

# SURG 7535 Syllabus Cardiothoracic Surgery

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## Contact Information

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## Course Information

### Brief Description of Course

The 2-week Introduction to Cardiothoracic Surgery course is intended to provide students with a broad introduction to the specialty, basic knowledge and skills development in the area of history taking, physical exam, clinical reasoning, procedures, and foundational pathophysiology and pharmacology for core diagnoses and presentations of the specialty. Students will be assigned to preceptor(s) and should take initiative to interact directly with patients at a clinical curriculum medical student level.

Student will be assigned to the Adult Cardiac or General Thoracic Surgery Service.

Student may indicate preference.

### Course Goals

As a result of successfully completing SURG 7535, students will be able to:

1. Obtain an appropriately focused history from cardiothoracic surgery patients presenting with core chief complaints/diagnoses.
2. Perform an appropriately focused physical examination on cardiothoracic surgery patients presenting with core chief complaints/diagnoses.
3. Suggest a basic differential diagnosis and/or recommend basic therapy for cardiothoracic surgery patients presenting with core chief complaints/diagnoses.
4. Demonstrate understanding of foundational pathophysiology and pharmacology in the care of cardiothoracic surgery patients presenting with core chief complaints/diagnoses.

## Objectives

### Cardiac Surgery

1. To develop a working knowledge of the pathophysiology and clinical presentation of coronary artery disease. This includes the evaluation of patients with coronary artery disease, including acute myocardial infarction, and the indications and rationale for coronary artery bypass surgery.
2. To understand the pathophysiology, clinical presentation, and indications for surgery in acquired aortic and mitral valve disease.
3. To be familiar with the basic principles of cardiopulmonary bypass.
4. To be familiar with the indications for cardiac surgery; coronary artery bypass grafting and valvular operations.
5. Follow assigned patient(s) from operating room through discharge.
6. Attend Cardiothoracic Surgery Clinic with one faculty member-usually on Monday or Tuesday.

Or

### Thoracic Surgery

1. Able to describe the appropriate evaluation of a patient chest X-ray.
2. Able to clinically stage a patient with lung cancer. Identify lung nodule on the chest X-ray and to discuss the indications for needle biopsy, bronchoscopy, and mediastinoscopy.
3. To observe and be able to describe the surgical therapy of lung cancer.

4. To describe the diseases of the pleural space including pneumothorax, hemothorax, and empyema. To know the indications for thoracostomy tube drainage. To understand the mechanics and daily maintenance of chest tube drainage and to be able to determine when a chest tube can be removed.
5. To have a basic knowledge of the indications for lung transplantation.

## Course Format & Schedule

### Schedule

Monday through Sunday, 07:00-06:59. Student will be assigned to work with clinicians on a day to day basis and can expect a combination of day, night, and weekend assignments of 10-12 hours duration. Students should anticipate working 50-70 hours per week during this rotation.

### Educational and Instructional Modalities

Modality	Percentage
Didactic	10%
Clinic Time	90%

The rotation is carried out at University and Huntsman Cancer Hospitals, and is designed to totally immerse the student in all activities of the cardiothoracic service, including outpatient clinics, inpatient units, and surgery. In addition, participation in the didactic sessions designed for fellows is required.

### Role of the Student in this Course

**Outpatient Clinics:** Students are expected to see clinic patients with and/or prior to the preceptor. For each patient visit the student should obtain a relevant history, perform a pertinent physical examination, retrieve clinical information from the electronic medical record and other sources, present the patient to the clinic preceptor, finalize the visit with the preceptor and patient, discuss further orders/diagnostic testing/therapy/prescriptions with the preceptor, and enter an encounter note in the student section of the electronic health record.

**Inpatient Service:** Students are expected to follow a maximum of 3 patients at a time. For each new patient the student should obtain an admission history and physical examination, retrieve clinical information from the electronic medical record and other sources, present the patient to the supervising resident and preceptor, finalize the admission plans with the supervising resident or preceptor and patient, and discuss admission orders/diagnostic testing/therapy with the resident/preceptor. Students are expected to enter the admission History and Physical in the student section of the EMR. Each day the student should pre-round on his/her panel of patients (i.e. gather interval history and data, perform a focused physical examination, present the patient during rounds, enter new orders, and construct a daily progress note).

