

Non-Clinical CT Curriculum
2020-2021
6:30-8:30 am

Date		Title	Basic Objectives	Advanced Objectives				
	Topics	Core ABTS Curriculum Topic	Basic Level Content	Advanced Level Content	Suggested Readings	Pre Quiz	Post Quiz	Faculty
8/17/2020 Week 1	CV 01	Cardiac Surgery General Management I	Cardiac Anatomy Cardiac Physiology	Advanced Anatomy Advanced Physiology	Chon's: Chapters 2, 3	Cardiac Surgery General Management Benchmark quiz		Bobovnikov
	CV 02	Cardiac Surgery General Management II	Cardiovascular pharmacology, Microbiology	Pathology				
8/24/2020 Week 2	CV 03	Cardiac Surgery General Management III	Diagnosis, evaluation and treatment Risk assessment Cardiopulmonary resuscitation	Risk assessment guidelines Cardiac Rehabilitation	Chon's: Chapters 9, 16			Eisenberg
	CV 04	Cardiac Surgery General Management IV	management of complications of cardiac surgery cardiac tamponade postoperative management	wound infection/sternal disruption				
8/31/2020 Week 3	CV 05	Cardiopulmonary bypass/myocardial protection/circulatory support I	Introduction to CPB	Pathophysiology of CPB	Chon's: Chapters 12, 15	Cardio Bypass/Myocardial Protection/Circulatory Support Benchmark quiz	Cardiac Surgery General Management Benchmark quiz	Jaime Vilela
	CV 06	Cardiopulmonary bypass/myocardial protection/circulatory support II	Myocardial Protection IABP	Management of Coagulopathy / HIT				
09/07/2020 Week 4	Labor Day							
09/14/2020 Week 5	TS01	Thoracic Surgery General Management I	Lung anatomy	Imaging of the Lungs	Pearson: Chapters 2, 35	Thoracic Surgery General Management Benchmark quiz	Cardio Bypass/Myocardial Protection/Circulatory Support Benchmark quiz	Rajaram
	TS02	Thoracic Surgery General Management II	Pulmonary Physiology Testing	Risk Assessment				
9/21/2020 Week 6	Coronary Bypass Simulation							
09/28/2020 Week 7	TS03	Thoracic Surgery General Management III	Anesthesia/Pain Management	Thoracic Incisions	Pearson: Chapters 13, 14			Mehran
	TS04	Thoracic Surgery General Management IV	Post-operative Care of the Thoracic Surgery Patient	Early and Late Postop Complications				

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10/05/2020 Week 8	TS05	Neoplasm of the lung I	Benign and Malignant tumors Epidemiology and genetics signatures presentation	Lung Cancer Screening	Pearson: Chapter 57, Biology & Epidemiology Lung CA screening Version 1.2015 NCCN Guidelines	Neoplasm of the Lung Benchmark quiz	Thoracic Surgery General Management Benchmark quiz	Walsh
	TS06	Neoplasm of the lung II	Stage I Staging including all staging tools Stage I survival and recurrence patterns	Stage I treatment and multimodality Non-resectional techniques	Pearson: Ch 60 Pearson: Ch 61, pgs 765-772			
10/12/2020 Week 9	TS 07	Neoplasm of the lung III	Stage II Staging including all staging tools Stage II survival and recurrence patterns	Stage II treatment and multimodality Non-resectional techniques	Pearson: Chapter 61, pgs 772-778 European Jnl of Cardiothoracic Surgery, Revised ESTS Guidelines for Pre-op Mediastinal			Rice
	TS 08	Neoplasm of the lung IV	Stage III Staging including all staging tools Stage III survival and recurrence patterns	Stage III treatment and multimodality Non-resectional techniques				
10/19/2020 Week 10	TS 09	Neoplasm of the lung V	Stage IV Staging including all staging tools Stage IV survival and recurrence patterns	Stage IV treatment and multimodality Non-resectional techniques surgical palliation	Pearson: Chapter 65 Pearson: Chapter 69			Sepesi
	TS 10	Neoplasm of the lung VI	Secondary and metastatic neoplasm of the lung	Secondary and metastatic neoplasms: outcomes, treatment				
10/26/2020 Week 11	CV 07	Ischemic Heart Disease I	Diagnosis, investigation of IHD Cardiac Imaging	Management guidelines	John Hopkins Manual of Cardiac Surgical Care: Chapter 3	Ischemic Heart Disease Benchmark quiz	Neoplasm of the Lung Benchmark quiz	Konstantinos Charitakis
	CV 08	Ischemic Heart Disease II	Role of PCI, hybrid approaches and non-operative treatment	Combined coronary / carotid disease	2015 AHA/ACC Guidelines for the management of Patients with Non-ST			
11/02/2020 Week 12	CV 09	Ischemic Heart Disease III	Surgical revascularization On / off pump Approaches	Role of TMR, Repeat revascularization	Cohn's:			Bobovnikov
	CV 10	11	Complications of IHD / MI Presentation / Diagnosis / Treatment	Treatment options for complications of IHD / MI				

