COURSE	**Course Name**	: Final Project Proposal
	Course Code	: VI231629
	Credit	: 2 SKS
	Semester	: VI

DESCRIPTION OF COURSE
In this course students learn about the principles and research methods that will be used later when conducting final project research. Students learn the meaning of knowledge, science and philosophy and ethics in research, formulate problems, create hypotheses, create research designs according to the method they choose, collect and process measurement data and prepare research proposals.
LEARNING OUTCOMES
▪ Able to study cases of the application of science and technology in the field of expertise according to work competency standards, and able to make appropriate decisions from the results of one's own work or group work in the form of final assignment reports or other forms of learning activities whose output is equivalent to the final assignment through logical thinking, critical, innovative, quality and measurable by considering health, safety, security and the environment. (CPL-2) ▪ Able to communicate, write reports and make presentations effectively. (CPL-4) ▪ Able to understand and evaluate the sustainability impact of Instrumentation engineering technology work on the environment and society. (CPL-11) ▪ Demonstrate knowledge and understanding of engineering management principles and apply them to one's own work as both a member and leader of a team to manage projects in a multidisciplinary environment. (CPL-12)

COURSE LEARNING OUTCOME
▪ Students are able to explain principles and ethics in research ▪ Students are able to formulate problems and develop research hypotheses with a solution approach orientation through appropriate technology (TTG) ▪ Students are able to accurately review previous research that is linear to the research topic they will be working on. ▪ Students are able to explain various research methods ▪ Students are able to collect, process data and interpret the results logically and systematically ▪ Students are able to prepare research proposals and present them
MAIN SUBJECT
▪ Introduction Understanding Proposals and Seminars ▪ Proposal Structure and Systematics ▪ Title Selection ▪ Background of the problem ▪ Identify problems ▪ Problem formulation and limitations ▪ Goals and benefits ▪ Basic Theory/Literature Review ▪ Research Methodology ▪ Design and realization ▪ Conclusions and suggestions ▪ Library
PREREQUISITES
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REFERENCE

Books:

1. Panduan Tugas Akhir Departemen Teknik Instrumentasi ITS-FV
2. Buku Panduan Tugas Akhir, Kantor Penjaminan Mutu ITS Tahun 2017
3. Buku Pedoman Penyusunan Tesis Program Studi Magister, Direktorat Akademik ITS, Tahun 2018
4. Blessing, L. C. (2009). DRM a Design Research Methodology. London: Springer.
5. Soetriono, & Rita. (2007). Filsafat Ilmu dan Metodologi Penelitian. Yogyakarta: Andi Offset.
6. Sugiyono. (2012). Statistika untuk penelitian. Bandung: Alfabeta.
7. Sugiyono. (2013). Metode Penelitian Kombinasi (Mixed Methods). Bandung: Alfabeta.
8. Suryabrata, & Sumadi. (2008). Metodologi Penelitian. Jakarta: Rajawali Press.