

CP234755 – Advanced Planning Information System

Module Name	Advanced Planning Information System
Module level, if applicable	Advance BoURP
Code, if applicable	CP234755
Subtitle, if applicable	-
Course, if applicable	Advanced Planning Information System
Semester(s) in which the module is taught	7 th Semester
Person responsible for the module	Cahyono Susetyo, S.T., M.Sc., Ph.D
Lecturer	Cahyono Susetyo, S.T., M.Sc., Ph.D
Language	Indonesian, English
Relation to curriculum	Electives Courses for undergraduate program in Urban and Regional Planning
Type of teaching, contact hours	M1: Group Discussion M3: Study Case M5: Cooperative Learning Lecture (Face to face lecture): 2.5 hours x 14 weeks 35 hours per semester
Workload	Elective (3 SKS) Class: 2.5 hours x 14 weeks = 35 hours Structured activities: 4 hours x 14 weeks = 56 hours Independent Study: 3 hours x 14 weeks = 42 hours Exam: 1.5 hours x 4 time = 6 hours Total = 133 hours
Credit points	3 SKS ~ 4.8 ECTS
Requirements according to the examination regulations	Registered in this course Minimum 80% attendance in this course
Recommended prerequisites	-
Module objectives/intended learning outcomes	General Knowledge: 1. Able to comprehend qualitative, quantitative, and spatial modeling (geographic information system) techniques and processes in urban and regional planning, as well as presentation skills. 2. Able to apply planning formulation techniques and develop an alternative spatial models through qualitative and quantitative approaches in the form of scenarios for spatial pattern and structure of urban, regional, and coastal areas.

	<ol style="list-style-type: none"> 3. Able to analyze the potential and issue of both spatial and non-spatial contexts in urban, regional, and coastal areas through an analysis of interrelations between spatial and non-spatial aspects. 4. Able to formulate planning concepts and direction plans through the study of strategic issues within the context of urban, regional, and coastal areas with an understanding of planning issues through observations and utilization of physical/spatial, social, economic, and environmental data. <p>Specific Knowledge:</p> <ol style="list-style-type: none"> 1. Students are able to explain the concept and implementation of remote sensing for planning purposes 2. Students are able to explain the concept of spatial data in Raster format and apply the Raster Calculator Analysis 3. Students are able to explain and apply the Model Builder concept 4. Students are able to explain and develop web-based GIS applications 																														
Content	<ol style="list-style-type: none"> 1. Raster format spatial data concept 2. Raster data analysis using "Raster Calculator" 3. Model builder concept 4. Concept of satellite image data and remote sensing 5. Characteristics of satellite image data 6. Remote sensing principles and philosophy 7. Spatial linear regression analysis 8. Web-GIS 																														
Study and examination requirements and forms of examination	<p>9 assessments:</p> <table border="1" data-bbox="711 1451 1342 1872"> <thead> <tr> <th>Evaluation</th> <th>Method</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Practice</td> <td>15%</td> </tr> <tr> <td>2</td> <td>Practice</td> <td>15%</td> </tr> <tr> <td>3</td> <td>Practice</td> <td>10%</td> </tr> <tr> <td>4</td> <td>Report</td> <td>10%</td> </tr> <tr> <td>5</td> <td>Practice</td> <td>10%</td> </tr> <tr> <td>6</td> <td>Report</td> <td>10%</td> </tr> <tr> <td>7</td> <td>Practice</td> <td>10%</td> </tr> <tr> <td>8</td> <td>Report</td> <td>10%</td> </tr> <tr> <td>9</td> <td>Report</td> <td>10%</td> </tr> </tbody> </table> <ol style="list-style-type: none"> 1. Practice - week 3 2. Practice - week 5 3. Practice - week 7 	Evaluation	Method	Weight	1	Practice	15%	2	Practice	15%	3	Practice	10%	4	Report	10%	5	Practice	10%	6	Report	10%	7	Practice	10%	8	Report	10%	9	Report	10%
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	<p>4. Report - week 8</p> <p>5. Practice - week 11</p> <p>6. Report - week 12</p> <p>7. Practice - week 13</p> <p>8. Report - week 13</p> <p>9. Report – week 14</p>
Media employed	Classical teaching tools with white board and power point presentation, audiovisual, zoom meeting, ITS online classroom.
Reading list	<p>Main References:</p> <ol style="list-style-type: none"> 1. Simth M., Goodchild M.F., Longley P.A. (2013) Geospatial Analysis, A Comprehensive Guide to Principles, Techniques and Software Tools. 2. Petit C., Cartwright W., Bishop I., Kowell K., Pullar D., Duncan D. (2008) Landscape Analysis and Visualisation. Spatial Models for Natural Resource Management and Planning. Springer <p>Supporting References:</p> <p>-</p>