



MINISTRY OF EDUCATION AND CULTURE
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF PHYSICS

Ketintang Campus, Jalan Ketintang, C3 Building, Surabaya 60231
Website: <http://s1-fisika.fmipa.unesa.ac.id/>, email: s1-fisika@unesa.ac.id

Undergraduate Programme In Physics

Module Handbook

Module Name :	<i>Statistika</i> Statistics
Module level :	Bachelor degree/Undergraduate Programme
Course Code :	4520102203
Abbreviation, if applicable:	-
Courses included in the module, if applicable:	Not Applicable
Semester/Term	4/Second Year
Module coordinator(s)	Nadi Suprpto, Ph.D
Lecturer(s):	Prof. Dr. Budi Jatmiko Dr. Dwikoranto Nadi Suprpto, Ph.D Dr. Binar Kurnia Prahani
Language:	<i>Bahasa Indonesia</i> (Indonesian Language)
Classification within the curriculum:	Compulsory/ Elective
Teaching format/class hours per week during the semester:	2 contact hours of lectures (sks or credit unit*)
Workload :	Lecture: 2 x 50 minutes lectures, 2 x 60 minutes structured activity, 2 x 60 minutes individual activity, 14 weeks per semester. 79.33 total hours per semester ~ 3.18 ECTS **
Credit Point:	2 sks (3.18 ECTS)
Requirements:	
Learning goals/competencies:	1. Apply knowledge in relating to physics education research 2. Able to process information effectively in solving physics problems and adapting to the situation at hand through a physics education philosophy approach 3. Demonstrate good scientific manners, critical thinking, and innovation skills in educational, research, and professional fields
Content	This statistics course has seven main parts, namely: (1) Statistical Data, Parametric Statistics & Non-Parametric Statistics, Statistical Software; (2) homogeneity and similarity test of two means, normality test; (3) Difference Test (Parametric Average Statistical Test & Non Parametric Statistics); (4) Probability, confidence interval & Estimated mean



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	and variance; (5) Linear and multivariable regression; (6) Correlation and covariance; (7) Anova and Ancova.																															
Attribute Soft skill:	Scientific report, public speaking, and teamwork																															
Study/exam achievements:	Students are considered to complete the course and pass if they obtain at least 40% of maximum final grade. The final grade (NA) is calculated based on the following ratio: <table><tr><th>Assessment Components</th><th>Percentage of contribution</th></tr><tr><td>Participation</td><td>20%</td></tr><tr><td>Assignment</td><td>30%</td></tr><tr><td>Mid-semester test</td><td>20%</td></tr><tr><td>Final semester test</td><td>30%</td></tr></table>	Assessment Components	Percentage of contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final semester test	30%																					
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Learning Methods :	Student-centered approach, lecture and discussion, and presentations (structured activities)																															
Form of Media:	PowerPoint slides, e-book files, and multimedia.																															
Literature (primary references):	1. Ken Black, (2013), Business Statistics, John Willey & Sons. 2. Wijaya, Tony. (2010), Analisis Multivariat, Penerbit Cahaya Atma. 3. Hair, J.F., Black, B., Babin, B., Anderson, R, E & Tatham, R. L., (2006). Multivariate data analysis, 6th Edition, New Jersey : Prentice Hall International, Inc B.																															



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	4. Wijaya, Tony. (2012), <i>Cepat Menguasai SPSS 20</i>, Penerbit Cahaya Atma. 5. Wijaya, Tony. (2013), <i>SEM & PLS (Panduan Teknik statistik SEM & PLS)</i>, Penerbit Cahaya Atma.
Notes:	*1 <i>sks</i> in learning process = three periods consist of: (a) scheduled instruction in a classroom or laboratory (50 minutes); (b) structured activity (60 minutes); and (c) individual activity (60 minutes) according to the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 44 Year 2015 jo. the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 50 Year 2018. **1 <i>sks</i> = 1,59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/Un38/Hk/Ak/2019