

Category (科目区分)	Cluster of Organ Development and Regenerative Systems		
Course Title (授業科目名)	Bone, cartilage, and tooth regeneration		
Instructors (担当者名)	Hiroshi Takano	Academic Year (配当年次)	1, 2
Required Course / Elective Course (必修/選択)	Elective Course	Credits (単位数)	1
Class Format (授業形態)	Lecture		
Schedule (開講期間)	October 2025–March 2026 (Details of schedule are negotiable)		
Class Date/Period (開講曜日・時間)	October 2025–March 2026 (Details of schedule are negotiable)		
Course Outline/ Course Objectives (授業の概要・到達目標)			
<p>The purpose of the lesson is to understand the mechanism of bone and tooth regeneration. SBOs: Understand the three elements of cells, scaffold, and signal (differentiation and growth factor), which are the most important in regenerative medicine, and also conduct experiments to induce differentiation of mesenchymal stem cells and ectopic bone. By conducting regenerative experiments, we will learn the actual application methods of these three elements.</p>			
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	General regenerative medicine for oral and maxillofacial region	Associate Professor (Hiroshi Takano)	Dentistry and Oral Surgery [Staff Room]
2	Biomaterial as scaffold for regenerative medicine	Associate Professor (Hiroshi Takano)	Dentistry and Oral Surgery [Staff Room]
3	Bone regeneration mechanism	Assistant Professor (Hidemitsu Igarashi, Yasunori Konno, Mineyo Fukuchi)	Dentistry and Oral Surgery [Staff Room]
4	Tooth regeneration mechanism	Assistant Professor (Hidemitsu Igarashi, Yasunori Konno, Mineyo Fukuchi)	Dentistry and Oral Surgery [Staff Room]
Grading Criteria (成績評価の基準と方法)			
The evaluation will be made in consideration of attendance, the results of oral and written examinations, and the contents of the submitted report.			
Contact Information (問い合わせ先(氏名, メールアドレス等))			
Name: Hiroshi Takano / E-mail: htakano@med.akita-u.ac.jp			
Comment (その他特記事項)			
If you are a graduate student who is a member of society and cannot attend the training due to work, we will adjust the schedule.			