ST 4 – Surgical Procedures IV
Prerequisites: ST 3, ST3P
Pre/Corequisites: BIO 12
Corequisites: ST4P

Course Syllabus: 2010
Credit Hours: 3
Professor Haskell

Catalogue Overview: This is an orientation to specific surgical specialties including General surgery, surgery of the gastrointestinal tract, biliary system, gynecology, urology, and surgery of the ear, nose and throat. This course intends to introduce the student to each anatomical system with a focused review of pathology in conjunction with those specific procedures performed. The instrumentation and surgical modalities of each specialty will be discussed as it relates to the practice of Surgical Technology. This course will be taught as a 4-hour weekly lecture in conjunction with Practicum II which will provide an active hands-on component.

Course Objectives: Upon successful completion of this course the student will be able to
1. Discuss the relevant anatomy of the body systems related to general, gastrointestinal, gynecological, ear, nose & throat and urological surgery.
2. Describe the pathology that prompts surgical intervention.
3. Discuss preoperative diagnostic tests and preparations.
4. Identify the names and uses of instruments, supplies and drugs pertinent to each body system,
5. Identify the names and uses of specialized equipment for each system.
6. Define and give an overview of the surgical procedures
7. Discuss the expected outcomes of the surgical intervention.
8. Discuss the postoperative care and possible complications.

Topical Outline:
Unit I  - General Surgery
Unit II - Gastrointestinal Surgery
Unit III - Biliary Surgery
Unit IV - Gynecologic Surgery
Unit V  - Ear, Nose, & Throat Surgery
Unit VI - Urological Surgery

Teaching Strategies:
Lecture
Teacher-guided discussion
Audio-visual materials
Demonstration/Return Demonstration
Course Requirements:

1. **Textbooks**
   Required:
   
   Recommended:

2. **Attendance**:
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.

3. **Health Clearance – CPR Training – Malpractice Insurance**:
Students are required to have health clearance, malpractice insurance and evidence of CPR training prior to registration.
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.

4. **Evaluation**:
Grades will be calculated according to college and departmental policy as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>97-100</td>
</tr>
<tr>
<td>A</td>
<td>93-96</td>
</tr>
<tr>
<td>A-</td>
<td>90-92</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
</tr>
<tr>
<td>C+</td>
<td>78-79</td>
</tr>
<tr>
<td>C</td>
<td>75-77</td>
</tr>
<tr>
<td>C-</td>
<td>70-74</td>
</tr>
<tr>
<td>D+</td>
<td>66-69</td>
</tr>
<tr>
<td>D</td>
<td>60-65</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60 and below</td>
</tr>
<tr>
<td>W</td>
<td>Withdrew without penalty</td>
</tr>
<tr>
<td>WU</td>
<td>Unofficial Withdrawal (Counts as failure)</td>
</tr>
<tr>
<td>INC</td>
<td>Term’s Work Incomplete. Counts as “F” grade unless work is completed within six months.</td>
</tr>
</tbody>
</table>

Grades will be determined as described below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Tests</td>
<td>60%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
</tbody>
</table>
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.

Students are expected to take all tests when scheduled. Exceptions to this rule will be for emergency situations and the 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. Students who fail to take the scheduled exams or makeup will receive a grade of zero for that test.

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. If written assignments are not submitted by the end of the course, the student will receive a grade of “F” for the course.

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.

5. Classroom Decorum:
   All pagers, wireless phones, electronic games, 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 allowed to be on in the classroom only if the owner is using the caller ID, voice messages or a vibrating battery or universal clip mechanism. NO TEXTING IS ALLOWED AT ANY TIME DURING CLASS AND/OR LABS. Members of the academic community must exit the classroom to make or receive calls.

6. Retention Criteria:
   a. receive no more than two grades under “C” in any pre or corequisites
   b. earn a minimum final grade of “C” in every Surgical Technology course.
   c. the student must repeat a Surgical Technology course once if the grade is below “C”
   d. a second grade below “C” will result in the student’s dismissal from the program.
   e. Students who fail a course achieving a grade of not less the “C-“ may apply to repeat the course one time only. Repeating the course is subject to space availability.
   f. Students must submit an “Intent to Return to Surgical Technology 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 when repeated.

