

**Kingsborough Community College  
Of the City University of New York  
Department of Nursing**

**ST 5 – Advanced Surgical Procedures V**

**Prerequisites:** ST 4, ST4P

**Pre/Corequisites:** Bio 51

**Corequisite:** ST5P

**Course Syllabus:** Spring Semester 2018

**Credit Hours:** 4

**Class Time:** Monday/Wednesday 8-10:10 am

**Instructor:** Jorge A. Zamudio MS, CST  
**Office:** M417  
**Email:** Jorge.Zamudio@kbcc.cuny.edu;  
**Phone:** 973-945-7822  
**Office Hours:** Monday: 11:00 pm to 2:00 pm  
 Wednesday: 11:00 pm to 2:00 pm

**Catalogue Description** This is an orientation to specific surgical specialties including plastic, ophthalmic, vascular, orthopedic, neurosurgery, thoracic and cardiac surgery. This course intends to introduce the student to advanced surgical procedures with focus on system review, pathology, purpose in conjunction with those, techniques utilized during such specialties. Specialized instrumentation and surgical modalities of each Surgical Specialty will also be covered as it relates to the practice of Surgical Technology. In addition, Trauma and Transplant considerations will be discussed.

**Course Overview** This course will give the student the opportunity to acquire knowledge of the more complex surgical specialties considering the pathology and goals associated surgical interventions. It will be taught as a 4-hour weekly lecture in conjunction with Practicum III, which will provide an active hands-on component. The principles will be integrated with the practices at all times with clinical experience in the hospital setting.

**Student Learning Outcomes** Upon successful completion of this course, the student will:

Student Learning Outcomes	Assessment Measures
1. Discuss the relevant anatomy related to plastic, pediatric, ophthalmic, vascular, orthopedic, neurosurgery, thoracic and cardiac surgery.	Students will successfully answer examination questions related to the normal anatomic systems of each unit. This includes nerve and blood supply as well as type of surgical approach.
1. Describe the pathology that prompts surgical intervention.	Students will successfully answer examination questions related to the pathology affecting each anatomical system that would require surgical intervention.
2. Discuss preoperative diagnostic tests and preparations.	Students will successfully answer examination questions related to the preoperative preparation of patients requiring surgical interventions for each anatomical system.
3. Identify the names and uses of instruments, supplies and drugs pertinent to that body system,	Students will demonstrate a working knowledge of the instruments, supplies and medications related to the surgery for each anatomic system by successfully answering test questions as well as submitting weekly homework assignments.
4. Identify the names and uses of specialized equipment for that system.	Students will recall the appropriate types of equipment specific to each anatomic system by successfully answering test questions related to those systems.
5. Define and discuss advanced surgical procedures.	The students will answer test questions, submit homework and writing assignments to demonstrate an understanding of the surgical procedures related to each anatomic system.

6. Discuss the expected outcomes of the surgical intervention.	The students will answer test questions and submit homework assignments that identify the outcomes of each surgical procedure for the anatomic system.
7. Discuss the postoperative care and possible complications.	The students will answer test questions and submit homework assignments that identify the postoperative care and possible of each surgical procedure for the anatomic system.

**Topical Outline**

- Unit 1 Plastic and Hand Surgery
- Unit 2 Pediatric Surgery
- Unit 3 Ophthalmic Surgery
- Unit 4 Neurosurgery
- Unit 5 Orthopedics
- Unit 6 Vascular Surgery
- Unit 7 Thoracic Surgery
- Unit 8 Cardiac Surgery
- Unit 9 Trauma Surgery
- Unit 10 Emergency Procedures
- Unit 11 Transplant Surgery

<b><u>Teaching Strategies</u></b>	Lecture	Teacher-guided discussion
	Audio-visual materials	Demonstration/Return demonstration

**Required Textbooks**

- Fuller, Joanna K., *Surgical Technology: Principles and Practice*, 6th Edition, Elsevier
- Goldman, Maxine A., *Pocket Guide to the Operating Room, 3<sup>rd</sup> Edition*, F.A. Davis

**Recommended Textbooks**

- Meeker, Margaret H. and Jane C. Rothrock, *Alexander’s Care of the Patient in Surgery*, Mosby, St. Louis, Missouri, 13<sup>th</sup> Edition, 2007
- Thomas, L. Clayton, *Taber’s Cyclopedic Medical Dictionary*, F.A. Davis Company, Philadelphia, Pennsylvania, 20<sup>th</sup> Edition, 2006

**Attendance**

Since attendance and punctuality are a key requirement for all Surgical Technologist in an Operating Room, neither is acceptable without proper documentation as to the reason for either the absence or the lateness. A student is deemed excessively absent when he or she has been absent 15% of the number of contact hours a class meets during a semester. When a student is excessively absent, a grade of “W” or “WU” will be assigned as described in the college catalog.

