



MODULE HANDBOOK

Data and Statistical Geography

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Undergraduate Study Program for Geography
Faculty of Mathematics and Natural Sciences
Universitas Indonesia

Data and Statistical Geography

Module designation	Data and Statistical Geography
Semester(s) in which the module is taught	Third (3rd) Semester
Person responsible for the module	Dr. Dewi Susiloningtyas, M.Si.
Lecturer	<ol style="list-style-type: none"> 1. Dr. Dewi Susiloningtyas, M.Si. 2. Nurrokmah Rizqihandari, S.Si., M.Si. 3. Dr. Hayuning Anggrahita S.Si., M.S.M. 4. Faris Zulkarnain, S.Si., M.T. 5. Satria Indratmoko, S.Si., M.Sc. 6.
Language	Bahasa Indonesia
Relation to curriculum	Compulsory
Teaching methods	Student-centered Learning and combination with Cooperative Learning
Workload (incl. contact hours, self-study hours)	<ol style="list-style-type: none"> 1. Lectures: 150 minutes per week per semester 2. Assignment: 180 minutes per week per semester 3. Independent study: 180 minutes per week per semester 4. Minutes x weeks x semester: $510 \times 14 \times 1 = 7140$ minutes per semester 5. Midterm Examination: 100 minutes per semester 6. Final Examination: 100 minutes per semester 7. Total workload per semester: 7340 minutes / 122 hours 20 minutes
Credit points	3 (Three)
Required and recommended pre-requisites for joining the module	<ol style="list-style-type: none"> 1. Thinking Geographically 2. Introduction to Geographic Method
Module objectives/intended learning outcomes	After completing this course, students were able to assess the appropriate statistical approach to the type and scale of different geographical data according to the needs of geographic research.
Content	<ol style="list-style-type: none"> 1. Introduction to Statistical Methods for Geography 2. Types of Data in Geography 3. Danction of Basic Descriptive and Inferential Statistics 4. Visualize Geographic Data in Descriptive Statistics 5. Data Center Tendency Measurement 6. Measuring Data Variability 7. Data Visualization 8. Random Variable 9. Data Distribution 10. Definition Hypothesis 11. Type of Hypothesis Test 12. Average Difference (T-Test, ANOVA) 13. Discrit Data Correlation 14. Ordinal Data Correlation 15. Simple Linear Regression 16. Multiple and Dummy Linear Regression 17. Logistic Regression
Examination forms	-
Study and examination requirements	<ol style="list-style-type: none"> 1. Individual Score (20%) 2. Quiz (10%) 3. Midterm Examination (30%) 4. Final Examination (40%)

Reading list	<p>Rogerson, Peter A. (2020). Statistical Methods for Geography 5th ed.. London: Sage</p> <p>Arlinghaus, S.L. (2000). Practical Handbook of Spatial Statistics. USA: CRC Press.</p> <p>Alhusin, S. (2003). Aplikasi statistik praktis dengan SPSS for window. Yogyakarta: Graha Ilmu.</p> <p>Ericson R. & J. Harlin, (1994). Geographic measurement and quantitative analysis. USA: Macmillan College publishing Company, Inc.</p> <p>Fotheringham, A.S., Brunson, C., & Charlton, M. (2000). Quntitative Geography. Perspectives on Spatial Data Analysis. London: Sage Publications.</p> <p>Iqbal,H. 2003. Pokok-Pokok Materi Statistik 1: Statistik Diskriptif, Jakarta: Bumi Aksara</p> <p>Iqbal,H. 2003. Pokok-Pokok Materi Statistik 2: Statistik Inferensif , Jakarta: Bumi Aksara</p> <p>Kitchin, R. & Nicholas J. Tate, (2000). Conducting Research in Human Geography: Theory, Methodology and Practice. London: Pearson Education Limite.</p> <p>Supranto, J. (2004). Analisis Multivariat, Arti & Interpretasi. Jaarta: Rineka Cipta</p> <p>Taylor, P. J. (1997). Quantitative Methods in Geography, An Introduction to Spatial Analysis, London: Houghton Mifflin Company Boston.</p> <p>Walford, N. (1994). Geographical data analysis. UK: John Wiley & Sons</p> <p>Wang, F. (2006). Quantitative methods and applications in GIS. New York: Taylor & Francis</p> <p>D. McCarroll. Simple Statistical Test for Geography. 2017. CRC Press Taylor & Francis Group</p>
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