7. Dress Requirements:
   a. In Uniform” refers to the standard uniform of KCC Department of Nursing/Surgical Technology Program
   1. All students are to change into appropriate scrubs provided by the agencies
   2. A knee-length, white lab coat is to be worn when necessary.
   3. The KCC patch is to be sewn on the left upper sleeve of the lab coat.
   4. Current KCC Student ID card is to be worn at all times.
   5. No jewelry other than plain wedding ring.
   6. Nails should not extend beyond the fingertips and should be rounded and clean.
   7. No nail polish is permissible in the clinical agencies.
   8. Hair is to be clean, off the face and above collar line.
   10. In the clinical setting, all requirements of the AORN for attire must be maintained.
8. 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.
<table>
<thead>
<tr>
<th>Unit 1</th>
<th>General Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learner Objectives</strong></td>
<td><strong>Content/Lecture Discussion</strong></td>
</tr>
</tbody>
</table>
| Upon completion of this unit the student shall be able to: 1. Discuss the role of the surgical technologist as it relates to those procedures in General Surgery | 1. General Surgical Procedures  
Hernia repair  
Inguinal  
Femoral  
Ventral  
Umbilical  
Endoscopic  
Breast Procedures  
Biopsy  
Lumpectomy  
Simple Mastectomy  
Modified radical mastectomy  
Transverse rectus abdominis  
Musculocutaneous flap  
Venous surgery  
Ligation and stripping  
Endoscopic surgery | **WEEK 1**  
Handout:  
Syllabus  
Week to week  
Reading Assignment:  
Fuller P 422-433, 501-508, 787-788, 362-374  
Rutherford, *Differentiating Surgical Instruments*, Chapter 1  
Media Center:  
1. Introduction to Surgical Instruments  
2. General Surgery Instruments | The student will:  
1. Demonstrate the procedure for cord isolation and use of synthetic patches for repair.  
2. Demonstrate the procedure for draping multiple areas for possible multiple procedures.  
3. Demonstrate the use of surgical supplies specific to venous surgery; ie vein strippers. |
| 2. Discuss the role of the surgical technologist as it relates to those procedures in Endoscopy | 1. Endoscopy procedures  
Colonoscopy  
Esophagogastroduodenoscopy  
Gastroscopy  
Sigmoidoscopy |  |  |
| 3. Discuss the role of the surgical technologist as it relates to those miscellaneous procedures. | 1. Procedures  
Excision of lipoma, lesions  
Incision and drainage  
Insertion of implanted infusion catheters/ports | Handout:  
Ports/catheters: Uses and Types | The student will demonstrate the proper method of preparation of a port for implantation. |
# Unit 2 Gastrointestinal Surgery

## Learner Objectives

Upon completion of this unit the student shall be able to:

1. Discuss the role of the surgical technologist as it relates to gastrointestinal surgical procedures.

## Content/Lecture Discussion

1. Gastrointestinal procedures.
   - Gastric Procedures
     - Gastrostomy
     - Gastroduodenostomy
     - Gastrojejunostomy
     - Total gastrectomy
     - Vagotomy
     - Pyloroplasty
     - Hiatal hernia repair
     - Laparoscopic Nissan
   - Small Bowel Procedures
     - Resection
     - Roux – en – Y jejunostomy
     - Ileostomy
   - Large Bowel Procedures
     - Laparoscopic appendectomy
     - Appendectomy
     - Colostomy
     - Subtotal colectomy
     - Sigmoid resection
     - Abdominoperineal resection
   - Anorectal Procedures
     - Hemorrhoidectomy
     - Pilonidal cystectomy
     - Fissure/fistula repair
     - Sphincterotomy
     - Rectal polypectomy
     - Anoplasty

## Related Learner Experiences

**WEEK 2**

- Reading Assignment:
  - Fuller P 434-476
  - Rutherford, *Differentiating Surgical Instruments*, Chapter 1
  - Ehrlich & Schroeder, *Medical Terminology for Health Professions*, Chapter 8

- Media Center:
  1. Intestinal and Gall Bladder Instruments

## Laboratory Objectives

The student will demonstrate:

