



**DEPARTMENT OF GEOMATICS ENGINEERING
UNDERGRADUATE PROGRAM IN GEOMATICS ENGINEERING
COURSE SYLLABUS**

COURSE	Name	Research Methodology
	Code	RM184727
	Credits	2 (two)
	Semester	VII (seven)

COURSE DESCRIPTION

This course aims to equip students with the knowledge, understanding and application of various research methods in the context of preparing the Final Project (TA). The lecture discusses various types of research, procedures of scientific research from determining topics, identifying problems, reviewing the literature, determining the focus of the problem, determining variables, design and methods, data collection techniques, analysis and conclusion drawing. The writing in the proposal and the TA book are the learning outcomes of this course.

EXPECTED LEARNING OUTCOME

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.
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.
J	Able to apply the concepts of management, entrepreneurship, the latest technology-based innovation, sustainable and environmentally sound.

COURSE LEARNING OUTCOME

1	Being able to compile scientific reports based on research procedures that are appropriate to the topic or problem of the Final Project.
2	Able to be responsible to the public in solving technical problems in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, geographic information systems, and cadastres in accordance with professional ethics.
3	Able to carry out research in the fields of geodesy, surveying, hydrography, remote sensing, photogrammetry, geographic information systems, and cadastres in a sustainable and environmentally friendly manner.

COURSE MATERIALS

1	Types of research
2	Research procedures
3	Problem identification
4	Theoretical foundation and hypothesis formulation
5	Research variable
6	Design and research methods
7	Data collection technique
8	Structure of proposal and Final Project report (TA)
9	Presentation technique

PREREQUISITE

Field Work (at least D)

REFERENCES

A.	Main References
1	Jurusan Teknik Geomatika ITS. 2013. Aturan Penyusunan Tugas Akhir. Institut Teknologi Sepuluh Nopember. Surabaya
2	Kantor Penjaminan Mutu ITS. 2017. Panduan Tugas Akhir. Institut Teknologi Sepuluh Nopember. Surabaya
3	Patton, Michael Quinn. 1990. Qualitative Evaluation and Research Methods (Second Edition). Sage Publications,
4	Sukardi, 2004. Metodologi Penelitian Pendidikan, Percetakan Bumi Aksara. Jakarta.
5	
B.	Additional References
1	Saifuddin Azwar, 1999, Metode Penelitian, Percetakan Pustaka Pelajar: Yogyakarta
	Colorado State University (CSU). Undated. An Introduction to Research Process.
2	http://writing.colostate.edu/references
3	