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11/09/2020 Week 13	Valve Simulation Lab							
11/16/2020 Week 14	TS 11	Benign Lung Conditions I	Bronchiectasis (knowledge)	Bronchiectasis (patient care)	Pearson: Chapter 41 Pearson: Chapter 43 Pearson: Chapter 44	Benign Lung Condition Benchmark quiz	Ischemic Heart Disease Benchmark quiz	Hofstetter
			Bacterial Infection (general overview)	Bacterial Infection (nosocomial infection, community acquired)				
11/23/2020 Week 15	TS 12	Benign Lung Conditions II	Tuberculosis and atypical mycobacteria (knowledge)	Tuberculosis and atypical mycobacteria (patient care)	Pearson: Chapter 45			Mehran
			Mycotic infection (knowledge)	Mycotic infection (patient care)				
11/30/2020 Week 16	TS 13	Benign Lung Conditions III	Parasitic Disease (knowledge)	Parasitic Disease (patient care)	Pearson: Chapter 46, The National Emphesema Treatment Trial (NETT) Part 2 - Lessons Learned			
			hemoptysis	Parasitic Disease (patient care)				
	TS 14	Benign Lung Conditions IV	Emphysema and Bullae (etiology and pathophysiology, indications for bullectomy)	Emphysema and Bullae (Nett trial part 1 and 2, pulmonary rehab)				
11/30/2020 Week 16	ORAL BOARDS							
12/7/2020 Week 17	CV 11	Heart Valve Disease I	Aortic valve anatomy and physiology	Results of Surgery (AS)	See Learn CT Surgery	Heart Valve Disease Benchmark quiz	Benign Lung Condition Benchmark quiz	Nguyen
			AS pathophysiology	Guidelines (AS)				
	CV 12	Heart Valve Disease II	Diagnosis/assessment indications for operative management (AI)	Guidelines (AI)				
			AI pathophysiology	Results of Surgery (AI)				
			Diagnosis/assessment	Guidelines (AI)				
			Indications for operative management (AI)					
12/14/2020	CV 13A	Heart Valve Disease III	Mitral valve anatomy physiology	Guidelines (MR)				

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Week 18			MR pathophysiology/natural history Diagnosis and assessment Indications for operative management (MR)	Treatment of Degenerative MR Results of Surgery (MR) Percutaneous Treatment	Learn CT Surgery			Abreu
	CV 13B	Heart Valve Disease III	Ischemic MR	Operative Treatment Ischemic MR Results of Surgery Ischemic MR				
	CV 14	Heart Valve Disease IV	MS pathophysiology/natural history Diagnosis and assessment Indications for operative management (MS)	Results of Surgery (MS) Guidelines (MS)				
12/21/2020 Week 19	CV 15	Heart Valve Disease V	Tricuspid valve anatomy and physiology Pulmonary valve Diagnosis and assessment Indications for operative management (TV)	Results of Surgery (TV) Guidelines (TV)	Learn CT Surgery			Abreu
	CV 16	Heart Valve Disease VI	Endocarditis general indications Antibiotics/prophylaxis	Operative timing, Prosthetic Valve Endocarditis Endocarditis Guidelines				
12/28/2020 Week 20	CV!17	Heart Valve Disease VII	TAVR	TAVR Guidelines	Learn CT Surgery			Prakash Balan

