



**Universitas Negeri Surabaya**  
**Faculty of Economics and Business**  
**Digital Business Undergraduate Study Program**

**Document Code**

**SEMESTER LEARNING PLAN**

<b>Courses</b>	<b>CODE</b>	<b>Course Family</b>	<b>Credit Weight</b>			<b>SEMESTER</b>	<b>Compilation Date</b>																																																																																																				
Data analytics	6120903034	Compulsory Study Program Subjects	T=0	P=1	ECTS=1.59	5	July 18, 2024																																																																																																				
<b>AUTHORIZATION</b>	<b>SP Developer</b>		<b>Course Cluster Coordinator</b>			<b>Study Program Coordinator</b>																																																																																																					
	Muhammad Fajar Wahyudi Rahman, S.E., M.M.		Riska Dhena Bayu S.Kom., M.M.			Hujjatullah Fazlurrahman, S.E., MBA.																																																																																																					
<b>Learning model</b>	<b>Project Based Learning</b>																																																																																																										
<b>Program Learning Outcomes (PLO)</b>	<b>PLO study program that is charged to the course</b>																																																																																																										
	<b>Program Objectives (PO)</b>																																																																																																										
	<b>PO - 1</b>	Able to select and carry out Data Analytics activities that are appropriate to the context of the business problems faced																																																																																																									
	<b>PO - 2</b>	Students are able to understand the basics, functions and benefits of data analysis by identifying and selecting appropriate and reputable research questionnaire items and tabulating data in MS. Excel.																																																																																																									
	<b>PO - 3</b>	Students are able to analyze data and interpret the results of data analysis using Orange Data Mining for decision-making processes in business																																																																																																									
	<b>PO - 4</b>	Students are able to analyze data and interpret the results of data analysis using Partial Least Square Structural Equation Modeling (PLS-SEM) for decision-making processes in business.																																																																																																									
	<b>PLO-PO Matrix</b>																																																																																																										
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<b>PO Matrix at the end of each learning stage (Sub-PO)</b>																																																																																																											
	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">P.O</th> <th colspan="16">Week</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th> </tr> </thead> <tbody> <tr><td>PO-1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>PO-2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>PO-3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>PO-4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>						P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	PO-1																	PO-2																	PO-3																	PO-4																
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<b>Short Course Description</b>	This course is integrated into the MBKM internship. The Data Analytics course places more emphasis on providing material that provides an understanding of the selection of data analysis techniques that are generally used and utilized in the decision-making process in business. The programs used are MS Excel, Orange Data Mining and Smart-PLS 3/4, both in the fields of finance, marketing and human resources. This program is used to solve business problems using logic functions, financial planning, marketing strategies, HR planning based on output results that have been processed through data processing and data interpretation. Based on comprehensive data analysis, it will be useful for digital marketing, technopreneur and digital business consultant concentrations.																																																																																																										
<b>References</b>	<b>Main :</b>																																																																																																										

		<ol style="list-style-type: none"> <li>Garson, G. D. (2016). Partial least squares: Regression &amp; structural equation models (2016th ed.). G. David Garson and Statistical Associates Publishing.</li> <li>Ghozali, I., &amp; Latan, H. (2015). Partial least squares: Konsep, teknik dan aplikasi menggunakan SmartPLS 3.0 (untuk penelitian empiris) (2nd ed.). Badan Penerbit Universitas Diponegor</li> <li>Sekaran, U., &amp; Bougie, R. (2016). Research Methods for Business: A Skill-Building Approach (Seventh). John Wiley &amp; Sons.</li> </ol>					
		<b>Supporters:</b>					
		<ol style="list-style-type: none"> <li>Hair, J. F., Ringle, C. M., &amp; Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing theory and Practice, 19(2), 139-152.</li> </ol>					
<b>Supporting lecturer</b>		Riska Dhenabayu, S.Kom., M.M. Renny Sari Dewi, S. Kom., M. Kom., MCE., MOS. Muhammad Fajar Wahyudi Rahman, S.E., M.M.					
Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [ Estimated time]		Learning materials [ References ]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline ( offline )	Online ( online )		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	<ol style="list-style-type: none"> <li>Students are able to understand the basics, functions and benefits of data analysis</li> <li>Students are able to identify and select appropriate and reputable research questionnaire items</li> </ol>	<ol style="list-style-type: none"> <li>Understand the basics, functions and benefits of data analysis</li> <li>Identify and select appropriate and reputable questionnaire items</li> <li>Tabulating data on MS. Excel is good and correct</li> </ol>	<b>Criteria:</b> Accuracy, suitability and mastery  <b>Form of Assessment :</b> Participatory Activities	Lectures and Practicum 3x50	Lectures and Practicum 3x50		5%
2	<ol style="list-style-type: none"> <li>Students are able to analyze data using Orange Data Mining</li> <li>Students are able to interpret the results of data analysis using Orange Data Mining</li> </ol>	<ol style="list-style-type: none"> <li>Display research data, news text, public opinion text, work program text and so on using Orange Data Mining</li> <li>Perform, display visual programming and interpret test results using Orange Data Mining</li> </ol>	<b>Criteria:</b> Accuracy, suitability and mastery  <b>Form of Assessment :</b> Participatory Activities	Lectures and practicum 3x50	Lectures and Practicum 3x50		5%

