



Universitas Negeri Surabaya
Faculty of Education,
Doctoral Study Program in Educational Technology

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																												
Research and Development Methodology	8600302035		T=2 P=0 ECTS=5.04	2	July 17, 2024																																												
AUTHORIZATION	SP Developer		Course Cluster Coordinator		Study Program Coordinator																																												
	Dr. Fajar Arianto, M.Pd			Prof. Dr. Mustaji, M.Pd.																																												
Learning model	Project Based Learning																																																
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;"> <tr> <td rowspan="2" style="width: 5%;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 3%;">1</td> <td style="width: 3%;">2</td> <td style="width: 3%;">3</td> <td style="width: 3%;">4</td> <td style="width: 3%;">5</td> <td style="width: 3%;">6</td> <td style="width: 3%;">7</td> <td style="width: 3%;">8</td> <td style="width: 3%;">9</td> <td style="width: 3%;">10</td> <td style="width: 3%;">11</td> <td style="width: 3%;">12</td> <td style="width: 3%;">13</td> <td style="width: 3%;">14</td> <td style="width: 3%;">15</td> <td style="width: 3%;">16</td> </tr> </table>																P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Short Course Description	Examining research and development methods and development models regarding the characteristics of course content and/or subjects or training (facts, concepts, principles, procedures), taxonomy of objectives and obstacles faced in the implementation of education/learning/training. Studies can be directed at the characteristics of students or training participants in terms of psychology, sociology, politics, culture and so on, as in developing theories and/or learning models, lectures are carried out using project based learning and collaboration.																																																
References	Main :																																																
	<ol style="list-style-type: none"> 1. Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. How to Design and Evaluate Research in Education. McGraw-Hill : New York 2. Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction . Allyn & Bacon 3. John W. Creswell. 2013. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. SAGE Publications, Inc 4. Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York 5. Joost Lowyck (auth.), J. Michael Spector, M. David Merrill, Jan Elen, M. J. Bishop. 2017. Handbook of Research on Educational Communications and Technology. Springer-Verlag: New York 6. Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E. 2001. Designing Effective Instruction. Third Edition 7. Robert Maribe Branch (2009). Instructional Design: The ADDIE Approach. Springer New York Dordrecht Heidelberg London 8. Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook.NY: ERIC 9. Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE 																																																
	Supporters:																																																
Supporting lecturer	Prof. Dr. Yatim Riyanto, M.Pd. Dr. H. Andi Mariono, M.Pd. Dr. Fajar Arianto, S.Pd., M.Pd. Dr. Alim Sumarno, M.Pd.																																																
Week-	Final abilities of each learning	Evaluation	Help Learning, Learning methods, Student Assignments, [Estimated time]	Learning materials	Assessment Weight (%)																																												

	stage (Sub-PO)	Indicator	Criteria & Form	Offline (<i>offline</i>)	Online (<i>online</i>)	[References]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Understand research in the area of educational technology	1.Understand the emerging field of educational technology 2.Identify types of development, utilization and evaluation research	Criteria: accuracy and depth of study Form of Assessment : Test	inquiry		Material: Research and development Bibliography: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i> Material: development of instructional design References: <i>Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York</i>	2%
2	Understand research in the area of educational technology	1.Understand the emerging field of educational technology 2.Identify types of development, utilization and evaluation research	Form of Assessment : Test	inquiry		Material: Research and development Bibliography: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i> Material: development of instructional design References: <i>Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York</i>	2%
3	Determine the basic ideas of research in the field of Educational Technology	1.Identify research themes according to the field of Educational Technology 2.Identify types of research in Educational Technology	Criteria: Suitability to the field of Educational Technology Form of Assessment : Test	Inquiry		Material: Research and development Bibliography: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i>	2%

4	Determine the basic ideas of research in the field of Educational Technology	<ol style="list-style-type: none"> 1. Identify research themes according to the field of Educational Technology 2. Identify types of research in Educational Technology 	<p>Criteria: Suitability to the field of Educational Technology</p> <p>Form of Assessment : Test</p>	Inquiry		<p>Material: Research and development Bibliography: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i></p> <hr/> <p>Material: research in the field of educational technology Readers: <i>Joost Lowyck (auth.), J. Michael Spector, M. David Merrill, Jan Elen, MJ Bishop. 2017. Handbook of Research on Educational Communications and Technology. Springer-Verlag: New York</i></p>	2%
5	Determine development research in the field of Educational Technology	<ol style="list-style-type: none"> 1. Determine the type of research instrument 2. Develop research instruments according to the type of data needed in the research 3. Analyzing instrument validation results 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Accuracy of determining research instruments 2. accuracy of research instrument variables and indicators 3. accuracy of validation of research instruments <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	project based learning		<p>Material: instruments and validation of research instruments References: <i>Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. How to Design and Evaluate Research in Education. McGraw-Hill : New York</i></p> <hr/> <p>Material: instruments and validation of research instruments References: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i></p> <hr/> <p>Material: instruments and validation of research instruments References: <i>Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York</i></p>	5%

