

<b>Course</b>	<b>Course Name</b>	Planning Information System GIS
	<b>Course Code</b>	DK184304
	<b>Credit</b>	3
	<b>Semester</b>	III

<b>Description of Course</b>	
<p>This course contains comprehension and mastery using both computer tools (hardware) and software on the collecting techniques, processing, and analyzing data for planning, so that students with the help of computers are able to collect, manage, and analyze data, so that these data can be useful inputs in the preparation of spatial plans and other planning products.</p>	
<b>Learning Outcomes</b>	
<b>Knowledge</b>	<p>1.1 Mastering the theoretical concept of urban and regional planning in the aspects of urban studies, regional studies, spatial science, data science &amp; computer application, socio-political, environmental management, built environment design, infrastructure and transportation system, coastal studies, management, economics.</p> <p>1.3 Mastering the methods of spatial/aspatial planning in decision-making.</p>
<b>Specific Skill</b>	<p>2.2 Able to utilize ICT in the management of data to produce information that is easily understood by the public and the decision makers.</p> <p>2.3 Able to describe the spatial characteristics of urban, regional and coastal area through the linkage analyze of spatial and aspatial aspects so that provide the information as the basis for drawing up planning model</p> <p>2.4 Able to compile an alternative spatial model through a qualitative and quantitative approach in the form of scenarios setting the pattern of space and structure of urban, regional, and coastal area as well as propose the appropriate solutions</p>
<b>General Skill</b>	<p>3.2 Able to demonstrate independent, quality and scalable performance</p>

	3.3 Able to examine the implications of the development or implementation of science and technology by considering and applying the suitable value of humanities in accordance with their expertise based on rules, procedures and the scientific ethic in order to produce solutions, ideas, design or art critique
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**Course Learning Outcomes**

1. Students are able to understand the concept of spatial utilization in Planning Information System and understand the implementing method in spatial planning.
2. Students are able to give and share information and present the planning result into information system for publication matter.
3. Students are able to arrange recommendation instruction of land utilization by using decision making techniques provided by GIS.

**Main Subject**

1. Definition and basic concept of Planning Information System
2. Planning Support System (PSS) by using GIS
3. Decision Support System (DSS) & Negotiation Support System (NSS)
4. Buffer analysis
5. Query Builder analysis
6. Reclassification analysis
7. Intersect and weighted spatial method Metode Irisan dan pembobotan Spasial
8. Intersect analysis
9. Weighted spatial analysis (Weighted Sum)
10. On field data collecting

**Prerequisite**

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**References**

1. Aronov, Stan [1991], "Geographic Information Systems: a management perspective", WDL Publications, Ottawa, Ontario, Canada.
2. Clark, Keith C. [1997] "Getting Started with Geographic Information System", Prentice Hall Series in Geographical Information Science, New Jersey, USA.
3. Cowen, D.J. and W.L. Shirley [1991], "Integrated Planning Information System" in D. Maguire, M.F.R. Goodchild and D.W.

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4. Geographical Information Systems: principles and applications, Longman Scientific & Technical, John Wiley & Sons, USA, Vol II.
  5. Elgendy, Hany [2003], "Development and Implementation of Planning Information Systems in Collaborative Spatial Planning Processes", dissertation in Institute of Urban and Regional Planning – University of Karlsruhe, Germany.
  6. Geertman, Stan, and John Stillwell [2009]. "Planning Support Systems, Best Practice and New Methods." The GeoJournal Library 95.
  7. Laurini, R. [2001]. "Information Systems for Urban Planning: A Hypermedia Cooperative Approach." Geographic Information Systems Workshop Series. Taylor & Francis. "