Module Descriptions

Module designation	Biostatistics and Biocomputer
Module level	Bachelor degree/Undergraduate Programme
Course Code	8420502309
Semester/Term	2nd semester/year 1
Person responsible for the module	Erlix Rakhmad Purnama, S.Si., M.Si. Dr. Pramita Yakub, S.Pd., M.Pd. Dr. Adi Maladona, M.Pd. Dr. Muji Sri Prastiwi, S.Pd., M.Pd. Putut Rakhmad Purnama, S.Si, M.Si.
Language	Bahasa Indonesia (Indonesian language)
Relation to curriculum	Compulsory course
Teaching method	Lecture
Workload	2 x50 minutes lectures, 2 x60 minutes structured activity, 2 x60 minutes individual activity, 14 weeks per semester, 135 total hours per semester ~ 4.77 ECTS**
Credit Point	2 CUs
Required and recommended prerequisites for joining the module	-
Module Objectives/intended learning outcomes	1. Students can apply statistical and computational concepts in the analysis of experimental biological data 2. Students can analyze experimental results using statistical software to obtain relevant patterns and trends 3. Students can evaluate the accuracy and reliability of biological data obtained from various sources using statistical methods 4. Students can use software for simulation and modeling of complex biological phenomena 5. Students can analyze and interpret biological data using biostatistical principles to support decision making 6. Students can apply biocomputational techniques to solve biological problems systematically and creatively 7. Students can analyze the complexity of biological problems and develop appropriate computational-based solutions

Content	This course discusses the basics of biostatistics in computer-based practice and research, including: data forms, data organization, central tendency and data distribution including mean, standard deviation, variation; normal distribution; hypothesis testing, analysis of variance, correlation-regression analysis, analysis of covariance, and nonparametric statistics.
Study and examination requirements and forms of examination	**Study Requirement** Attendance: students must attend at least 75% of the lectures to be eligible for the final examination. **Study examination** The final grade (*NA*) is calculated based on the following ratio:

Assessment Components	Percentage of contribution
Participation	20%
Assignment	30%
Mid-semester test	20%
Final semester test	30%

Grade Conversion of 0-100 scale into 0-4 scale is set as below:

Letter	Number	Grade interval
A	4.00	$85 \leq A \leq 100$
A-	3.75	$80 \leq A\text{-} < 85$
B+	3.50	$75 \leq B\text{+} < 80$
B	3.00	$70 \leq B < 75$
B-	2.75	$65 \leq B\text{-} < 70$
C+	2.50	$60 \leq C\text{+} < 65$
C	2.00	$55 \leq C < 60$
D	1.00	$40 \leq D < 55$
E	0.00	$0 \leq E < 40$

| Reading List | Hariani D, Ambarwati R, Purnama ER, 2019. Buku Ajar Mahasiswa: Biostatistika dan Biokomputer. Surabaya: Unesa Press |