1. GI technique
2. Loading stapling devices
<table>
<thead>
<tr>
<th>Learner Objectives</th>
<th>Biliary Surgery</th>
<th>Related Learner Experiences</th>
<th>Laboratory Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of this unit the student shall be able to:</td>
<td>1. Biliary Tract Procedures</td>
<td>WEEK 3</td>
<td>The student will:</td>
</tr>
<tr>
<td>1. Discuss the role of the surgical technologist as it relates to those procedures of the biliary system</td>
<td>ERCP</td>
<td>Reading Assignment:</td>
<td>1. Demonstrate the proper method for use of biliary catheters and laparoscopic</td>
</tr>
<tr>
<td></td>
<td>Cholecystectomy, open and laparoscopic</td>
<td>Fuller, P 477-500</td>
<td>instrumentation.</td>
</tr>
<tr>
<td></td>
<td>Cholangiogram</td>
<td>Rutherford, <em>Differentiating Surgical Instruments</em>, Chapter 1</td>
<td>2. Demonstrate the proper use of liver biopsy needles.</td>
</tr>
<tr>
<td></td>
<td>Common duct exploration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Choledochojejunostomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Choledochostomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liver biopsy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liver resection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laparoscopy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Discuss the role of the surgical technologist as it relates to those procedures of the biliary system</td>
<td>1. Pancreas and Splenic Procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Excision of pancreatic cyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pancreaticeoduodenectomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repair of splenic laceration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Splenectomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hepatic pump insertion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit 4</strong></td>
<td><strong>GYN/OB Surgery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Learner Objectives</strong></td>
<td><strong>Content/Lecture Discussion</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Upon completion of this unit the student shall be able to: 1. Discuss the role of the surgical technologist as it relates to those procedures in gynecology. | 1. Vaginal Procedures  
Dilation and curettage  
Bartholin cystectomy  
Cervical conization and biopsy  
Colposcopy  
Colporrhaphy/anterior-posterior Repair  
Vaginal hysterectomy  
Endometrial ablation  
Hysteroscopy  
Colposcopy  
Perineorrhaphy  
Vulvectomy  
Ablation of conhylomata  
Fistula repair  
Vaginoplasty  
2. Abdominal Procedures  
Laparoscopy  
Tubal ligation  
Tuboplasty  
Oophorectomy  
Salpingectomy  
Abdominal hysterectomy  
Myomectomy  
Laparoscopically assisted vaginal hysterectomy (LAVH)  
Wertheim Procedure |
| **Related Learner Experiences** | **Laboratory Objectives** |
| WEEK 4 | The student will:  
1. Demonstrate the use of uterine manipulator.  
2. Demonstrate the assembly of a uterine suction apparatus. |
| Reading Assignment: Fuller, P 509-550  
Rutherford, *Differentiating Surgical Instruments*, Chapter 2  
Ehrlich & Schroeder, *Medical Terminology for Health Professions*, Chapter 14 | Media Center:  
1. GYN Instruments |
| 1. Obstetric Procedures  
Ectopic pregnancy  
Cervical cerclage  
Uterine aspiration  
Episiotomy  
Caesarean sectoin |  

WEEK 4

Reading Assignment: Fuller, P 509-550

Rutherford, *Differentiating Surgical Instruments*, Chapter 2

Ehrlich & Schroeder, *Medical Terminology for Health Professions*, Chapter 14

Media Center:
1. GYN Instruments
<table>
<thead>
<tr>
<th>Unit 5</th>
<th>ENT SURGERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of this unit the student shall be able to: 1. Discuss the role of the surgical technologist as it relates to procedures of the ear, nose and throat.</td>
<td>1. Ear Procedures  Myringotomy  Myringoplasty  Mastoidectomy  Tympanoplasty  Stapedectomy  2. Nasal Procedures  Antrostomy  Sinusoscopy  Turbinectomy  Polypectomy  Submucous resection  Functional endoscopic sinus surgery (FESS)  3. Throat Procedures  Adenoidectomy  Tonsillectomy  Uvulopalatopharyngoplasty (UPP)  Vocal cord procedures  Micro laryngoscopy  Triple endoscopy</td>
</tr>
<tr>
<td></td>
<td>WEEK 5</td>
</tr>
<tr>
<td>Reading Assignment: Fuller P 627-679 Rutherford, Differentiating Surgical Instruments, Chapter 6 Ehrlich &amp; Schroeder, Medical Terminology for Health Professions, p 1930223; 320-349 Media Center: 1. ENT Instruments</td>
<td></td>
</tr>
<tr>
<td>Upon completion of this unit the student shall be able to: 1. Discuss the role of the surgical technologist as it relates to procedures of the head and neck</td>
<td>Head and Neck Procedures  Glossectomy  Laryngectomy  Mandibulectomy  Parotidectomy  Radical neck dissection  Salivary duct stone extraction  Parathyroidectomy  Thyroidectomy  Thyroglossal cystectomy  Tracheostomy</td>
</tr>
</tbody>
</table>
| | Reading Assignment: Rutherford, Differentiating Surgical Instruments, Chapter 9