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1/4/2021	TS 15	Disorders of the pleura I	anatomy and pathophysiology of the pleura	hyperhydrosis	Pearson's e-book ch 82 STS Consensus on Hyperhydrosis (AnnThoracSurg)	Disorders of the Pleura Benchmark quiz	Heart Valve Disease Benchmark quiz	Sepesi	
Week 21	TS 16	Disorders of the pleura II	Mesothelioma and fibrous tumors	Mesothelioma and fibrous tumors	Pearson's e-book chapter 91				
1/11/2020	TS 17	Disorders of the pleura III	lung abscess and empyema (knowledge)	lung abscess and empyema (patient care)	Pearson's e-book chapter 86			Swisher	
Week 22	TS 18	Disorders of the pleura IV	pleural effusions (general information and benign)	pleural effusions (malignant)	Pearson's chapter 85				
01/18/2021 Week 23	Marthin Luther King								
1/25/2021	TS 17	Disorders of the pleura III	lung abscess and empyema (knowledge)	lung abscess and empyema (patient care)	Pearson's e-book chapter 86			Walsh	
Week 24	TS 18	Disorders of the pleura IV	pleural effusions (general information and benign)	pleural effusions (malignant)	Pearson's chapter 85				
2/1/2020 Week 25	STS Annual Meeting - January 30-February 2, 2021								
2/1/2021 Week 26	CV 18	Great Vessel Disease I	General overview Vascular pathology Natural history	Imaging interpretation	Learn CT Surgery	Great Vessel Disease Benchmark quiz	Disorders of the Pleura Benchmark quiz	Estrera	
	CV 19	Great Vessel Disease II	Management of Ascending Aneurysms Arch Aneurysms	Aortic Dissection Operative Technique					

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			Indications for surgery/risk assessment	Neurologic Injury				
02/08/2021 Week 27	Aorta/Aortic Simulation Lab							
02/15/2021 Week 28	President's Day							
2/22/2021	CV 20	Great Vessel Disease III	Management of Descending and Thoracoabdominal Aneurysms	Endovascular Treatment	Learn CT Surgery			Estrera
Week 29	CV 21	Great Vessel Disease IV	Acute Thromboembolic disease	Chronic Thromboembolic Disease Imaging in Thromboembolic Disease				
3/1/2021	TS 19	Disorders of the chest wall I	anatomy (basic) diagnosis and imaging of the chest wall (basic)	Anatomy (advanced) diagnosis and imaging of the chest wall: (advanced)	>Anatomy of ribs/sternum (ThorSurgClin) >Pearsons Chapter 99	Disorders of the Chestwall Benchmark quiz	Great Vessle Disease Benchmark quiz	Rice
Week 30	TS 20	Disorders of the chest wall II	Chest wall tumor (knowledge, patient care)	chest wall resection and reconstruction and outcomes Inflammatory and infectious conditions	>Soft tissue (ThorSurgClin) >Osseous tumors (ThorSurgClin) >Pearsons Chapter 102			
03/08/2021 Week 31	TS 21	8 Thoracic Outlet syndrome		Congenital and Pectus Deformity	>Pearsons chapter 111			Sepesi
3/15/2021	CV 22	Cardiac Conduction System Disorders I	Anatomy of conduction pathways Atrial conduction disorders	Surgical treatment of atrial fibrillation	Learn CT Surgery	Cardiac Conduction System Benchmark quiz	Disorders of the Chestwall Benchmark quiz	Eisenberg
Week 32	CV 23	Cardiac Conduction System Disorders II	Pacemakers and AICD	Complications of pacemakers and AICD				

