DEPARTMENT OF GEOMATICS ENGINEERING
UNDERGRADUATE PROGRAM IN GEOMATICS ENGINEERING
COURSE SYLLABUS

COURSE	Name	Final Project
	Code	RM184831
	Credits	6 (six)
	Semester	VIII (eight)

COURSE DESCRIPTION

Final Project is a scientific work based on a research or design activity, arranged in one semester, under the guidance of a supervisor and can be assisted by a supervisor. The supervisor here plays the role of facilitator, director, and one who determines the idea of implementing the Final Project. The team of examiners conducts an assessment in terms of report writing, scientific material, attitudes in maintaining ideas and presenting the final project. By preparing the Final Project students are expected to be able to summarize, apply, pour, solve all knowledge, skills, ideas and problems in a particular field of expertise / field of study systematically, logically, critically and creatively based on the accurate data / information and supported by accurate data / information with the right analysis.

EXPECTED LEARNING OUTCOME

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,
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.
I	Able to be responsible to the community and adhere to professional ethics in solving technical problems in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, geographic information systems, and cadastral.

COURSE LEARNING OUTCOME

1	Able to formulate the research problems and make a designs in survey and mapping activities based on certain Indonesian National Standards (SNI) standards from the National Standardization Agency (BSN) and the International Organization for Standardization (ISO).
2	Able to carry out research by applying information & communication technology in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, geographic information systems, and cadastral.
3	Able to carry out quantitative and qualitative evaluations, draw clear conclusions and recommend the results of research to the interested parties from various sectors and fields with the solution of the problem.
4	Able to make research reports ranging from the preparation of research designs, implementation of research to study and evaluation.
5	Being able to present the results of the final project responsibly in a seminar forum and defend it in an oral examination in front of examers team.

COURSE MATERIALS

1	The standard for surveying and mapping both the Indonesian National Standard (SNI) from the National Standardization Agency (BSN) and the International Organization for Standardization (ISO) eg SNI 8473: 2018 on Surveying and Mapping of Semidetail Land with a scale of 1: 50,000, SNI ISO 19111_2011 on Geographic Information - Spatial Reference with Coordinates, SNI Surta Number RSNI3 7657: 2010 concerning Hydrographic Survey, SNI Surta Number SNI_19-7149 of 2005 concerning Gravity Control Networks, and others.
2	Application of information & communication technology in the fields of geodesy, surveying, hydrography, remote sensing, photogrammetry, geographic information systems, and cadastral in conducting research.
3	Application of calculation methods related to the topic of the final project, study and evaluation of results and the research process to solve the problem.
4	Making research reports ranging from the preparation of research designs, implementation of research to study and evaluation.
5	Presentation of the results of the final project responsibly in seminar forums and hearings.

PREREQUISITE

Already / currently undertaking Research Methodology, the number of passed credit is a minimum of 110 SKS

REFERENCES

A.	Main References
1	Departemen Teknik Geomatika. 2013. Aturan Penyusunan Tugas Akhir. Institut Teknologi Sepuluh Nopember. Surabaya.
2	Kantor Penjaminan Mutu Institut Teknologi Sepuluh Nopember. 2017. Panduan Tugas Akhir. Surabaya.
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B.	Additional References
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