3	<p>1. Students are able to analyze data using Partial Least Square Structural Equation Modeling (PLS-SEM)</p> <p>2. Students are able to interpret the results of data analysis using Partial Least Square Structural Equation Modeling (PLS-SEM)</p>	<p>1. Carry out and interpret the results of measurement model/outer model tests consisting of convergent validity, discriminant validity, composite reliability and Cronbach's alpha with Smart-PLS 3/4</p> <p>2. Carrying out and interpreting the results of structural model/inner model tests consisting of r-square and bootstrapping procedures with Smart-PLS 3/4</p> <p>3. Perform and interpret Goodness of Fit test results with Smart-PLS 3/4</p>	<p><b>Criteria:</b> Accuracy, suitability and mastery</p> <p><b>Form of Assessment :</b> Participatory Activities</p>	Lectures and Practicum 3x50	Lectures and Practicum 3x50		5%
4	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<p><b>Criteria:</b> Accuracy, suitability and mastery</p> <p><b>Form of Assessment :</b> Practice / Performance</p>	Field Work Practices 3x50	Field Work Practices 3x50		5%
5	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<p><b>Criteria:</b> Accuracy, suitability and mastery</p> <p><b>Form of Assessment :</b> Practice / Performance</p>	Field Work Practices 3x50	Field Work Practices 3x50		5%
6	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<p><b>Criteria:</b> Accuracy, suitability and mastery</p> <p><b>Form of Assessment :</b> Practice / Performance</p>	Field Work Practices 3x50	Field Work Practices 3x50		5%
7	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<p><b>Criteria:</b> Accuracy, suitability and mastery</p> <p><b>Form of Assessment :</b> Practice / Performance</p>	Field Work Practices 3x50	Field Work Practices 3x50		5%
8	Prepare Internship Activity Plan Reports	Students are able to explain the Activity Plan Report (LRK) and the potential for data collection for Data Analytics	<p><b>Criteria:</b> Accuracy, suitability and mastery</p> <p><b>Form of Assessment :</b> Practice / Performance</p>	Field Work Practice 2x50	Field Work Practice 2x50		10%

9	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Practice / Performance	Field Work Practices	Field Work Practices		5%
10	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Practice / Performance	Field Work Practices	Field Work Practices		5%
11	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Practice / Performance	Field Work Practices	Field Work Practices		5%
12	Students Carry Out Monitoring and Evaluation	Explains the progress of data capture and data analysis for Data Analytics	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Field Work Practices 3x50	Field Work Practices 3x50		10%
13	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Practice / Performance	Field Work Practices 3x50	Field Work Practices 3x50		5%
14	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Practice / Performance	Field Work Practices 3x50	Field Work Practices 3x50		5%
15	Students Undertake Internships at Companies	Students are able to use Orange Data Mining or Smart-PLS as data analysis according to their work area	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Practice / Performance	Field Work Practices 3x50	Field Work Practices 3x50		10%
16	Students Conduct Internship Results Seminar	1.Compile Interactive Reports on Company User Engagement Data 2.Presenting the Final Activity Report (LAK) Data Analytics	<b>Criteria:</b> Accuracy, suitability and mastery <b>Form of Assessment :</b> Assessment of Project Results / Product Assessment, Practices / Performance	Field Work Practices and Presentations 2x50	Field Work Practices and Presentations 2x50		10%

#### Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	15%
2.	Project Results Assessment / Product Assessment	15%
3.	Practice / Performance	70%

### Notes

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
7. **Forms of assessment:** test and non-test.
8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
12. TM=Face to face, PT=Structured assignments, BM=Independent study.