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03/22/2021 Week 32	AFIB Simulation Lab								
03/29/2021 Week 33	CV 24	Diseases of the Pericardium and Myocardium I	Pathophysiology (tamponade, constrictive, restrictive) Diagnosis and imaging	Pericardial disease patient management	Learn CT Surgery	Diseases of the Pericardium and Myocardium Benchmark quiz	Cardiac Conduction System Benchmark quiz	Eisenberg	
	CV 25	Diseases of the Pericardium and Myocardium II	cardiac tumor knowledge	cardiac tumor management/technical skills					
04/05/2021 Week 34	CV 26	Diseases of the Pericardium and Myocardium III	HOCM knowledge	HOCM management/technical skills	Learn CT Surgery			Manish Patel	
04/12/2021 Week 35	TS 23	Disorders of the mediastinum I	mediastinal general knowledge	mediastinal infections	Acute Necrotizing Mediastinitis (Pearsons Ch 125) Chronic Mediastinitis (Pearsons Ch 126)	Disorders of the Mediastinum Benchmark quiz	Diseases of the Pericardium and Myocardium Benchmark quiz	Mehran	
	TS 24	Disorders of the mediastinum II	Diagnosis/assessment Lymphoma	Germ cell tumors	Germ Cell Tumors (Pearsons Ch 132) Lymphoma (Pearsons Ch 133) <i>read the initial sections on "Biopsy Techniques and Specimen"</i>				
4/19/2021	TS 25	Disorders of the mediastinum III	mediastinal cysts	misc mediastinal tumor	mediastinal cysts and duplications (Pearsons Ch 128)			Rajaram	

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Week 36				neurogenic tumors	(Pearsons Ch 130) Neurogenic tumors (Pearsons Ch 134) Thymic Tumors (Pearsons Ch 131) Surgery for MG (Pearsons Ch 128)			
	TS 26	Disorders of the mediastinum IV	Thymic knowledge	Thymic tumors patient management/clinical skills				
4/26/2021 Week 37	TS 25	Disorders of the mediastinum III	mediastinal cysts	misc mediastinal tumor	mediastinal cysts and duplications (Pearsons Ch 130) Neurogenic tumors (Pearsons Ch 134) Thymic Tumors (Pearsons Ch 131) Surgery for MG (Pearsons Ch 128)			Rice
	TS 26	Disorders of the mediastinum IV	Thymic knowledge	Thymic tumors patient management/clinical skills	neurogenic tumors			
5/3/2021	CV 27	Heart Failure and Cardiac Transplant I	Diagnosis and management of heart failure Non transplant surgical options	Guidelines, Operative Techniques	Learn CT Surgery	Heart Failure and Cardiac Transplant Benchmark quiz	Disorders of the Mediastinum Benchmark quiz	Keshava Rajagopal
Week 38	CV 28	Heart Failure and Cardiac Transplant II	General information (devices)	General Information (outcomes)				
5/10/2021								Keshava Rajagopal
Week 39	CV 29	Heart Failure and Cardiac Transplant III	LVAD knowledge Adult ECMO	LVAD management/clinical skills	Learn CT Surgery			

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	CV 30	Heart Failure and Cardiac Transplant IV	Transplant knowledge	Transplant knowldge				
5/17/2021	CV 31	Cardiothoracic trauma I	general management of Cardiothoracic Trauma aortic and cardiac injury knowledge	aortic injury patient management cardiac injury patient management	Learn CT Surgery	Cardiothoracic Trauma Benchmark quiz	Heart Failure and Cardiac Transplant Benchmark quiz	
5/24/2021 Week 40	CV 32	Cardiothoracic trauma II	chest wall and pulmonary injury knowledge diaphragm injury knowledge	chest wall and pulmonary injury management diaphragm injury management	*Flail chest and Pul Contusion (Seminars) *Management of blunt chest and diaphragm inj (Pearsons 146) * Caustic inj to the esoph (pearsons 70) * Esoph perf (Pearsons 73) * Tracheobronchial trauma (Pearsons 145)			Rascoe
	CV 33	Cardiothoracic trauma III	Esophageal injury knowledge Tracheobronchial injury knowledge	Esophageal injury management Tracheobronchial injury management				
5/31/2021 Week 41		Memorial Day						
6/7/2021 week 42		ORAL BOARDS						
6/14/2021 Week 43	TS 29	Disorders of the Airway I	anatomy of the larynx trachea and bronchus Signs/symptoms and presentation of airway disease	Techniques for surgical resection Bronchoplastic procedures	* Anatomy of trachea (Grillo ch 1) * Main and Lobar Bronchoplasty (Grillo ch 30) * Path of tracheal tumors (Grillo ch 3) * Tracheal resection (Grillo ch 32)	Disorders of the Airway Benchmark quiz	Cardiothoracic Trauma Benchmark quiz	Mehran