**Health Clearance**

Students are required to have health clearance and evidence of CPR training prior to registration. Malpractice insurance is not covered by the college. During the semester any change in the student’s health clearance (e.g., serious illness, accident, pregnancy, etc.) necessitates evaluation by student health service. Student responsibility includes notification of the instructor and course coordinator. Health clearance must be maintained to continue course enrollment.

**Grading Scheme**

A+ 98-100	B+ 88-89	C+ 78-79	D+ 68-69	F 59 and below
A 95-97	B 85-87	C 75-77	D 65-67	W Withdrew without penalty
A- 90-94	B- 80-84	C- 70-74	D- 60-64	WU Unofficial Withdrawal (Counts as failure)

\* INC Term’s Work Incomplete. Counts as “F” grade unless work is completed within six months.

\* *The minimum passing grade required for a surgical technologist course (SUR) is a C+ (75%); any grade below a C (75%) is a failing grade. Refer to the Surgical Technologist Student Handbook for academic progression and grading criteria.*

## Assessment Criteria

Assessment Type	#	Description	% of Grade
Final Exam	1	Final Written Exam	30%
Unit Exams	7	End of Unit Tests	60%
Quizzes	10	Terminology 1% each	10%

## Course Policies

The Department of Nursing adheres to the Policies and Procedures on Academic Integrity as set forth by CUNY. See the Surgical Technology Student Handbook, the KCC Catalog and website for further details.

## Classroom Decorum

All pagers, wireless phones, electronic games, recording devices, radios, tape or CD players or other devices that generate sound must be turned off when any member of the academic community enters a classroom. Cellular devices are not allowed to be used during class time. Ear buds, or head phones are not allowed in the classroom. **Hats, hood and scarves are to be removed when entering the classroom for both lecture and lab.** Members of the academic community must exit the classroom to make or receive calls. Leaving the classroom to answer a phone call or use the bathroom is disruptive to the flow of the lecture; therefor re-admittance will be subject to the instructor's discretion.

## Homework Assignments

All written assignments must comply with college standards for written work. Written assignments are to be turned in during the class period on the date that they are due. All assignments must be handed in by the end of the course to complete the requirements of the course. A late assignment will meet the requirements of the course but will not receive full credit. Assignments that are turned in after the assigned due dates will receive a **5 point deduction for each late day** after the actual grade was granted. If written assignments are not submitted by the end of the course, the student will receive a grade of **"0"** for the assignment. All homework is to be **hand written**, submitted on **paper** on the due date and must reflect student's **original work.** **Photo copies and in-class USB/ or emails will not be accepted.** Printing should be completed at home or in a college computer lab. A conference with the instructor is required at mid-semester and at the end of the course to discuss the student's progress. Students may initiate conferences at other times.

## Makeup Policy

Students are expected to take all tests when scheduled. For unforeseen circumstances exceptions will made and faculty must know in advance. Students who do not take a test on the scheduled date are required to take a makeup test. All makeup tests will be given at the end of the semester on the same day of the final exam. Students who fail to take the scheduled exams or makeup will receive a grade of zero for that test.

## **CRITERIA FOR RETENTION IN THE SURGICAL TECHNOLOGY PROGRAM**

Receive no more than two grades below "C" in any of the required courses. Earn a minimum grade of "C" in all Surgical Technology Courses. Students earning less than a "C" grade in a Surgical Technology Course may repeat the course one time. The minimum grade for a repeated course is a "B." A second earned grade of less than "C" in any Surgical Technology course will result in dismissal from the Program. Students achieving a grade of less than "C" in any clinical course must apply in writing, no later than June 15<sup>th</sup> for re-entry in the next ST class. Students must submit an "Intent to Return to Nursing/Surgical Technology Program" form outlining what they thought caused them to be unsuccessful and include a plan for success that demonstrates significant changes in how they will approach the course. Readmission is subject to space availability and is not guaranteed. This form may be found on the Nursing Department website.

