



## **MODULE HANDBOOK**

### **Geocomputing and GIS Customization**

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

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## Geocomputing and GIS Customization

Module designation	Geocomputing and GIS Customization
Semester(s) in which the module is taught	Sixth (6th) Semester
Person responsible for the module	Dr. Eng. Masita Dwi
Lecturer	<ol style="list-style-type: none"> <li>1. Dr. Eng. Masita Dwi</li> <li>2. Mandini Manessa, M.Eng.</li> <li>3. Satria Indratmoko, M.Sc.</li> <li>4.</li> </ol>
Language	Bahasa Indonesia
Relation to curriculum	Elective
Teaching methods	Student-centered Learning and combination with Cooperative Learning
Workload (incl. contact hours, self-study hours)	<ol style="list-style-type: none"> <li>1. Lectures: 100 minutes per week per semester</li> <li>2. Assignment: 120 minutes per week per semester</li> <li>3. Independent study: 120 minutes per week per semester</li> <li>4. Minutes x weeks x semester: <math>340 \times 14 \times 1 = 4760</math> minutes per semester</li> <li>5. Midterm Examination: 100 minutes per semester</li> <li>6. Final Examination: 100 minutes per semester</li> <li>7. Total workload per semester: 4950 minutes / 82 hours 40 minutes</li> </ol>
Credit points	2 (Two)
Required and recommended pre-requisites for joining the module	<ol style="list-style-type: none"> <li>1. Geographic Information System</li> <li>2. Remote Sensing</li> </ol>
Module objectives/intended learning outcomes	After completing this course, sixth semester students (6) were able to formulate and make computing and customization with geographic information systems
Content	<ol style="list-style-type: none"> <li>1. The basic concept of program design in GIS</li> <li>2. Concept of computing and customization in GIS</li> <li>3. Procedure in computing and customization in GIS</li> <li>4. Computing design and customization in GIS for certain case studies</li> <li>5. Application of GIS Application Program Making for Computing and Customization in Certain Case Studies</li> </ol>
Examination forms	-
Study and examination requirements	<ol style="list-style-type: none"> <li>1. Individual Score (50%)</li> <li>2. Quiz (5%)</li> <li>3. Final Assignment (45%)</li> </ol>
Reading list	<p>Suyanto, K. N. R., &amp; Mandala, S. (2019). Deep Learning Modernisasi Machine Learning Untuk Big Data. Informatika.</p> <p>Purnama. B. (2019). Pengantar Machine Learning. Infromatika</p> <p>Lawhead, J. (2019). Learning Geospatial Analysis with Python: Understand GIS fundamentals and perform remote sensing data analysis using Python 3.7. Packt Publishing Ltd.</p> <p>Yahya Heryadi dan Edy Irwansyah (2018) Deep Leraning dan Aplikasinya di Bidang Geospasial</p>