



**Universitas Negeri Surabaya
Vocational Faculty,
D4 Informatics Management Study Program**

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date
Prac. Framework Programming	5730102184		T=0 P=2 ECTS=3.18	5	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	Case Studies
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Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																														
	Program Objectives (PO)																																														
	PLO-PO Matrix																																														
		P.O																																													
	PO Matrix at the end of each learning stage (Sub-PO)																																														
		<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2" style="width: 5%;">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> </table>														P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																															

Short Course Description This course examines various ways of implementing three important layers, namely; presentation layer, business logic layer, and persistence layer in building enterprise-scale applications using various desktop-based programming frameworks (such as J2EE or .NET) and web (such as CodeIgniter, CakePHP, Yii, Laravel, etc.). This course also teaches web service development

References	<p>Main :</p> <ol style="list-style-type: none"> 1. Deitel, H.M. and Deitel,P.J. 2009. Java How to Program, 10th Edition. New Jersey: Prentice Hall. 2. Michaelis, M. 2008. Essential C# 3.0 for .NET Framework 3.5. Microsoft.NET Development Series. Boston: Addison-Wesley. 3. Oberg, R.J. 2002. Introduction to C# Using .NET. New Jersey: Prentice Hall.. 4. Foster, R. 2015. CodeIgniter Web Application Blueprints. Birmingham: PACKT Publishing. 5. Watts, J., Gonzalez, J. 2014. CakePHP 2 Application Cookbook. Birmingham: PACKT Publishing.. 6. Makarov, A. 2013. Yii Application Development Cookbook - Second Edition. Birmingham: PACKT Publishing.. 7. Matula, T. 2013. Laravel Application Development Cookbook. Birmingham: PACKT Publishing. 8. Calvert, Charlie, & Kulkarni, Dinesh. 2009. Essential LINQ. Boston: Addison-Wesley Professional. 9. Kuate, Pierre Henri, et.al. 2009. NHibernate in Action. New York: Manning Publication. 10. Galloway, John, et.al. 2014. Professional ASP.NET MVC 5. Birmingham: Wrox 11. Alur, Deepak, et.al. 2003. Core J2EE Patterns Best Practices and Design Strategies (2nd Edition). New Jersey <p>Supporters:</p>
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Supporting lecturer Ari Kurniawan, S.Kom., M.T.
Hafizhuddin Zul Fahmi, S.Kom., M.Sc.
I Gde Agung Sri Sidhimantra, S.Kom., M.Kom.

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	Able to understand the course contract Able to understand the scope of the course and course competencies	-	Criteria: Holistic Rubric	Contextual Instruction 2 X 50			0%
2	Understand the importance of using a web framework. Be able to understand the tools/software used. Understand examples of applications created with a web framework	1.Explain the importance of using a web framework 2.Explain the tools/software used 3.Explains examples of applications created with a web framework	Criteria: Holistic Rubric	Contextual Instruction 2 X 50			0%
3	Able to understand the application of object programming on the web. Able to understand the integration of object programming with databases on the web. Able to apply object programming in simple cases	1.Explains the application of object programming on the web 2.Explains the integration of object programming with databases on the web 3.Explains the purpose of object programming in simple cases	Criteria: Holistic Rubric	- Contextual Instruction - Small project based learning 2 X 50			0%
4	Able to understand the application of object programming on the web. Able to understand the integration of object programming with databases on the web. Able to apply object programming in simple cases	1.Explains the application of object programming on the web 2.Explains the integration of object programming with databases on the web 3.Explains the purpose of object programming in simple cases	Criteria: Holistic Rubric	- Contextual Instruction - Small project based learning 2 X 50			0%
5	Able to understand the concept of MVC (Model View Controller) Able to explain the difference between MVC and HMVC architecture	1.Understand the concept of MVC (Model View Controller) 2.Explain the difference between MVC and HMVC architecture	Criteria: Holistic Rubric	Lecture, Discussion, Question and answer, Presentation 2 X 50			0%

6	Able to understand the concept of MVC (Model View Controller) Able to explain the difference between MVC and HMVC architecture	<ol style="list-style-type: none"> 1.Understand the concept of MVC (Model View Controller) 2.Explain the difference between MVC and HMVC architecture 	Criteria: Holistic Rubric	Lecture, Discussion, Question and answer, Presentation 2 X 50			0%
7	Able to understand the concept of MVC (Model View Controller) Able to explain the difference between MVC and HMVC architecture	<ol style="list-style-type: none"> 1.Understand the concept of MVC (Model View Controller) 2.Explain the difference between MVC and HMVC architecture 	Criteria: Holistic Rubric	Lecture, Discussion, Question and answer, Presentation 2 X 50			0%
8				2 X 50			0%
9	Able to understand the role of templates in a web framework Able to apply and create simple templates in a back-end application Able to apply and create simple templates in a front-end application Able to identify templates that suit the topic of the application being created	<ol style="list-style-type: none"> 1.Understand the role of templates in web frameworks 2.Implement and create simple templates in a back-end application 3.Implement and create simple templates in a front-end application 4.Identify templates that suit the topic of the application being created 	Criteria: Holistic Rubric	Contextual Instruction Small project based learning 2 X 50			0%
10	Able to understand the role of templates in a web framework Able to apply and create simple templates in a back-end application Able to apply and create simple templates in a front-end application Able to identify templates that suit the topic of the application being created	<ol style="list-style-type: none"> 1.Understand the role of templates in web frameworks 2.Implement and create simple templates in a back-end application 3.Implement and create simple templates in a front-end application 4.Identify templates that suit the topic of the application being created 	Criteria: Holistic Rubric	Contextual Instruction Small project based learning 2 X 50			0%

11	Able to understand the role of templates in a web framework Able to apply and create simple templates in a back-end application Able to apply and create simple templates in a front-end application Able to identify templates that suit the topic of the application being created	<ol style="list-style-type: none"> 1.Understand the role of templates in web frameworks 2.Implement and create simple templates in a back-end application 3.Implement and create simple templates in a front-end application 4.Identify templates that suit the topic of the application being created 	Criteria: Holistic Rubric	Contextual Instruction Small project based learning 2 X 50			0%
12	Able to understand how to handle files and images in a web framework Able to understand the types of files and images Able to implement file and image handling in simple applications	<ol style="list-style-type: none"> 1.Understand how to handle files and images in web frameworks 2.Understand the types of files and images 3.Implement file and image handling in simple applications 	Criteria: Holistic Rubric	Contextual Instruction Small project based learning 2 X 50			0%
13	Able to understand how to handle files and images in a web framework Able to understand the types of files and images Able to implement file and image handling in simple applications	<ol style="list-style-type: none"> 1.Understand how to handle files and images in web frameworks 2.Understand the types of files and images 3.Implement file and image handling in simple applications 	Criteria: Holistic Rubric	Contextual Instruction Small project based learning 2 X 50			0%
14	Able to understand the importance of security in web applications. Able to apply application security on simple examples	<ol style="list-style-type: none"> 1.Understand the importance of security in web applications 2.Implementing application security on a simple example 	Criteria: Holistic Rubric	Contextual Instruction Cooperative Learning 2 X 50			0%
15	Able to understand the importance of security in web applications. Able to apply application security on simple examples	<ol style="list-style-type: none"> 1.Understand the importance of security in web applications 2.Implementing application security on a simple example 	Criteria: Holistic Rubric	Contextual Instruction Cooperative Learning 2 X 50			0%
16				2 X 50			0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
		0%

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.