The student will: 1. Demonstrate the preparation and use of a tonsil snare.
Upon completion of this unit the student shall be able to:
1. Discuss the role of the surgical technologist as it relates to oral and maxillofacial surgery.

<table>
<thead>
<tr>
<th>Caldwell Luc</th>
<th>LeFort I, II, III</th>
<th>Dental Procedures</th>
<th>Extraction</th>
<th>Restoration</th>
<th>Implantation</th>
<th>Maxillofacial Procedures</th>
<th>Maxillofacial fractures</th>
<th>Orbital Fractures</th>
<th>Craniofacial reconstruction</th>
<th>Temporomandibulary Joint</th>
<th>Procedures</th>
<th>Odontectomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 6</td>
<td>Urological Surgery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Learner Objectives</strong></td>
<td><strong>Content/Lecture Discussion</strong></td>
<td><strong>Related Learner Experiences</strong></td>
<td><strong>Laboratory Objectives</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Upon completion of this unit the student shall be able to: 1. Discuss the role of the surgical technologist as it relates to those procedures of the Genitourinary System. | 1. Kidney  
Adrenalectomy  
Nephroscopy  
Nephrostomy  
Nephrectomy  
Nephrolithotomy  
Pyeloureteroplasty  
Pyelolithotomy  
Extracorporeal shock wave lithotripsy (ESWL)  
| **WEEK 6**  
Reading Assignment:  
Fuller P 627-679  
Rutherford, *Differentiating Surgical Instruments*, Chapter 3  
Ehrlich & Schroeder, *Medical Terminology for Health Professions*, Chapter 9  
Media Center:  
1. GU Instruments | The student will:  
1. Demonstrate the uses of various catheters used in urological surgery.  
2. Demonstrate the proper assembly of endoscopic equipment.  
3. Demonstrate the proper insertion of a urinary catheter. |
| Ureteral Procedures  
Ureteroscopy  
Ureterostomy  
Ureterolithotomy  
Ureteral reimplantation | Bladder and Urethral Procedures  
Cystoscopy  
Urethroscopy  
Suprapubic cystotomy  
Percutaneous stone extraction  
Cystourethropexy/bladder suspension  
Ileal conduit  
Urethral dilatation  
Urethral meatotomy  
Cystectomy  
Marshall Marchetti | | |
<table>
<thead>
<tr>
<th>Male Reproduction System Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circumcision</td>
</tr>
<tr>
<td>Hydospadias repair</td>
</tr>
<tr>
<td>Chordee release</td>
</tr>
<tr>
<td>Orchiopexy</td>
</tr>
<tr>
<td>Hydrocelectomy/varicocelectomy</td>
</tr>
<tr>
<td>Vasectomy</td>
</tr>
<tr>
<td>Testicular torsion repair</td>
</tr>
<tr>
<td>Orchiectomy</td>
</tr>
<tr>
<td>Prostatectomy</td>
</tr>
<tr>
<td>TURP</td>
</tr>
<tr>
<td>Suprapubic</td>
</tr>
<tr>
<td>Retropubic</td>
</tr>
<tr>
<td>Perineal</td>
</tr>
<tr>
<td>Prostate seeding</td>
</tr>
<tr>
<td>Penile implant</td>
</tr>
<tr>
<td>Vasocasotomy</td>
</tr>
</tbody>
</table>