

Statistic

Course Title: Student Development					
Course Code: COM6101 1	Student Workload: 8.50 Hours / Weeks	Credits: 3 Credits (4,50 ECTS)	Semester: 3 rd Semester	Frequency: Odd Semester	Duration: 16 Weeks/ Semester (<i>Lecture:</i> 14 weeks; <i>Midterm assessment</i> : 1 week; <i>Final assessment</i> : 1 week)
1	Types of Courses: Knowledge Course	Contact Hours: <i>Lecturing:</i> 2.50 Hours/ Week; <i>Practical Work:</i> 0.00 Hours/ Week	Independent Study: <i>Self-study:</i> 3.00 Hours/ Week; <i>Strcutured Assignment:</i> 3.00 Hours/ Week	Class Size: 40 Students	
2	Prerequisites for Participation (If Applicable): -				
3	Learning Outcomes: 1. M1: Able to understand and calculate the concepts of descriptive statistics, inferential and statistical thinking. 2. M2: Able to understand and calculate probability and random variables. 3. M3: Able to understand and calculate the concept of sampling, and sampling distribution. 4. M4: Able to understand and calculate the concept of parameter estimation. 5. M5: Able to understand and demonstrate hypothesis testing. 6. M6: Able to understand and calculate the concept of regression and correlation.				
4	Subject aims/Content: At the end of the course, students are expected: 1. L1: Able to explain the meaning of descriptive statistics, inferential and statistical thinking in the aspects of collecting, presenting, processing, and analyzing data, as well as presenting decision-making materials. 2. L2: Able to present qualitative and quantitative data based on sample and population data in the form of tables, graphs, and others. 3. L3: Able to understand and calculate the size of the data concentration related to the average value, and the size of the data deviation related to the variance value. 4. L4: Able to understand and calculate the probability value of an event, Bayes' rule. 5. L5: Able to understand and calculate probability values and the shape/curve of Binomial distribution, hypergeometric distribution and Poisson distribution. 6. L6: Able to understand and calculate probability values and the shape/curve of normal distribution and t-student distribution. 7. L7: Able to understand and calculate probability values and shape/curve of F distribution, chi - square distribution. 8. L8: Able to understand and calculate probability values and the process of forming a sampling distribution. 9. L9: Able to perform statistical inference, point estimation, interval estimation for a population to determine the value of the data confidence interval size. 10. L10: Able to perform statistical inference, point estimation, interval estimation for two populations to determine the value of the data confidence interval size. 11. L11: Able to test the hypothesis of one population mean for small and large samples and p-value to prepare material for decision making. 12. L12: Able to test the mean and variance of two populations for small and large samples. 13. L13: One-way analysis of variance to prepare material for decision making. 14. L14: Able to present data in simple linear regression models and correlations to determine the effect of the relationship between variables.				

5	Teaching Methods: Lecturing, Group Discussion, Case-Based Learning
6	Assessment Methods: Essay, multiple-choice, performance test, peer assessment
7	This Course is Used in The Following Study Programme/s as Well: -
8	Responsibility for Course:
9	Other Information: Bibliography: <ol style="list-style-type: none"> 1. Hasan, M.I. Pokok-Pokok Materi Statistik 1: Statistik Deskriptif. Bumi Aksara. 2015 2. Hasan, M.I. Pokok-Pokok Materi Statistik 2: Statistik Inferensif. Bumi Aksara. 2015 3. Sugiyono. Statistika untuk Penelitian. Alfabeta. 2011 4. R. E. Walpole, R. H. Myers, S.L. Myers & K.Ye. Probability & Statistics for Engineers and Scientists, 7th ed, 2002, Prentice Hall International Edition. 5. J. T. Mc Clave & F. H. Dietrich., Statistics, 9th ed., 2003, Prentice Hall 6. R. A. Johnson, & G. K. Bhattacharyya, Statistics: Principles and Methods, 3rd ed., 1996, John Willey & Sons