



DEPARTMENT OF GEOMATICS ENGINEERING
UNDERGRADUATE PROGRAM IN GEOMATICS ENGINEERING
COURSE SYLLABUS

COURSE	Name	Three Dimesional Cadastre
	Code	RM184953
	Credits	2 (two)
	Semester	Elective Course

COURSE DESCRIPTION

In this course, students learn about the registration system for property rights of space. The implementation of the right of ownership of flats is the focus of this subject, especially in Indonesia. The registration system of right to space which is implemented broadly in several contries is also studied as comparison. This course also studies about the data acquisition techniques and methods which are then visualized in 3 dimensions using software that supports this.

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.

COURSE LEARNING OUTCOME

1	Students are able to explain the concepts and principles of the registration system of rights to space (3-D Cadastre)
2	Students are able to explain the legal / regulatory basis that applies in Indonesia for the activities of the registration system of rights to space and its implementation
3	Students are able to explain the techniques and methods of acquiring spatial data in a 3-dimensional cadastral framework
4	Students are able to visualize 3-dimensional spatial data using certain software
5	Students are able to explain the implementation of 3-dimensional cadastral in several countries as a comparison
6	Students are able to compile reports and present 3-dimensional cadastral registration systems verbally and in writing

COURSE MATERIALS

1	The concept and understanding of 3D Dimension
2	Registration system of Rights to Flats in Indonesia
3	Right to Spatial Registration System in several countries other than Indonesia
4	The future of space ownership systems (need for 3D cadastre)
5	3-D Cadastral Modeling using UML
6	3 Dimensional Spatial Database System Modeling
7	Visualization and future opportunities for 3-dimensional spatial data

PREREQUISITE

RM184520 - Digital Photogrametry

REFERENCES

A.	Main References
1	Undang-undang No. 20 Tahun 2011 Tentang Rumah Susun
2	Stoter, J., Oosterom, P., 2006, 3D Cadastre in an International Context Legal, Organizational, and Technological Aspects, CRC Press is an imprint of Taylor & Francis Group, USA
B.	Additional References
1	http://www.gdmc.nl/3dcadastres/literature/

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| 2 | FIG, 2018a, Best Practises 3D Cadastres - Extended Version, International Federation of Surveyors (FIG), Copenhagen, Denmark |
| 3 | FIG, 2018b, Best Practises 3D Cadastres - FIG Report, International Federation of Surveyors (FIG), Copenhagen, Denmark |