	INSTITUT TEKNOLOGI SEPULUH NOPEMBER FACULTY OF CIVIL PLANNING AND GEO ENGINEERING GEOPHYSICAL ENGINEERING DEPARTMENT UNDERGRADUATE PROGRAM (S1)	
Course	**Course Name**	**Mapping**
	Course Code	**CF234102**
	Credit (SKS)	**2 (Two)**
	Semester	**1 (One)**
COURSE DESCRIPTION		
This course examines geospatial information and its use. Students will study one of the main objectives in science and technology in the field of spatial information and can support Geophysical Engineering work, namely Introduction to Geospatial Information. Through this lecture, students can find out about the science and technology available at the Faculty of Civil, Environmental and Earth Engineering		
PROGRAM LEARNING OUTCOMES (PLO)		
PLO-4	Able to explain the principles of mathematics, natural sciences, geology, geospatial, instrumentation, information technology, engineering principles and designs into geophysical engineering procedures, processes, systems or methodologies.	
COURSE LEARNING OUTCOMES (CLO)		
CLO-1	Able to analyze and interpret spatial data using geospatial information science and technology	
CLO-2	Able to present spatial data using geospatial information science and technology	
SUB COURSE LEARNING OUTCOMES (SUB CLO)		
Sub CLO-1	[C4,P4,A4] Able to explains the concept of cartography, including the meaning of maps, the position of a place and the purpose of cartography	
Sub CLO-2	[C4, P4, A4] Able to explain simple map making procedures	
Sub CLO-3	[C4, P3, A3] Able to design simple map layouts	
Sub CLO-4	[C4,P3,A3] Be able to make a map from a series of available data (secondary data)	
STUDY MATERIALS		
Basic geospatial concepts can support the work of Civil Engineering, Environmental Engineering, Geomatics Engineering and Geophysical Engineering		
PRECONDITION		
Introduction to Geospatial Information		
REFERENCES		
1. Aronoff, S. 1989. Geographic Information Systems: A Management Perspective. Ottawa, Canada:WDL Publications. 2. Brovelli, MA and D. Magni. An Archaeological Web Gis Application Based On Mapserver And 3. Burrough, PA Dan McDonnell, RA 1998. Principles of Geographical Information Systems. New York: Oxford University Press 4. Fleming, C., (ed.), 2005. The GIS Guide for Local Government Officials. ESRI Press. Redlands. 5. 5. Muljo Sukojo, B., 2017. Introduction to Geospatial Information, Department of Geomatics Engineering FTSLK ITS Surabaya		