>Date: Read:</p> <p>Fuller- Surgical Technology Principles and Practice.</p> <p>Chapter 21- Robotic-Assisted Surgery</p> <p>LAB:</p> <ul style="list-style-type: none"> <li>• What is the role of the surgical technologist during robotic-assisted surgery?</li> <li>• Why is teamwork so important and communication during robotic-assisted surgery?</li> </ul>	<p>Assignments:</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Review Questions and Case Studies</p> <p>Fuller, Surgical Technology Principles and Practice, Chapter 21, Workbook.</p>

Week 16	Final Exam	Final Exam:
Date:	<ul style="list-style-type: none"> <li>• Chapters 20- Minimally Invasive Surgery</li> <li>• Chapters 21- Robotic-Assisted Surgery</li> </ul> <hr/> Instrument Identification Exam Review/Retake:  Nemitz, Surgical Instrumentation: An Interactive Approach  Chapter 5- Laparoscopic Instruments  Chapter 6- Robotic Instrument	<ul style="list-style-type: none"> <li>• Chapters 20- Minimally Invasive Surgery</li> <li>• Chapters 21- Robotic-Assisted Surgery</li> </ul> <hr/> Instrument Recognition Exam Review/Retake:  Nemitz, Surgical Instrumentation: An Interactive Approach  Chapter 5- Laparoscopic Instruments  Chapter 6- Robotic Instrument

## Accreditation Information

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The College of the Mainland Surgical Technology program is seeking accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) along with Accreditation Review Committee on Education in Surgical Technology/Surgical Assisting (ARC-STSA).

## Withdrawal Policy

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**Withdrawal Policy:** Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the **December Mini session is December 23**. The last date to withdraw from the **1st 8-week session is February 25**. The last date to withdraw from the **16-week session is April 20**. The last date to withdraw for the **2nd 8-week session is April 29**.

## FN Grade

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**FN Grading:** The FN grade is issued in cases of failure due to a lack of attendance, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

## Institutional Policies and Guidelines

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**Grade Appeal Process:** Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook: <https://www.com.edu/student-services/student-handbook.html>. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

**Academic Success & Support Services:** College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

**ADA Statement:** Any student with a documented disability needing academic accommodations is requested to contact:

Kimberly Lachney, Student Accessibility Services Coordinator

Phone: 409-933-8919

Email: [AccessibilityServices@com.edu](mailto:AccessibilityServices@com.edu)

Location: COM Doyle Family Administration Building, Student Success Center

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Early Alert Program:** The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

**Resources to Help with Stress:** If you are experiencing stress or anxiety about your daily living needs, including food, housing, or just feel you could benefit from free resources to help you through a difficult time, please click here: <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at [deanofstudents@com.edu](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).

**Nondiscrimination Statement:** The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.

## Concerns/Questions Statement

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Please contact the instructor regarding any issues or concerns about the course.

College of the Mainland is committed to providing an educational climate that is conducive to the personal and professional development of everyone. To ensure our commitment, the College has developed procedures for students to address their concerns within the college community. A student who has an unresolved disagreement with a faculty or staff member, another student, a student group, or dissatisfaction with the service received may initiate a complaint without prejudicing his or her status with the College. Please review the Surgical Technology Student Handbook and the [COM Student Handbook](#) for the process.



## Disclaimers / Additional Policies

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Course policies are subject to change. It is the student's responsibility to check Brightspace/D2L for corrections or updates to the syllabus. Any changes will be posted in Brightspace/D2L.

The Surgical Technology Program courses build upon each other. The ARRT board exam covers ALL content taught in the program. In each course, there will be test questions from prior modules and prior classes.

Please refer to the Surgical Technology Student Handbook for more information on specific program policies and additional clinical requirements.