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	TS 30	Disorders of the Airway II	Pathology of tracheal tumors	Medical and oncologic airway disease treatments				
6/21/2021 Week 44	TS 31	Disorders of the Airway III	Sign and symptoms of anastomotic complications and tracheoesophageal fistula	Management of anastomotic complications and treatment of tracheoesophageal fistula	* Complications of tracheal reconstruction (Grillo ch 21) * Repair of aquired fistula (Grillo ch 26)			Rajaram
6/28/2021 Week 45	TS 32	Management of Benign Esophageal Disorders I	Esophageal anatomy	Anatomy of Small Bowel and Colon. Reconstruction with Stomach, Small Bowel, or Colon	* Clinically oriented anatomy (Pearsons 2) * Function tests (Pearsons 9) * High-resolution manometry (Thoracic Surgery Clinics) use this to supplement Chapter 9 in Pearson's	Benign Esophageal Disorders Benchmark quiz	Disorders of the Airway Benchmark quiz	Banki
	TS 33	Management of Benign Esophageal Disorders II	Diagnostic tests and tools and their interpretations	Nonsurgical therapies for motility disorders, reflux and achalasia				
7/5/2021 Week 46	TS 34	Management of Benign Esophageal Disorders III	Pathophysiology of motility disorders, diverticula	Surgical options for motility disorders, diverticula	* Esophageal motility disorders (Pearsons 66) * Esoph Diverticula (pearsons 65) * Eval and Surg Tx of hiatal hernias and GERD (pearsons 14) * Optimizing pt selection and outcomes (Current treatment options in gastroenterology)			Banki
	TS 35	Management of Benign Esophageal Disorders IV	Pathophysiology of reflux, infections strictures, trauma, and TE fistulas	Surgical options for reflux, infections, strictures, trauma and TEF				
7/12/2021	TS 36	Management of Esophageal Neoplasia I	Anatomy of esophagus and stomach	Anatomy of colon	* Benign esoph tumors (Pearsons 39) * Epidemiology of Esoph Ca (Surgical clinics of N America) * Barrettl's Oesophagus: Freq and	Benign Esophageal Disorders Benchmark quiz	Esophageal Neoplasia Benchmark quiz	

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Week 47			Epidemiology of Esophageal cancer	Screening and prevention	pred (Best Prac and research in clinical gastro) * Long-term efficacy and safety of (Gastroenterology) * Radiofrequency ablation in Barrett's esoph (NEJM)			Swisher
	TS 37	Management of Esophageal Neoplasia II	Benign Esophageal neoplasms Barrett's esophagus with dysplasia	Treatment of HGD and early adenocarcinoma Endoscopic resection of T1a/T1b tumors				
7/19/2021 Week 48	TS 38	Management of Esophageal Neoplasia III	Diagnosis and staging for esophageal cancer Esophagectomy	Complications of esophagectomy	* Diag and Staging of esoph Ca (pearsons 41) * STS guidelines on the diag and staging (Annals of Thoracic Surg) * Complications of esoph resections (Pearsons 50) * Patterns of recurrence after surgery alone vs preop...(JCO) * Esoph nightmare: Ca recurrence			Vaporciyan
	TS 39	Management of Esophageal Neoplasia IV	Stage II and III: treatment, survival and recurrence patterns	Stage II and III: salvage esophagectomy, extension of lymphadenectomy				
7/26/2021 Week 49	TS 40	Management of Esophageal Neoplasia V	Stage IV: Palliative treatment	Stage IV: chemotherapy and targeted therapy	* Palliation of esophageal ca (pearsons 48) * Palliative therapy for Pt's w unresectable esoph Ca (Surgical clinic of N America)		Esophageal Neoplasia Benchmark quiz	Walsh