

○ Syllabus Reference

Course title	Genetics	
Term	前期 1st Half	
Credit(s)	1	
The main day		The main period
Program/Department	49 Genetics	
Lecturers	Kuniaki Saito, Hitoshi Sawa and others	
成績評価区分 Grading Scale	A, B, C, Dの4段階評価 Four-grade evaluation	
レベル Level	Level 3	
力量 Competence	専門力 Academic expertise	

Instructor
Full name
* SAITO KUNIAKI

Outline	Basic concepts, approaches and techniques in Genetics will be outlined and discussed, focusing on organisms used in research. In addition, the lecture focuses on the advantages and disadvantages of research using each organism, the unique phenomena of each organism and the universal laws of genetics.
Learning objectives	<ol style="list-style-type: none"> 1. To understand the historical background and the aim of Genetics 2. To understand the basic features of organisms and methods used in Genetics 3. To understand to what extent phenotypes are defined by genes, and the interplay between the genes and other factors
Grading policy	The grades will be A, B, C, and D, based on the student's understanding on the aspects presented in the above Course Objectives. The grades are mainly determined by the quality of the paper. The subject(s) of the paper must be one of the 3 aspects. The student's attitude at the classes is also considered to judge the level of his/her understanding. There is no criteria on the number of class the student must attend. If the student notifies the lecturer in charge (Dr.Saito, saitok@nig.ac.jp) when he/she cannot attend the class with the reason, it will be considered upon the judgement.
Lecture Plan	<p>13:30-15:10 on Friday</p> <ol style="list-style-type: none"> 1. 2026/05/08 : Kuniaki Saito : Introduction (basic knowledge on genetics) and Drosophila genetics 2. 2026/05/22 : Hitoshi Sawa : Genetics of <i>C. elegans</i> 3. 2026/05/29 : Kazuhide Asakawa : Genetics of Zebrafish genetics 4. 2026/06/05 : Tsuyoshi Koide : Mouse genetics 5. 2026/06/12 : Yosuke Kawai : Human genetics 6. 2026/06/19 : Kenichi Nonomura : Plant genetics 7. 2026/06/26 : Hiroshi Mori : Genome informatics 8. 2026/07/03 : Shigehiro Kuraku : Comparative genomics approach in genetics
Location	Oral and Zoom: Seminar Room (B301), 3rd floor of Library in the National Institute of Genetics
Language	English
Textbooks and references	Genetics: From Genes to Genomes, 5th edition, Leland H. Hartwell, Michael L. Goldberg, Janice A. Fischer, Leroy Hood, Charles F. Aquadro
Notes for students of other programs	None in particular.
Contact for Course Inquiries	Academic Services Division of NIG: info-soken@nig.ac.jp