## Fatigue

Fatigue can certainly impair a health care worker's ability to provide safe, professional care. Thus KCC's Nursing Department states: All students need to carefully assess his/her level of fatigue, school requirements in terms of lecture, on-campus labs and clinical experiences and own work schedules. This assessment should carefully consider the potential impact of excessive employment on his/her ability to provide safe, professional care. Each student has an ethical responsibility to ensure that fatigue does not negatively impact student responsibilities.

**Netiquette**

Be mindful that electronic communication does not convey facial expression or tone of voice. It is important to consider what is written could be misinterpreted. Typing messages all in caps is regarded by most internet users as shouting; so unless you mean to yell at someone, type your message in standard format. It is appropriate to share your point of view as well as indicate disagreements with another's posts- however. It is not okay to make negative personal statements about another's posts. Since many people read their email on small screen devices, when appropriate, be brief. Clearly indicate the nature of your email messages. If you send an email from a personal email account, sign the message. Often the names of personal email accounts are different from a person's given name. Use the KCC email whenever possible.

**COURSE CALENDAR**

<b>Unit 1</b>	<b>Plastic Surgery and Hand Surgery</b>		
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Syllabus review and course requirements</p> <p>Upon completion of this unit the student shall be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to Plastic Surgery.</p>	<ul style="list-style-type: none"> <li>- Introduction</li> <li>- Anatomy</li> <li>- Instrumentation</li> </ul> <p><b>Aesthetic/cosmetic procedures</b></p> <ul style="list-style-type: none"> <li>- Abdominoplasty</li> <li>- Blepharoplasty</li> <li>- Dermabrasion</li> <li>- Liposuction</li> <li>- Augmentation mammoplasty</li> <li>- Reduction mammoplasty</li> <li>- Mastopexy.</li> <li>- Mentoplasty</li> <li>- Rhytidectomy</li> </ul> <p><b>Reconstructive Surgery</b></p> <ul style="list-style-type: none"> <li>- Full thickness skin graft (FTSG)</li> <li>- Scar revisions</li> <li>- Split thickness skin grafts (STSG)</li> <li>- Flaps</li> <li>- Tissue expansion</li> <li>- Cheiloplasty</li> <li>- Palatoplasty</li> <li>- Contracture release</li> <li>- Escharotomy</li> <li>- Debridement</li> </ul> <p><b>Hand Surgery</b></p> <ul style="list-style-type: none"> <li>- Carpal/metacarpal arthroplasty</li> <li>- Carpal tunnel release</li> <li>- Ganglion excision</li> <li>- Palmar fasciectomy</li> <li>- Release of trigger finger</li> <li>- Syndactyly release</li> <li>- Nerve repair/graft</li> <li>- Tendon repair/graft</li> <li>- Reimplantation procedures</li> </ul>	<p><b>WEEK 1</b> <b>Mon. 03/05- Wed. 03/07</b></p> <p><b>Reading Assignment:</b> Fuller 6<sup>th</sup> ed. Plastic surgery 737- 760, Hand surgery 810-814</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p>	

<b>Unit 2</b>	<b>Pediatric Surgery</b>		
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of this unit the student shall be able to:</p> <p>1. Discuss the role of the surgical technologist as it</p>	<p><b>Most Common Pediatric Procedures</b></p> <ul style="list-style-type: none"> <li>- tracheoesophageal fistula</li> <li>- biliary atresia</li> <li>- intestinal atresia</li> <li>- imperforate anus</li> </ul>	<p><b>WEEK 2</b> <b>Mon. 03/12 – Wed. 03/14</b></p> <p><b>Reading Assignment:</b> Fuller, P 930- 965</p>	<p><b>Mon. 03/12</b> <b>Terminology QUIZ # 1</b> <b>Plastic Surgery</b></p>

