

Basic information	
Category	Specialized education
Subject	General Genetics 1
Credit	2
Detailed information	
Lecture plan / Theme	In “General Genetics 1”, the fundamentals of the molecular genetics mainly of the prokaryote ( <i>Escherichia coli</i> and phage) is outlined. The technologies of contemporary genetics are also described, looking back upon the history of their development.
Course Description / Objectives	Students learn about the fundamental of structure and mechanism of prokaryote, and genetics of prokaryote.
Overview of Each Class	<ol style="list-style-type: none"> <li>1. Structure of Bacterial Cell</li> <li>2. Structure and the life circle of phage</li> <li>3. Structure of the DNA</li> <li>4. DNA Replication (1)</li> <li>5. DNA Replication (2)</li> <li>6. Sequencing</li> <li>7. Gene cloning</li> <li>8. Gene structure</li> <li>9. Gene expression and its regulatory mechanism (1)</li> <li>10. Gene expression and its regulatory mechanism (2)</li> <li>11. Mutation</li> <li>12. DNA repair</li> <li>13. DNA recombination</li> <li>14. Gene transfer</li> <li>15. Examination and Commentary</li> </ol>
Text Book / Reference Books	Handouts will be provided.
Assessment of Achievement	(1) Participation; more than 2/3 of classes are required. (2) Final examination
Requirements for Students	Required; The completion of “General Biology IB” , “General Biology IIB” Related subject; “General Genetics 2”
Remarks	