DEPARTMENT OF GEOMATICS ENGINEERING
UNDERGRADUATE PROGRAM IN GEOMATICS ENGINEERING
COURSE SYLLABUS

COURSE	Name	Field Camp
	Code	RM184625
	Credits	4 (four)
	Semester	VI (six)

COURSE DESCRIPTION

Field camp is one of the applied courses at the department of geomatics engineering. This course is the implementation of several lectures from the first to fifth semester. It is expected that students will have real experience (with a condition of the real geodetic survey) from a mapping activity. The survey activity integrates several lectures both with terrestrial and non-terrestrial methods in the selected regions and certain periods. Therefore, students can collect data directly with terrestrial (e.g. total station), extraterrestrial (e.g. GPS) measurements, remote sensing, and interview (i.e. toponymy). Furthermore, they can process the data and analyze the results of those measurements. Students will able to create a detail and accurate map and report the results as a book and presentation. Field camp is also a community service from the department of geomatics engineering. The outcomes of all measurements are a large scale map that can be used by the local community in the selected regions.

EXPECTED LEARNING OUTCOME

C	Able to identify, formulate, analyze and solve problems in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.
D	Able to perform spatial data acquisition using modern measurement methods, geospatial data processing, using industry standard software, and making standard designs and analyzes in the fields of geodesy, surveying, hydrography, remote sensing,
E	Able to apply information & communication technology and the latest technological developments in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, geographic information systems, and cadastral.
F	Able to compile scientific reports and provide solutions based on leadership, creativity and communication skills as well as being responsible for the work done.
G	Able to plan, perform and evaluate the process of surveying and mapping activities using the latest technology in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.
H	Able to work in inter-disciplinary and inter-cultural teams so they can compete at national and international levels.

COURSE LEARNING OUTCOME

1	Able to do the work of land surveying and mapping in the selected regions
2	Able to create a map based on the theory and right procedure with many methods (e.g. terrestrial and remote sensing)
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COURSE MATERIALS

1	Introduction to field camp
2	Methods of land surveying in terrestrial, extraterrestrial, and remote sensing
3	Methods of data processing in terresrial, extraterrestrial, and remote sensing
4	Survey of geographical place names and the study of place names (toponymy)
5	Cartography and presenting the regional potential map

PREREQUISITE

Advanced terrestrial mapping, digital cartography, global navigation satellite system (GNSS) survey, and remote sensing

REFERENCES

A.	Main References
1	Wolf. 2010. Elementary Surveying
2	Abidin, H.Z., 2005, Survei Satelit
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B.	Additional References
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