

**El Paso Community College**  
**Syllabus**  
**Part II**  
**Official Course Description**

<b>SUBJECT AREA</b>	<u>Surgical Technology</u>								
<b>COURSE RUBRIC AND NUMBER</b>	<u>SRGT 1542</u>								
<b>COURSE TITLE</b>	<u>Surgical Procedures II</u>								
<b>COURSE CREDIT HOURS</b>	<table border="0" style="margin: auto;"> <tr> <td style="padding: 0 10px;">5</td> <td style="padding: 0 10px;">4</td> <td style="padding: 0 10px;">:</td> <td style="padding: 0 10px;">4</td> </tr> <tr> <td style="padding: 0 10px;">Credits</td> <td style="padding: 0 10px;">Lec</td> <td></td> <td style="padding: 0 10px;">Lab</td> </tr> </table>	5	4	:	4	Credits	Lec		Lab
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Credits	Lec		Lab						

**I. Catalog Description**

Introduces surgical procedures and related pathologies with emphasis on surgical procedures related to cardiothoracic, peripheral vascular, plastic/reconstructive, ophthalmology, oral/maxillofacial, and neurological surgical specialties incorporating instruments, equipment, and supplies. A grade of “C” or better is required in this course to take the next course. **Prerequisites: SRGT 1244 and SRGT 1541, and SRGT 2560. Corequisite: SRGT 2561. (4:4). Lab fee.**

**II. Course Objectives**

Upon satisfactory completion of this course, the student will be able to:

- A. Unit I: Ophthalmic Surgery
  - 1. Describe the anatomical structure of the eye.
  - 2. Describe the pathology that prompts surgical intervention and the related terminology.
  - 3. Describe diagnostic studies
  - 4. Describe the intraoperative preparation of the ophthalmic surgical patient including special features/needs, instruments, equipment, supplies, pharmacologic and hemostatic agents utilized during surgery.
  - 5. Describe surgical procedures utilized to correct extra-ocular and intra-ocular pathology.
    - a. Chalazion Excision
    - b. Dacryocystorhinostomy
    - c. Entropion/Ectropion repair
    - d. Enucleation
    - e. Extracapsular Cataract Extraction
    - f. Iridectomy
    - g. Keratoplasty
    - h. Laceration Repairs
    - i. Scleral Buckle,
    - j. Strabismus Correction
    - k. Recession/Resection
    - l. Vitrectomy
  - 6. Discuss possible complications of ophthalmic surgery.
  - 7. Review specific procedural steps as a guide for clinical considerations
  - 8. Apply broad ophthalmic surgical concepts and knowledge to clinical practice for enhanced surgical patient care.
- B. Unit II: Peripheral Vascular Surgery
  - 1. Identify the anatomy and physiology of the vascular system.
  - 2. Describe the pathology and related terminology of the peripheral vascular system that prompts surgical intervention.

3. Describe noninvasive and invasive diagnostic studies.
4. Describe the intraoperative preparation of the vascular patient including special features/needs, equipment, supplies, pharmacologic and hemostatic agents required for surgical intervention.
5. Describe common vascular procedures.
  - a. Abdominal Aortic Aneurysm w/ Graft Insertion
  - b. Angioplasty – Endograft Placement
  - c. Angioplasty – Endostent Insertion
  - d. Angioscopy
  - e. AV Shunts /Bypass
    1. Aortofemoral Bypass
    2. Arteriovenous Fistula/Shunt
    3. Femoropopliteal Bypass,
  - f. Carotid Endarterectomy
  - g. Embolectomy
  - h. Vena Cava Device
  - i. Vein Ligation/Stripping
  - j. Venous Access Device
6. Review specific procedural steps as a guide for clinical considerations
7. Discuss possible intra-operative/post-operative surgical complications.
8. Apply broad vascular surgical concepts and knowledge to clinical practice for enhanced surgical patient care.

