<table>
<tr><td rowspan="4"></td><td colspan="3">DEPARTMENT OF GEOMATICS ENGINEERING
UNDERGRADUATE PROGRAM IN GEOMATICS ENGINEERING
COURSE SYLLABUS</td></tr>
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COURSE	Name	Introduction to Geospatial Information
	Code	RW184901
	Credits	2 (two)
	Semester	I (satu)

COURSE DESCRIPTION

To manage and utilize data that has spatial information (spatial reference or georeference) for scientific investigations, resource management, development planning, and problem solving related to spatial aspects of an area. To understand Geospatial Information it is necessary to know the Definition, History and Development, Components, Geospatial, Scope, Utilization of Geospatial Information in Various Fields.

EXPECTED LEARNING OUTCOME

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.
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 understand the Definition of Geospatial Information, Use of Geospatial Information, Geospatial Information Capability, History and Early Development of Geospatial Information, Development of Geospatial Information in Indonesia, Implementation of Geospatial Information in Indonesia, Geospatial Information Network Nodes, Network Node Types, Network Governance , Walidata and Owner, Integrated Geospatial Information Architecture, Integration of the Node, Development of OpenSource-based IG Dissemination Technology, Palapa Architecture, Ina-Geoportal Development, Problems and Challenges.
2	Able to understand Geospatial Information Components: Hardware, Software, Data, Spatial Data, Non-Spatial Data (Attributes), Human, GIS Method, Consistency.
3	Able to understand the scope of Geospatial Information: Geospatial Information Processes, Data Input, Data Manipulation, Data Management, Query and Visualization Analysis Spatial Data Sources, Georefical Infrastructure Georeference Data, Geodetic Projection Systems, Remote Sensing, Topographic, GIS, WebGIS, Systems, Database Structural Sources , Geospatial Information Services (Ina-Geoportal), Ina-Geoportal network node structure, Geospatial Information Services Structure in Ina-Geoportal, International Standards (ISO), International Standards (ISO) Geospatial Information, Types of International Standards (ISO) Information Geospatial.
4	Able to understand Geospatial Information Utilization in Various Areas: Land Use Management, Natural Resource Inventory, Natural Disaster Areas, Geospatial Information for Regional and Municipal Planning, Geospatial Information for Archeology, WebGIS Application, Web-based GIS for Housing and Settlement Areas, WebGIS To Support Regional Spatial Planning, WebGIS for Main Data on City Development, WebGIS for Archaeologists, Making Archaeological Geospatial Information, WebGIS Attribute Data Processing, WebGIS Based Tourism, Analysis of Web GIS Tourism Making, Analysis of Results for Defining Map Configurations, WebGIS-based Marine.

COURSE MATERIALS

1	Definition, History and Development of Geospatial Information.
2	Geospatial Information Component.
3	Geospatial, Geospatial Information Scope.
4	Utilization of Geospatial Information in Various Fields.

PREREQUISITE

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REFERENCES

A.	Main References
1	Sukojo, B.M. Pengantar Informasi Geospasial, 2017, Departemen Teknik Geomatika ITS, Surabaya
2	Aronoff, S. 1989. Geographic Information Systems: A Management Perspective. Ottawa, Canada:WDL Publications.
3	Burrough, P. A. Dan McDonnell, R. A. 1998. Principles of Geographical Information Systems. New York: Oxford University Press
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B.	Additional References
1	Charter, D. 2004. Desain dan Applikasi GIS, Jakarta:PT. Elex Media Komputindo.
2	Darmawan, M., dkk., 2013, Panduan Pembangunan Simpul Jaringan, Badan Informasi Geospasial.
3	GeoConnections, 2008, The Dissemination of Government Geographic Data in Canada: Guide to Best Practices.
4	Fleming, C., (ed.)., 2005. The GIS Guide for Local Government Officials. ESRI Press. Redlands.