

Syllabus Reference

Course title	Developmental Biology IV		
Term	後期 2nd Half		
Credit(s)	1		
The main day		The main period	
School/Program	School of Life Science		
Department/Program	Department of Genetics		
Category	Genetics		
Lecturers			

Instructor	
Full name	
* SAGA YUMIKO	
SAWA HITOSHI	

Outline	Various developmental events, such as cell fate determination, cell differentiation, morphogenesis and animal behavior will be analyzed in light of gene expression, cell-cell interaction, intracellular signaling and evolution. Classes will be run by critical reading of the primary literature and discussion.
Goal	Development can be viewed as an integral of molecular and cell biological events, and also is a process through which evolutionary changes in form is generated. Through discussing how the principles and concepts of developmental biology developed and what kind of new challenges they generate, students are expected to nurture their framework in which they conduct their own work in various disciplines.
Grading system	
01:Four-grade evaluation (A, B, C, D)	
Grading policy	To obtain credit one must attend five or more classes (of total of eight classes) . Grades (A, B, C, D) will be determined based on the activity of discussion with lecturer and other students s.
Lecture Plan	<p>This course will introduce basic principles and concepts of that direct developmental phenomena. Various developmental events, such as cell fate determination, cell differentiation, morphogenesis and animal behavior will be analyzed in light of gene expression, cell-cell interaction, intracellular signaling and evolution. Classes will be run by critical reading of the primary literature and discussion. Please download the paper from links below and take a look at it in advance. It is not necessary to have completely understood the paper before coming to class. This course will be conducted in English. For questions and comments in Japanese, lecturers will provide simultaneous translation service to English.</p> <p>11/8 SAGA Yumiko Introduction: basic concept of developmental biology 11/15 SAITO Kuniaki Maternal effect genes in development 11/22 ODA Yoshihisa Organogenesis in plants 11/29 SATO Yutaka Long distance signaling in plants 12/6 ZHU Yan Robustness in development 12/20 IWASATO Takuji Gene rearrangement 1/17 KURAKU Shigehiro Timing mechanism in development 1/31 KOIDE Tsuyosi Early experience and epigenetic modification</p>
Location	B202
Language	English
Textbooks and references	Classes will be run by discussion based on the content of the primary literature. Please download the paper from links below and take a look at it in advance. It is not necessary to have completely understood the paper before coming to class.
Others	Familiarity with basic concepts of Molecular and Cell Biology is recommended.