C. Unit III: Plastic and Reconstructive Surgery

1. Identify pertinent anatomy of the skin and its underlying tissues.
2. Describe the pathology that prompts plastic/reconstructive surgical intervention and the related terminology.
3. Describe the intra-operative preparation of the plastic/reconstructive patient including special features, equipment and supplies required for surgical intervention.
4. Identify grafts, implants, and prostheses relevant to plastic and reconstructive surgery
5. Describe common surgical procedures.
  - a. Blepharoplasty
  - b. Brow Lift
  - c. Cheiloplasty/Palatoplasty
  - d. Malar Implants
  - e. Mentoplasty
  - f. Otoplasty
  - g. Rhinoplasty
  - h. Rhytidectomy
  - i. Breast Augmentation
  - j. Mastopexy,
  - k. Mammoplasty
  - l. Nipple reconstruction
  - m. TRAM Flap
  - n. Abdominoplasty
  - o. Suction Lipectomy
  - p. Excision Superficial Lesion/Neoplasm
  - q. Skin Graft – Full-Thickness, Split -Thickness
  - r. Microvascular Pedicle Graft
  - s. Scar Revision
  - t. Dupuytren's Contracture
  - u. Traumatic Injury Repairs
  - v. Radial Dysplasia
  - w. Release of Polydactyl/yndactly
6. Discuss possible intra-operative/ post-operative complications.
7. Review specific procedural steps as a guide for clinical considerations.
8. Apply broad plastic/reconstructive surgical concepts and knowledge to clinical practice for enhanced surgical patient care.

Unit IV Oral and Maxillofacial Surgery

1. Identify the pertinent anatomy of the oral cavity
2. Describe the pathology that prompts oral surgery
3. Discuss special preoperative diagnostic studies.
4. Determine special preoperative preparation for the oral surgery patient
5. Recognize the instruments, special supplies equipment and drugs.
6. Describe the following surgical procedures:
  - a. Maxillary/Mandibular Fractures
    - i. ORIF
    - ii. Application of Arch bars
    - iii. Maxillary Fractures
      1. Le Fort I, II,III
  7. ORIF Orbital Fracture
  8. Odontectomy/Tooth Extraction

D. Unit IV: Neurosurgery

1. Identify the pertinent anatomy of the nervous system.
2. Describe the pathology that prompts surgical intervention of the nervous system and the related terminology.
3. Discuss special preoperative diagnostic procedures/tests.
4. Recognize instruments, equipment, drugs and supplies.
5. Describe the intraoperative preparation of the neuro surgical patient including special features/needs, instruments, equipment, and supplies.
6. Describe neurosurgical procedures.
  - a. Craniotomy
    1. Aneurysm Repair
    2. Cranioplasty
    3. Craniostomy repair
  - b. Rhizotomy
  - c. Stereotactic Procedures,
  - d. Transphenoidal Hypophysectomy
  - e. Ulnar Nerve Transposition
  - f. Ventriculoperitoneal Placement
  - g. Ventriculoscopy
  - h. Carpal Tunnel Release
  - i. Laminectomy
    1. Cervical,
    2. Anterior/Posterior Laminectomy
    3. Thoracic
    4. Lumbar – Minimally Invasive
    5. Lumbar
  - j. Spinal Fusion
7. Sequence steps for opening and closing a craniotomy.
8. Discuss possible intra-operative/post-operative complications.
9. Review specific procedural steps as a guide for clinical considerations
10. Apply broad neurosurgical concepts and knowledge to clinical practice for enhanced surgical patient care.

