UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS EDUCATION
Jalan Colombo Nomor 1 Yogyakarta 55281
Telepon(0274)565411 Pesawat 217, (0274)565411(TU),fax (0274)548203
Laman:fmipa.uny.ac.id, E-mail: humas_fmipa@uny.ac.id

Bachelor of Science in Mathematics **MODULE HANDBOOK**

Module name:	Advanced Statistics
Module level,if applicable:	Undergraduate
Code:	MAT6309
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	3rd
Module coordinator:	Elly Arliani, M.Si.
Lecturer(s):	1. Elly Arliani, M.Si. 2. Retno Subekti, M.Sc. 3. Dr. Djamilah BW 4. Mathilda Susanti, M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory course
Teaching format/class hoursperweekduring the semester:	150minutes lectures and 180 minutes structured activities per week.
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes individual study per week for 16 weeks.
Creditpoints:	3
Prerequisites course(s):	Statistics (MKU 6201)
Course Outcomes:	After taking this course, the students have the ability to: CO1. Demonstrate respect for the views, opinions,or original findings of others.

	CO2. Demonstrate the ability to think critically, creatively, innovatively, and systematically in the development of science and technology, both independently and in groups. CO3. Demonstrate the ability to convey mathematical ideas in writing and verbally based on values of honesty CO4. Understand the estimation of the parameters of two populations CO5. Understand the hypothesis testing of two population parameters. CO6. Understandthe hypothesis testing of more than two population parameters. CO7.Understand the use of Chi-Square tests CO8. Understand simple regression analysis CO9. Understand testing ofregressionmodel CO10. Understand multiple regression analysis CO11. Understand several nonparametric statistical tests CO12. Resolve the problem of using concepts in advanced statistics,either manually or using statistical software.
Content:	This course discusses parameter estimation for two populations, hypotheses testing for two populations and more than two populations, one-way variance analysis and multiple comparison tests, linear regression, and several hypothesis testing related to nonparametric statistics.
Study/examachievements:	Attitude assessment is carried out at each meeting by observation and/or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitudeif they show it significantlycompared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of therequirements to pass the course. Students will pass from this course if at least have a good attitude. The final mark will be weight as follow:

<table>
<tr><td></td><td>
<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO2</td><td>Presentation</td><td>Observasi</td><td>10%</td></tr>
<tr><td>2</td><td>CO4, CO5, CO6, CO7, CO8, CO9, CO10, CO11</td><td>a. Class participation (during discussion and working on the board)
b. Quiz
c. Assignment</td><td>Observation

Written test
Written test</td><td>10%

15%
15%</td></tr>
<tr><td>3</td><td>CO4, CO5, CO6, CO7</td><td>Mid-Term Examination</td><td>Written test</td><td>25%</td></tr>
<tr><td>4</td><td>CO8, CO9, CO10, CO11</td><td>Final Examination</td><td>Written test</td><td>25%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
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</td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>Literature:</td><td>1. Walpole, Ronald.E . 1995. Alih bahasa oleh Bambang Sumantri. Introductory to Statistics. Gramedia, Jakarta.
2. Stephens, L. J. 2004. Advanced Statistics. New York: McGraw-Hill
3. Mario F. Triola. 2004. Elementary Statistics, ninth edition. Pearson Education. Inc.</td></tr>
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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1		✓								
CO2			✓							
CO3				✓						
CO4					✓					
CO5					✓					
CO6					✓					
CO7					✓					
CO8					✓					
CO9					✓					
CO10					✓					
CO11					✓					
CO12									✓	