MODULE HANDBOOK

<table>
<tr><td colspan="7">BASIC CARTOGRAPHY</td></tr>
<tr><td colspan="2">Module/Course Title

8720202080</td><td>Student Workload

2 CU X 14 X 170'= 90,6618</td><td>Credits

2 CU
3.18 ECTS</td><td>Semester

1TH</td><td>Frequency

ONCE YEAR</td><td>Duration

1 SEMESTER</td></tr>
<tr><td>1</td><td colspan="2">Types of courses
LECTURES

PRACTICUM</td><td>Contact hours

(2CU X 1,59

ECTS)

X{(50:170')X

28,51

Workhours=

26,64</td><td>Independent Study

(2CU X 1,59

ECTS)

X{(60:170')X

28,51

Workhours=

31,96</td><td>Structured Study

(2CU X 1,59

ECTS)

X{(60:170')X

28,51

Workhours=

31,96</td><td>Class size

MAX 39 STUDENT</td></tr>
<tr><td>2</td><td colspan="6">Prerequisites for participation (if applicable)
-</td></tr>
<tr><td>3</td><td colspan="6">Program Learning outcomes</td></tr>
<tr><td></td><td colspan="6">PLO 2
Able to analyze regional and regional characteristics (regionalization) in the context of resources and disasters based on the principles and approaches of geography to support sustainable development</td></tr>
<tr><td></td><td colspan="6">PLO 6
Able to make appropriate decisions in the context of problem solving in geography and geography education, based on the results of information and data analysis</td></tr>
<tr><td></td><td colspan="6">PLO 8
Able to formulate, process, analyze data, and present geosphere information both physical and human aspects by using geospatial technology for geography learning and research.</td></tr>
<tr><td></td><td colspan="6">PLO 12
Able to work together, have social sensitivity, high concern for society and the environment</td></tr>
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	CLO 1. Able and responsible for making maps independently or in groups (PLO-12) 2. Able to solve mapping problems based on analysis of information and field data. (PLO-6) 3. Able to process, analyze, and present physical, social and economic or educational data using geospatial technology for research. (PLO-8) 4. Be able to analyze the characteristics of the earth's surface (topography) in an area to support sustainable development. (PLO-
4	**Subject aims/Content** 1. Cartographic concepts, atlases and globes. 2. Map projection, including concept, map projection requirements, map projection classification, modified projection 3. Map components, including title, orientation, outline, inset, legend, latitude and longitude, source, maker's name and map scale. 4. Lay Out and Lettering, including the definition of lay out and lettering, layout models, determination of lettering, types of letters, placement of letters, basic symbols on maps 5. Map Symbols, including the meaning of symbols, placement of map symbols, symbol classification 6. Reading and interpreting maps, including measuring and calculating distances, areas and volumes, determining directions by means of azimuth and bearing, determining the location of a place qualitatively or quantitatively, the characteristics of contour lines, calculating the height and slope of a place on a contour map, Interpret the condition of the earth's surface with a contour map 7. Practice measuring azimuth and distance in the field for making maps.
5	**Teaching methods** *Project Base Learning,*
6	**Assessment methods** *paper test*
7	**This /course is used in the following study programme/s as well** -
8	**Responsibility for module/course** COMPULSORY/~~ELECTIVE~~*/ 1. Ferjan Ormeling. 2013, ***Kartigrafi Tematik : Aspek Sosial dan Ekonomi*** , Yogyakarta, Penerbit Ombak Dua. 2. Dewi Lies N.S,. Andi Iewan B., Saptono Putro . , 2014, ***Kartografi Dasar***, Yogyakarta, Penerbit Ombak. 3. Badan koordinasi Survei dan Pemetaan Nasional . 2003, ***Modul Pelatihan ; Membaca Peta*** Cibinong Bogor , Bakosurtanal 4. Prihandito, Aryono, 1989***, Kartografi***, Yogyakarta, Mitra Gama Widya 5. Raize, Erwin, 1984, ***General Carthography***. New York, John Wiley & Son Inc 6. Buchroithner, 2014, ***Paradigms In Carthography***, Dresden, Springer 7. Graferend, E.W., 2013. ***Map Projections. Carthographyc Information System***, Stuttgart, Springer