**Operating Room:** For operating room cases, students are expected to have read relevant information about the patient and surgical procedure, introduced themselves to the patient, and discussed their anticipated role with the resident and/or attending surgeon.

### Recommended Readings

Links to articles are on the Canvas Course

1. Manual of Perioperative Care in Adult Cardiac Surgery.
  1. Chapter 1-Synopsis of Adult Cardiac Surgical Disease, pages 1-120
2. Percutaneous coronary intervention in-stable angina (ORBITA): a double-blind, randomized controlled trial Lancet 2018; 391: 31-40
3. Is Coronary Artery Bypass Grafting Currently Underutilized? <http://circ.ahajournals.org>
4. Coronary-Artery Bypass Grafting, The New England Journal of Medicine, 2016;374:1954-64
5. Guidelines for Management of Incidental Pulmonary Nodules Detected on CT Images: From the Fleischner Society 2017, radiology.rsna.org, Volume 284: Number 1-July 2017
6. The Registry of the International Society for Heart and Lung Transplantation: Thirty-third Adult Lung and Heart-Lung Transplant Report-2016; focus Theme: Primary Diagnostic Indications for Transplant. The Journal of Heart and Lung Transplantation, Vol. 35, No. 10, October 2016
7. The Registry of the International Society for Heart and Lung Transplantation: Thirty-third Adult Heart Transplantation Report-2016; Focus Theme: Primary Diagnostic Indications for Transplant. The Journal of Heart and Lung Transplantation, vol. 25, No. 10, October 2016
8. Mechanical Circulatory Support Devices-In Progress. N Engl J Med 376;5, February 2, 2017

9. Intrapericardial Left Ventricular Assist Device for Advanced Heart Failure. N Engl Med 2017; 376:451-60

### Additional Resources

<https://www.sts.org/resources/clinical-practice-credentialing-and-reporting-guidelines>

## Assessment & Grading

### Preceptor Evaluations

All Clinical Courses employ a common preceptor evaluation form that instructs evaluators to select performance-based behaviors along multiple dimensions that best represent the student's highest sustained performance during the preceptor's period of observation.

### Assessments

Assessment Name	Weight toward Final Grade
Preceptor Evaluations	90%
Active Participation in Didactics	10%

### Grading System

Students will receive a final letter grade of PASS (P), or FAIL (F) for this course.

**PASS:** A student who achieves the criteria, will be assigned a grade of PASS for the course.

**FAIL:** A student who fails to achieve the criteria for PASS, will be assigned a grade of FAIL for the course.

## Student Feedback

Student feedback is an important aspect of curriculum quality improvement. Thus, students are expected to complete all assigned feedback surveys specific to a course by the due date.

## Standard Policies

Please refer to the Student Handbook (on the Student Affairs website) for these policies:

- Accommodations**
- Addressing Sexual Misconduct**
- Attendance policy**
- Dress Code**
- Examination and Grading Policies**
- Grade or Score Appeal**
- Professionalism, Roles & Responsibilities**
- Mistreatment**

## Alternate Name and/or Personal Pronoun

Class rosters are provided to the instructor with the student's legal name as well as 'Preferred' first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, we will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise us of any name or pronoun changes (and please update CIS) so we can help create a learning environment in which you, your name, and your pronoun will be respected.

## Center for Disability & Access Services

The School of Medicine seeks to provide equal access to its programs, services and activities for all medical students. The Center for Disability and Access (CDA) provides accommodations and support for the educational development of medical students with disabilities. Medical students with a documented disability and students seeking to establish the existence of a disability and to request accommodation are required to meet with the CDA Director for recommended

accommodations. The CDA will work closely with eligible students and the Academic Success Program to plan for approved accommodations. The School of Medicine and CDA maintain a collegial, cooperative, and collaborative relationship to ensure compliance with federal and state regulations for students with disabilities.

Steven Baumann EdD, School of Medicine Senior Director of Academic Success Program, serves as the liaison between the School of Medicine and the CDA.

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<http://disability.utah.edu>