

<b>Course</b>	<b>Course Name</b>	Transportation System
	<b>Course Code</b>	DK184302
	<b>Credit</b>	3
	<b>Semester</b>	III

<b>Description of Course</b>	
<p>The course of transportation system is delivered in semester 4. Participants of the course are students who have passed the subjects of Land Use. This course examines transportation systems, transport and land use integration, accessibility and mobility concepts, system-based transportation problems, and TOD approaches, and the introduction of coastal transport systems.</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>1.2 Mastering the techniques and processes of urban and regional planning in qualitative, quantitative, spatial modeling (geographic information systems) and presentation techniques.</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>
<b>Course Learning Outcomes</b>	
<b>Knowledge</b>	<ol style="list-style-type: none"> <li>1. Students are able to apply the principles of transportation system approach in understanding the problems of city / region / coastal transportation</li> <li>2. Students are able to explain the role of transportation system with LUTI perspective</li> </ol>

	in forming space structure and its relation to spatial pattern
<b>Skill</b>	<ol style="list-style-type: none"> <li>1. Students are able to apply LUTI framework in identifying transportation solution to transportation problem</li> <li>2. Students are able to measure accessibility and mobility based on transportation problem</li> <li>3. Students are able to communicate verbally, visually and in writing using ITC</li> <li>4. Able to apply logical, critical, systematic, and innovative thinking in the context of development or implementation of science and technology that concerns and implements the value of humanities in accordance with their areas of expertise</li> </ol>
<b>Course Goals Based on Module</b>	
Introduction to Transportation System	<ol style="list-style-type: none"> <li>1. Students are able to understand the components of the transportation system and the interrelationships between components of the transportation system</li> <li>2. Students are able to identify transportation problems (city / region / coastal area) with approach of transportation system</li> </ol>
Transportation System and Land Use	<ol style="list-style-type: none"> <li>1. Students are able to understand the LUTI aspect in forming space</li> <li>2. Students are able to analyze transportation problems in LUTI framework</li> </ol>
Accessibility and Mobility	<ol style="list-style-type: none"> <li>1. Students are able to identify appropriate accessibilities and mobility measurement methods based on transportation problems</li> <li>2. Students are able to understand data types, collect data, and process data in calculating accessibility and mobility based on transportation problems</li> </ol>
Study Case: Urban system based transportation problems	<ol style="list-style-type: none"> <li>1. Students are able to formulate solutions to transportation problems with system approach in accessibility / mobility perspective</li> </ol>

Special case: introduction to coastal transportation system with transportation system approach	1. Students are able to identify solutions to coastal transportation matters with system approach
<b>Main Subject</b>	
<b>Introduction to Transportation System</b>	BK 28 Infrastructure concept, BK29 Standard of infrastructure services, BK30 Needs and provision analysis, BK12 Approach and quantitative analytical techniques, BK46 Space theory and concept.
<ol style="list-style-type: none"> <li>1. Introduction of transportation system</li> <li>2. Transportation system and land use</li> <li>3. Accessibility and mobility</li> <li>4. Case study: urban transportation-based system problems</li> <li>5. Special case: Introduction of coastal transportation problem with approach of transportation system</li> </ol>	
<b>Prerequisite</b>	
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<b>References</b>	
<ol style="list-style-type: none"> <li>1. Miro, Fidel (1997), Sistem Transportasi Kota, Tarsito, Bandung.</li> <li>2. Stopher, Peter &amp; Meyburg, Arnim H. (1975), Urban Transportation Modeling and Planning, Lexington Books, Canada.</li> <li>3. Alamsyah, Alik Ansyori ( 2008), Rekayasa Lalu Lintas, Edisi Revisi, UPT Penerbitan UNMUH, Malang.</li> <li>4. Curtis, Carey., Renne, John L., &amp; Bertolini, Luca (2009), Transit Oriented Development: Making it Happen, Ashgate Publishing Company, Great Britain.</li> </ol>	