<mark>Category</mark> (科目区分)	Research subject		
<mark>Course Title</mark> (授業科目名)	Biochemistry		
<mark>Instructors</mark> (担当者名)	Yoshihiro Matsumura	<mark>Academic Year</mark> (配当年次)	2,3
Required Course / Elective Course (必修/選択)	Elective Course	<mark>Credits</mark> (単位数)	15
<mark>Class Format</mark> (授業形態)	Lecture & Practice		
<mark>Schedule</mark> (開講期間)	Students will be notified by email after completing the course registration.		
<mark>Class Date/Period</mark> (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)			
Purpose of class: The purpose of the class is to deepen the understanding of the pathophysiology of diseases and the mechanism of physiological phenomena by clarifying biological phenomena at the			

molecular and cellular levels. Achievement goal of the class: Conduct research activities on research themes such as diabetes and malignant tumor, and elucidate the mechanism of disease pathology and physiological phenomena at the molecular and cellular levels. The goal is to obtain a doctor's degree after publishing the prepared paper in

a leading overseas academic journal and undergoing a degree examination.

Class outline:

1. Learn the latest findings through literature abstracts on epigenome and RNA regulation and signal transduction in pathological conditions, and teach how to formulate and prove working hypotheses when starting research.

2. Guide to acquire the latest technologies in biochemistry / molecular biology, cell biology, developmental biology, and bioinformatics, which are essential for epigenome and RNA control and analysis of signal transduction, and to analyze and aggregate the obtained data. At the same time, we will teach you how to put these into an academic paper.

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)

Information about the course: If you are a working graduate student and cannot attend the practical training due to work, we will adjust the schedule.

Textbooks and reference materials: Materials will be distributed as necessary.

Content of study during self-study time: It is desirable to conduct preparatory study according to the objectives and class content.