Elective Course Description (2. Spring Semester)

Subject (English)	Molecular and Cellular Biology	Semester	Spring	Day/Slot	
科目名 (日本語)	分子細胞生物学				
Course Code		Course Numbering	SBI-BIO802E	Period	Apr. – Aug.
Instructor (Post)	M.Koganezawa,*et al.* （Assoc.Prof**)**			Campus	
				Building	
Faculty	Faculty of Science	Credits	2	Class Room	

Class subject	Molecular and Cellular Biology

Object and summary of class

This course offers an introduction to biochemistry, genetics, cell biology, early development, and neurobiology. This course is an omnibus lecture consisting of multiple topics.

Keywords	biochemistry, genetics, cell biology, developmental biology, neurobiology

Goal of study

Learn the basic concept of molecular and cellular biology, which is the basis of modern biology. Understand the cell as the basic unit of life; its composition, functions, replication, and differentiation.

Contents and progress schedule of class

-Dynamic cellular behaviors in embryogenesis

-Germline cell development in animal embryos

-Molecular biology of plant

-Neural mechanisms of courtship behavior

-Development of the nervous systems

-Investigation of the brain function by neurophysiological methods

-Reward, punishment, and neural circuits

-Pattern Formation in Plants

-Membrane dynamics in cells

-Collective cell movement in epithelial morphogenesis

-Pattern formation in vertebrates

Preparation	NA
Record and evaluation method	For evaluation, students are required to attend the class, and must submit an essay dealing with a topic covered in one of the lectures.
Textbook and references	The printout of reference material will be distributed every time.
Self study	NA
In addition	