E. Unit V: Thoracic Surgery

1. Identify relevant anatomy of the thoracic cavity.
2. Describe the pathology that prompts thoracic surgical intervention and related terminology.
3. Discuss diagnostic methods
4. Describe the intra-operative preparation of the thoracic surgical patient including special features/needs, instruments, equipment, supplies, pharmacologic and hemostatic agents used in open and endoscopic thoracic procedures.
5. Identify modes of thoracic access and incisional approaches.
6. Describe common thoracic surgical procedures.
  - a. Bronchoscopy
  - b. Mediastinoscopy
  - c. Lymph Node Biopsy

- d. Thoracoscopy – Video-assisted
- e. Thoracotomy
  - 1. Lobectomy
  - 2. Pneumonectomy
  - 3. Decortication of the Lung
  - 4. Lung Transplant
- f. Pectus Excavatum Repair
- g. Pulmonary Embolism

- 7. Identify tissue layers involved in opening and closing thoracic incision
- 8. Discuss possible intra and postoperative complications.
- 9. Apply broad thoracic surgical concepts and knowledge to clinical practice for enhanced surgical care

F. Unit VI: Cardiac Surgery

- 1. Identify the relevant anatomy of the heart and great vessels.
- 2. Describe the pathology that prompts surgical intervention and related terminology.
- 3. Describe noninvasive and invasive diagnostic studies.  
Describe the intraoperative preparation of the cardiac surgical patient including the special features/considerations, equipment, instruments, pharmacologic and hemostatic agents used during open and minimally invasive cardiac surgery
- 4. Identify commonly used incisions for cardiac surgery.
- 5. Describe cardiopulmonary bypass and its system components.
- 6. Describe methods of myocardial preservation.
- 7. Describe common cardiac procedures.
  - a. Aortic/Mitral Valve Replacements
  - b. Atrial/Ventricular Septal Defect Repairs
  - c. Closure of a Patent Ductus Arteriosus
  - d. Coronary Artery By-Pass Graft
  - e. Ventricular Assist Device
  - f. Heart Transplant
  - g. Repair of Coarctation of the Aorta
  - h. Repair of Tetralogy of Fallot
  - i. Ventricular Aneurysm repair
- 8. Identify mechanical assist devices.
- 9. Discuss intra/postoperative surgical complications.
- 10. Apply broad cardiac surgical concepts and knowledge to clinical practice for enhance surgical patient care.

**III. THECB Learning Outcomes (WECM)**

- 1. Relate anatomy and pathology for selected procedures.
- 2. Demonstrate patient preparation.
- 3. Utilize instruments, equipment, and supplies.
- 4. Demonstrate case management skills.
- 5. Identify outcomes and possible complications for selected procedures.

**IV. Evaluation**

- A. Preassessment  
The student must have completed SRGT 1244, SRGT 1541 and SRGT 2460 with a minimum of 77%.
- B. Postassessment
  - 1. Written examinations will be administered at the completion of each unit of instruction.
  - 2. Quizzes may be administered without prior announcement.
  - 3. Assignments will be completed in the Anatomy Coloring Book. and Study Guide /Lab Manual
  - 4. A comprehensive final exam will be administered at the end of the course.

5. It is recommended that the student sit for the Surgical Technology National Certifying Examination. It will administered at the end of course completion. It is required in order to be employed as a surgical technologist in the state of Texas.

C. Remediation

The instructor will provide individual procedures for students needing remediation after an individual conference has been scheduled. Such procedures may include, but are not limited to tutorial assistance, supplementary assignments, etc.

D. Grading

1. All unit exams will be weighted equally.
2. Quizzes will be weighted and computed as a unit exam.
3. All unit exams will be averaged together and computed as 75% of the final grade.
4. Assignment sheets and assignments in the Anatomy Coloring Book and Study Guide /Lab Manual will be computed as 5% of the final grade.
5. The comprehensive final exam will be computed as 20% of the final grade.
6. The National Certifying Examination is not considered in final grade determination.
7. Grading Scale
  - A = 93 - 100
  - B = 85 - 92
  - C = 77 - 84
  - D = 70 - 76
8. All grades are rounded.
9. SRGT 1542 must be completed with minimum of 77%. and completion of the National Certifying Examination.

**V. Disability Statement (Americans with/Disabilities Act [ADA])**

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

**VI. 6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.