relates to Pediatric Surgery.	<ul style="list-style-type: none"> <li>- diaphragmatic hernia repair</li> <li>- excision of cystic hygroma</li> <li>- pyloromotomy</li> <li>- omphalocele repair</li> <li>- gastroschisis repair</li> <li>- reduction of intussusception</li> <li>- derotation of volvulus</li> <li>- colon resection for Hirschsprung's disease</li> <li>- bladder exstrophy repair</li> </ul>	<b>Handout:</b> Outline for pediatric procedures.	
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<b>UNIT 3</b>		<b>Ophthalmic Surgery</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to those procedures of the eye.</p>	<ol style="list-style-type: none"> <li>1. Eyelid procedures <ul style="list-style-type: none"> <li>- ectropian/entropion repair</li> <li>- levator resection</li> </ul> </li> <li>2. Strabismus procedures <ul style="list-style-type: none"> <li>- recession, resection</li> </ul> </li> <li>3. Corneal procedures <ul style="list-style-type: none"> <li>- keratoplasty/corneal transplant</li> <li>- radial keratotomy</li> </ul> </li> <li>4. Lens Procedures <ul style="list-style-type: none"> <li>- intracapsular cataract extraction</li> <li>- extracapsular cataract extraction</li> <li>- phacoemulsification</li> <li>- placement of intraocular lens</li> </ul> </li> <li>5. Retinal Procedures <ul style="list-style-type: none"> <li>- cryotherapy</li> <li>- scleral buckling</li> </ul> </li> <li>6. Vitreous Procedures <ul style="list-style-type: none"> <li>- anterior vitrectomy</li> <li>- posterior vitrectomy</li> </ul> </li> <li>7. Glaucoma Procedures <ul style="list-style-type: none"> <li>- iridectomy</li> <li>- trabeculectomy</li> <li>- placement of drainage shunt</li> </ul> </li> <li>8. Miscellaneous <ul style="list-style-type: none"> <li>- excision of pterygium</li> <li>- excision of chalazion</li> <li>- lacrimal duct probing</li> <li>- dacryocystorhinostomy</li> <li>- enucleation, orbital exenteration</li> </ul> </li> </ol>	<p style="text-align: center;"><b>WEEK 3</b> <b>Mon. 03/19 – Wed. 03/21</b></p> <p><b>Reading assignment:</b> Fuller, P 652-684 Instruments 660-665</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p>	<p style="text-align: center;"><b>Mon. 03/19</b> <b>EXAM # 1</b> <b>Plastics/Pediatrics</b></p> <p style="text-align: center;"><b>Terminology QUIZ # 2:</b> <b>Pediatric Surgery</b></p>

<b>UNIT 4</b>		<b>Neurosurgery</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to neurosurgery.</p>	<ol style="list-style-type: none"> <li>1. Cranial Procedures <ul style="list-style-type: none"> <li>- trephination</li> <li>- craniectomy</li> <li>- craniotomy <ul style="list-style-type: none"> <li>* aneurysm</li> <li>* tumor</li> </ul> </li> <li>- cranioplasty</li> <li>- ventricular shunting</li> <li>- transphenoidal hypophysectomy</li> <li>- stereotactic procedures</li> </ul> </li> <li>2. Spinal Procedures</li> </ol>	<p style="text-align: center;"><b>WEEK 4</b> <b>Mon. 03/26 – Wed. 03/28</b></p> <p><b>Reading assignment:</b> Fuller 6<sup>th</sup> ed., P 966-1019 Instruments, P 231-247</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p>	<p style="text-align: center;"><b>Mon. 03/26</b> <b>EXAM # 2</b> <b>Ophthalmology</b></p> <p style="text-align: center;"><b>Terminology QUIZ # 3</b> <b>Ophthalmic Surgery</b></p>