6	Determine development research in the field of Educational Technology	<ol style="list-style-type: none"> 1. Determine the type of research instrument 2. Develop research instruments according to the type of data needed in the research 3. Analyzing instrument validation results 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Accuracy of determining research instruments 2. accuracy of research instrument variables and indicators 3. accuracy of validation of research instruments <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	project based learning		<p>Material: instruments and validation of research instruments References: Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. <i>How to Design and Evaluate Research in Education.</i> McGraw-Hill : New York</p> <hr/> <p>Material: instruments and validation of research instruments References: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. <i>Educational Research: An Introduction.</i> Allyn & Bacon</p> <hr/> <p>Material: instruments and validation of research instruments References: Walter Dick, Lou Carey, James O. Carey. 2015. <i>The systematic design of instruction.</i> Pearso: New York</p>	7%
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7	Determine development research in the field of Educational Technology	<ol style="list-style-type: none"> 1. Determine the type of research instrument 2. Develop research instruments according to the type of data needed in the research 3. Analyzing instrument validation results 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Accuracy of determining research instruments 2. accuracy of research instrument variables and indicators 3. accuracy of validation of research instruments <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	project based learning		<p>Material: instruments and validation of research instruments References: Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. <i>How to Design and Evaluate Research in Education.</i> McGraw-Hill : New York</p> <hr/> <p>Material: instruments and validation of research instruments References: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. <i>Educational Research: An Introduction.</i> Allyn & Bacon</p> <hr/> <p>Material: instruments and validation of research instruments References: Walter Dick, Lou Carey, James O. Carey. 2015. <i>The systematic design of instruction.</i> Pearso: New York</p>	10%
8	midterm exam						0%

9	Formulate a development research design in accordance with the development model	<ol style="list-style-type: none"> 1. Determining the right development model 2. Identify the advantages and disadvantages of various development models 3. Develop a development research design according to a predetermined model 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Accuracy of determining the development model 2. sequence of assessment of each stage of development <p>Form of Assessment :</p> <p>Project Results Assessment / Product Assessment</p>	Project based learning		<p>Material: Research and development</p> <p>Bibliography: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i></p> <hr/> <p>Material: development design</p> <p>Bibliography: <i>Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York</i></p> <hr/> <p>Material: learning design model</p> <p>Reader: <i>Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE</i></p> <hr/> <p>Material: development design model</p> <p>References: <i>Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook. NY: ERIC</i></p> <hr/> <p>Material: learning design model</p> <p>Reference: <i>Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E. 2001. Designing Effective Instruction. Third Edition</i></p>	10%
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10	Formulate a development research design in accordance with the development model	<ol style="list-style-type: none"> 1. Determining the right development model 2. Identify the advantages and disadvantages of various development models 3. Develop a development research design according to a predetermined model 	Criteria: <ol style="list-style-type: none"> 1. Accuracy of determining the development model 2. sequence of assessment of each stage of development 	Project based learning		Material: Research and development Bibliography: <i>Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. Educational Research: An Introduction. Allyn & Bacon</i> <hr/> Material: development design Bibliography: <i>Walter Dick, Lou Carey, James O. Carey. 2015. The systematic design of instruction. Pearso: New York</i> <hr/> Material: learning design model Reader: <i>Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (PIE Model) and ADDIE</i> <hr/> Material: development design model References: <i>Thiagarajan, Sivasailam. 1974. Instructional Development for Training Teachers of Exceptional Children: A Sourcebook. NY: ERIC</i> <hr/> Material: learning design model Reference: <i>Morrison. Gary R., Ross, Steven M., Kemp, Jerrold E. 2001. Designing Effective Instruction. Third Edition</i>	10%
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13	produce research and development proposals that are appropriate to the educational technology area	<ol style="list-style-type: none"> 1. preparing the background for development research based on needs analysis 2. Determine the problem formulation that is appropriate to development research 3. Compile theoretical studies that are appropriate to development research variables 4. Develop research and development methods that are appropriate to the problem formulation 5. Develop research and development instruments that are appropriate to research and development variables 6. determine research and development data analysis techniques 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Accuracy in preparing research and development background 2. The accuracy of the problem formulation in accordance with development research 3. Accuracy and depth of theoretical studies in accordance with development research variables 4. Accuracy of development research methods in accordance with the problem formulation 5. Accuracy of research and development instruments in accordance with research and development variables 6. Accuracy of research and development data analysis techniques <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Project based learning		<p>Material: research methods and reliability validity References: Jack Fraenkel, Norman Wallen, Helen Hyun. 2011. <i>How to Design and Evaluate Research in Education</i>. McGraw-Hill : New York</p> <hr/> <p>Material: Research and development Bibliography: Meredith D. Gall, Walter R. Borg, Joyce P. Gall. 2003. <i>Educational Research: An Introduction</i>. Allyn & Bacon</p> <hr/> <p>Material: development design Reader: Gabriela Gutierrez. 2013. Newby, Stepich, Lehman and Russell (<i>PIE Model</i>) and <i>ADDIE</i></p> <hr/> <p>Material: development design References: Thiagarajan, Sivasailam. 1974. <i>Instructional Development for Training Teachers of Exceptional Children: A Sourcebook</i>. NY: ERIC</p> <hr/> <p>Material: development design Reference: Robert Maribe Branch (2009). <i>Instructional Design: The ADDIE Approach</i>. Springer New York Dordrecht Heidelberg London</p> <hr/> <p>Material: development design Bibliography: Walter Dick, Lou Carey, James O. Carey. 2015. <i>The systematic design of instruction</i>. Pearso: New York</p>	10%
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16	Final exams						0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Project Results Assessment / Product Assessment	92%
2.	Test	8%
		100%

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.