

Syllabus Reference

Course title	Training Course for Bioinformatics	
Term	後期 2nd Half	
Credit(s)	1	
The main day		The main period
School/Program	School of Life Science	
Department/Program	Common Subjects of Life Science	
Category	Common	
Lecturers		

Instructor

Full name

* SHIGENOBU SHUJI

Outline	Mainly focusing on sequence data analyses, both theoretical background and practical skills of basics bioinformatics are introduced through lectures and hands-on tutorials. Also, students can learn how to apply bioinformatics to genome and transcriptome analyses. This is a two-day intensive course.
Goal	The following three objectives are attained through lectures and hands-on tutorials. 1. Understand basic principles in biological sequence analyses. 2. Master basic skills for genomic and transcriptomic analyses. 3. Learn the current state of genomics and bioinformatics research, and discuss the prospects for life science in the Big Data era.
Grading system	01:Four-grade evaluation (A, B, C, D)
Grading policy	In addition to sufficient attendance to the lecture, students must complete an assignment to get credit for the course. Activity in the lectures and tutorials: 50%; An assignment 50%.
Lecture Plan	This is the 2-day intensive course. Schedule: Feb 2-3, 2022 9:15-16:45 Day 1 - #1 Introduction to genomics and bioinformatics - #2 Biological sequence analysis 1 - #3 Biological sequence analysis 2 - #4 Genome analysis 1 Day 2 - #5 Genome analysis 2 - #6 Transcriptome analysis 1 - #7 Transcriptome analysis 2 - #8 Biological databases and current topics
Location	NIBB (It may change to online due to COVID-19 situation)
Language	English
Textbooks and references	No specific literatures are recommended. Familiarity with basic UNIX command line operations is recommended.
Keyword	bioinformatics genomics transcriptome evolution big data