	<ul style="list-style-type: none"> <li>- cervical fusions</li> <li>- lumbar laminectomy</li> <li>- spinal fusion'</li> <li>- percutaneous discectomy</li> <li>- chemoneucleolysis</li> <li>- cordotomy/rhizotomy</li> </ul> <p>3. Peripheral Nerve Procedures</p> <ul style="list-style-type: none"> <li>- median nerve exploration</li> <li>- ulnar nerve transposition</li> </ul>		
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<b>UNIT 5</b>		<b>Orthopedic Surgery</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to orthopedic procedures.</p>	<ul style="list-style-type: none"> <li>• Anatomy review: types of Joints (synarthrosis, amphiarthrosis, synovial or diarthrosis, ball and socket joint), anatomical movements, tendons and ligaments.</li> <li>• Main considerations for case management: diagnostic procedures, patient transport and transfer, positioning, orthopedic or fracture table positioning, positioning devices, hemostatic agents, infection control, dressings, pneumatic tourniquet</li> <li>• Fracture management: type of fracture and patterns: classification of fractures, biomechanical forces on bone, reduction or fracture Repair, types of reductions (open, closed), traction and Distraction, fracture fixation (internal, external), fracture management, internal fixation devices, surgical options for fixation, compartment syndrome, bone healing process.</li> <li>• Orthopedic instrumentation and equipment, technology, implants (screws, plates, nails, joint replacements), bone grafts, cement</li> <li>• Casting Technique</li> <li>• Types of traction</li> </ul> <p>1. Fracture management</p> <ul style="list-style-type: none"> <li>- types of fractures</li> <li>- bone healing</li> <li>- closed reduction/casting</li> <li>- external fixation</li> <li>- open reduction/internal fixation</li> <li>- prosthetic replacement</li> <li>- treatment of non-union</li> </ul> <p>2. Shoulder Procedures</p> <ul style="list-style-type: none"> <li>- arthroscopy</li> </ul>	<p><b>WEEK 5</b>  <b>Mon. 04/09 – Wed. 04/11</b></p> <p><b>Reading assignment:</b>  Fuller, P 761-835  Instruments, P 231-247</p> <p><b>Recommended Reading:</b>  Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p>	<p><b>Mon. 04/09</b>  <b>EXAM # 3:</b>  <b>Neurosurgery</b></p> <p><b>Terminology QUIZ # 4:</b>  <b>Neurosurgery</b></p>
		<p><b>WEEK 6</b>  <b>Mon. 04/16 – Wed. 04/18</b>  <b>Finish Ortho</b></p>	<p><b>Mon. 04/16</b>  <b>Terminology QUIZ # 5:</b>  <b>Orthopedic Surgery</b></p>

	<ul style="list-style-type: none"> <li>- rotator cuff repair</li> <li>- humeral head arthroplasty</li> <li>- total shoulder replacement</li> </ul> <p>3. Upper limb Procedures</p> <ul style="list-style-type: none"> <li>- elbow arthroplasty</li> <li>- total elbow replacement</li> <li>- total wrist replacement</li> </ul> <p>4. Hip Procedures</p> <ul style="list-style-type: none"> <li>- Fixation of femoral head fractures</li> <li>- total hips arthroplasty</li> </ul> <p>5. Lower Limb Procedures</p> <ul style="list-style-type: none"> <li>- epiphydesis</li> <li>- fractures</li> </ul> <p>6. Knee Procedures</p> <ul style="list-style-type: none"> <li>- arthroscopy</li> <li>- Meniscectomy</li> <li>- anterior collateral ligament repair</li> <li>- total knee replacement</li> </ul> <p>7. Ankle/Foot Procedures</p> <ul style="list-style-type: none"> <li>- arthroscopy</li> <li>- arthrodesis</li> <li>- malleolar fracture</li> <li>- total ankle replacement</li> <li>- triple arthrodesis</li> <li>- bunionectomy</li> <li>- correction of hammer toe</li> </ul> <p>8. Miscellaneous</p> <ul style="list-style-type: none"> <li>- amputation</li> <li>- disarticulation</li> <li>- osteotomy</li> <li>- tendon procedures</li> </ul>		
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<b>UNIT 6</b>		<b>Vascular Procedures</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
Upon completion of the unit the student will be able to: 1. Discuss the role of the surgical technologist as it relates to those procedures of the peripheral vascular system.	<p>1. Dialysis Procedures</p> <ul style="list-style-type: none"> <li>- arteriovenous fistula</li> <li>- arteriovenous graft</li> </ul> <p>2. Embolectomy/thrombectomy</p> <p>3. Carotid endarterectomy</p> <p>4. Bypass grafting</p> <ul style="list-style-type: none"> <li>- femoral - popliteal – tibial</li> <li>- aorto - iliac – femoral</li> </ul> <p>5. Repair of aneurysms</p> <ul style="list-style-type: none"> <li>- aortic</li> <li>- other</li> <li>- endovascular</li> </ul> <p>6. Inferior vena cava filters</p> <p>7. Sympathectomy</p> <p>8. Amputations</p>	<p><b>WEEK 7</b> <b>Mon. 04/23 – Wed. 04/25</b></p> <p><b>Reading assignment:</b> Fuller, P 836-869 Instruments, P 231-247</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p>	<p><b>Mon. 04/23</b> <b>EXAM # 4</b> <b>Orthopedics</b></p>

