

Category (科目区分)	Cluster Common Basic Subjects		
Course Title (授業科目名)	Basic medical technology training "Principles and practical techniques of cell culture technology"		
Instructors (担当者名)	Yoshihiro Matsumura	Academic Year (配当年次)	1
Required Course / Elective Course (必修/選択)	Elective Course	Credits (単位数)	1
Class Format (授業形態)	Practice		
Schedule (開講期間)	Students will be notified by email after completing the course registration.		
Class Date/Period (開講曜日・時間)	Students will be notified by email after completing the course registration.		
Course Outline/ Course Objectives (授業の概要・到達目標)			
<p>Purpose of class: The purpose of the class is to learn the most basic techniques of cell culture, which are essential in medical research, as practically as possible.</p> <p>Achievement goal of class: The goal is to become familiar with and practice basic knowledge and techniques of cell culture and various cell culture methods.</p> <p>Outline of class: Outline basic knowledge and basic technology of cell culture. Actually, general adherent cells and floating cells are cultured in the cell culture room. Depending on the experience, achievements and wishes of the participants, we will practice the culture and experiments of various other cancer cells, stem cells, primary cultured cells, etc.</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	Basic knowledge and technology of cell culture	Yoshihiro Matsumura Yukio Koizumi Jianbo An	Department of Biochemistry and Metabolic Science [Reserch Building for Basic Medicine 4th floor, Laboratory]
2			
3	Adherent cell culture training	Yoshihiro Matsumura Yukio Koizumi Jianbo An	
4			
5	Floating cell culture training	Yoshihiro Matsumura Yukio Koizumi Jianbo An	
6			
7	Other types of cell culture training	Yoshihiro Matsumura Yukio Koizumi Jianbo An	
8			
Grading Criteria (成績評価の基準と方法)			
One credit for a total of 45 hours (30 hours of practical training in seminar and culture rooms + 15 hours of self-study),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: Yoshihiro Matsumura / E-mail: ymatsumura@med.akita-u.ac.jp			
Comment (その他特記事項)			
<p>Course Information: If you are a working graduate student and cannot attend the practical training due to your work schedule, we will adjust the schedule.</p> <p>Textbooks and references: Revised Cell Culture Introductory Notebook" by Toshinori Ide and Hidetoshi Tahara, ISBN 978-4-89706-929-6</p> <p>Self-study content during self-study time: It is desirable to carry out preparatory learning according to the goals and lesson content.</p>			