

Category (科目区分)	Cluster of Biofunctional Systems		
Course Title (授業科目名)	Cardiovascular surgery, practical training		
Instructors (担当者名)	Hiroyuki Nakajima	Academic Year (配当年次)	1st or 2nd year
Required course / Elective Course (必修/選択)	Elective Course	Credits (単位数)	1 credit
Class Format (授業形態)	Lecture		
Schedule (開講期間)	Students will be notified by email after course registration.		
Class Date/Period (開講曜日・時間)	Students will be notified by email after course registration.		
Course Outline/ Course Objectives (授業の概要・到達目標)			
Course Outline			
1. surgical procedures for congenital heart disease (inguinal surgery, endocardial repair surgery)			
2. valvular disease (valvuloplasty, valve replacement, aortic root replacement)			
3. coronary artery disease (on pump and off pump surgery)			
Surgical techniques for aortic disease (true aortic aneurysm, dissecting aortic aneurysm, aortitis syndrome, etc.)			
5. peripheral vascular disease (arterial revascularization for chronic atherosclerosis)			
6. assisted circulation (intra-aortic balloon pump, left ventricular assist device, etc.)			
Endovascular therapy (stent therapy)			
Course Objectives			
The goal of this course is to understand the basic concepts of cardiovascular diseases that are subject to surgery and the pathology and conditions necessary for surgical treatment.			
Course Planning (授業計画)			
	Course Outline/ Course Objectives (授業の概要及び到達目標) (Contents of Class) (授業内容)	Instructor (担当教員名)	Department (講座名) Class Room [実施場所]
1	Surgery for congenital heart disease	Hiroyuki Nakajima Daichi Takagi	Department of cardiovascular surgery [Online/on-demand]
2	Surgery for valvular disease		
3	Surgery for coronary artery disease		
4	Surgery for aortic disease		
5	Surgery for peripheral artery disease		
6	Assisted circulation (Ventricular assist device, etc.)		
7	Endovascular aortic repair		
Grading Criteria (成績評価の基準と方法)			
Evaluation will be based on attendance and submitted reports.			
Contact Information (問い合わせ先(氏名, メールアドレス等))			
Name: Hiroyuki Nakajima / E-mail: cvs@cvs.med.akita-u.ac.jp			
Comment (その他特記事項)			
Information about the course:			
For working graduate students who are unable to attend the practical training due to work commitments, the schedule will be adjusted.			
Textbook and references: Kirklin/Barratt-Boyes Cardiac Surgery, 4th ed.			
Self-study time: It is desirable to use reference materials after the course in order to deepen understanding of the contents.			