<b>UNIT 7</b>		<b>Thoracic Surgery</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
Upon completion of the unit the student will be able to:	<p>1. Closed Procedures</p> <ul style="list-style-type: none"> <li>- bronchoscopy</li> <li>- mediastinoscopy</li> <li>- thoracoscopy</li> </ul>	<p><b>WEEK 7</b> <b>Mon. 04/30 – Wed. 05/02</b></p> <p><b>Reading assignment:</b></p>	<p><b>Mon. 04/30</b> <b>EXAM # 5</b> <b>Vascular</b></p>

1. Discuss the role of the surgical technologist as it relates to thoracic surgery.	<ul style="list-style-type: none"> <li>- insertion of chest tubes</li> </ul> <p>2. Open Procedures</p> <ul style="list-style-type: none"> <li>- scalene node biopsy</li> <li>- thorocoplasty</li> <li>- thorocotomy</li> <li>- lung biopsy/wedge resection</li> <li>- pneumonectomy</li> <li>- decortication of lung</li> <li>- pericardial window</li> </ul>	<p>Fuller, P 870-891 Instruments, P 231-247</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p>	<b>Terminology QUIZ # 6</b> <b>Vascular</b>
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<b>UNIT 8</b>		<b>Cardiac Surgery</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to those procedures of the eye.</p>	<p>1. Pacemaker/automatic implantable cardiac defibrillator (AICD)</p> <p>2. Intra-aortic balloon insertion</p> <p>3. Congenital Anomalies</p> <ul style="list-style-type: none"> <li>- patent ductus arteriosus</li> <li>- coarctation of the aorta</li> <li>- atrial septal defect</li> <li>- ventricular septal defect</li> <li>- Tetralogy of Fallot</li> </ul> <p>5. Acquired lesions</p> <ul style="list-style-type: none"> <li>- Percutaneous transluminal coronary angioplasty (PTCA)</li> <li>- Coronary artery bypass graft</li> <li>- Valve repair/replacement</li> <li>- Ventricular Aneurysm</li> </ul>	<p><b>WEEK 8</b> <b>Mon. 05/07 – Wed. 05/09</b></p> <p><b>Reading assignments:</b> Fuller, P 892-929 Instruments, P 231-247</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p> <hr/>	<p><b>Mon. 05/07</b> <b>Terminology QUIZ # 7</b> <b>Thoracic Surgery</b></p>

<b>UNIT 9</b>		<b>Trauma</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to trauma.</p> <p>2. Describe assessment procedures to identify correct diagnosis of diverse types of trauma injuries and conditions.</p> <p>3. Describe the clinical manifestations and surgical treatment in trauma intervention.</p>	<p>1. Emergency triage</p> <ul style="list-style-type: none"> <li>- Mechanism of injury.</li> <li>- motor vehicle accidents</li> <li>- falls</li> <li>- penetrating trauma</li> <li>- explosions</li> <li>- thermal</li> </ul> <p>2. Assessment</p> <ul style="list-style-type: none"> <li>- lab tests</li> <li>- diagnostic procedures</li> </ul> <p>3. Multiple operative procedures</p> <p>4. Infection</p> <p>5. Autotransfusion</p> <p>6. Evidence Preservation</p> <p>7. Anesthesia Considerations</p> <p>8. Surgical Interventions</p> <ul style="list-style-type: none"> <li>- subdural hematoma</li> <li>- facial fractures</li> <li>- penetrating eye trauma</li> <li>- rib fractures/flail chest</li> </ul>	<p><b>WEEK 9</b> <b>Mon. 05/14– Wed. 05/16</b></p> <p><b>Reading assignment:</b> Fuller, 1020, 1043 Instruments, P 231-247</p> <p><b>Recommended Reading:</b> Goldman, Maxine A., <i>Pocket Guide to the Operating Room</i></p> <p>Handout:</p> <ul style="list-style-type: none"> <li>- Autotransfusion</li> <li>- Prioritization of Emergency Procedures</li> </ul>	<p><b>Mon. 05/14</b> <b>EXAM # 6</b> <b>Cardiothoracic Surgery</b></p> <p><b>Terminology QUIZ # 8</b> <b>Cardiac</b></p>



	<ul style="list-style-type: none"> <li>- aortic dissection</li> <li>- myocardial contusion</li> <li>- splenic rupture</li> <li>- liver injury</li> <li>- skeletal injuries</li> </ul>		
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<b>UNIT 10</b>	<b>Emergency Procedures</b>		
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Describe the clinical manifestations and management of an anaphylactic reaction.</p> <p>2. Describe the clinical manifestations and management of a hemolytic transfusion reaction</p> <p>3. Describe the clinical manifestations and management of a local anesthetic toxicity reaction.</p> <p>4. Describe the necessary equipment for suctioning and the procedure for suctioning the nose and mouth.</p> <p>5. Describe the clinical manifestations and management of DIC.</p> <p>6. Describe the clinical manifestations of impending cardiac arrest.</p> <p>7. Demonstrate competence in Basic Life Support</p> <p>8. Describe the roles of the perioperative personnel during a cardiac arrest in the OR</p>	<ol style="list-style-type: none"> <li>1. Clinical Manifestations</li> <li>2. Management</li> <li>3. Prevention</li> <li>4. Equipment</li> <li>5. Treatment</li> <li>6. Causes</li> </ol> <ol style="list-style-type: none"> <li>1. Cardiopulmonary Resuscitation (CPR) techniques.</li> </ol> <p><b>Roles and responsibilities</b></p> <ol style="list-style-type: none"> <li>2. Anesthesia.</li> <li>3. Surgeon</li> <li>4. Nursing</li> <li>5. Surgical Technologist</li> </ol>	<p style="text-align: center;"><b>WEEK 10</b> <b>Mon. 05/21 – Wed. 05/23</b></p> <p><b>Reading assignment:</b> Fuller 6<sup>th</sup>. ed.,</p> <ul style="list-style-type: none"> <li>- Responsibilities p 6,</li> <li>- Disasters p. 71-88,</li> <li>- Staff assignments p. 84,</li> <li>- The trauma pt. 99-101,</li> <li>- Crash cart meds 277,</li> <li>- Emergencies 299-302,</li> <li>- Trauma and debridement 404, emergency settings and counts 425-426,</li> </ul> <p><b>Handouts:</b></p> <ul style="list-style-type: none"> <li>- Outline of anaphylaxis</li> <li>- Outline of transfusion</li> <li>- Local Anesthesia Toxicity</li> <li>- Procedure for Suctioning</li> <li>- Cardiac Arrest</li> <li>- Basic Life Support Review</li> <li>- Arrest in the Operating Room</li> </ul>	<p style="text-align: center;"><b>Mon. 05/21</b> <b>Terminology 1 QUIZ # 9</b> <b>Trauma, Emergency</b></p>

<b>UNIT 11</b>		<b>Organ Transplant/Tissue Donation and Procurement</b>	
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
<p>Upon completion of the unit the student will be able to:</p> <p>1. Discuss the role of the surgical technologist as it relates to organ/tissue donation and procurement.</p>	<ol style="list-style-type: none"> <li>1. NYS Regulations</li> <li>2. Organ Donor Network</li> <li>3. Criteria for donation</li> <li>4. Order of procurement</li> <li>5. Typical procurement procedures</li> <li>6. Transplantation: <ul style="list-style-type: none"> <li>- kidney</li> <li>- liver</li> <li>- heart</li> <li>- lungs</li> <li>- cornea</li> <li>- islet cells</li> <li>- skin</li> <li>- bone</li> <li>- tendon</li> </ul> </li> </ol>	<p style="text-align: center;"><b>WEEK 11</b> <b>Wed. 05/30</b></p> <p><b>Reading assignment:</b> Fuller, P 870-877, 580-582, 500, 830-831</p> <p>Handouts:</p> <ul style="list-style-type: none"> <li>- NYS Legislation related to procurement</li> <li>- Donor Network Criteria</li> </ul>	<p style="text-align: center;"><b>Wed. 05/30</b> <b>EXAM 7</b> <b>Trauma, Emergency Procedures, Organ Tissue Donor</b></p> <p style="text-align: center;"><b>Terminology 2 QUIZ # 10</b> <b>Trauma, Emergency</b></p>

<b>UNIT 12</b>			
<b>Learner Objectives</b>	<b>Content/Lecture Discussion</b>	<b>Related Learner Experiences</b>	<b>Assignments and Evaluation Due Dates</b>
		<p style="text-align: center;"><b>WEEK 12</b> <b>FINAL EXAM REVIEW</b> <b>Mon. 06/04</b></p>	