



Universitas Negeri Surabaya
Faculty of Education,
Doctoral Study Program in Basic Education

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																																																																														
Quantitative Research Methodology	8602203002		T=3 P=0 ECTS=7.56	3	July 16, 2024																																																																																														
AUTHORIZATION		SP Developer	Course Cluster Coordinator	Study Program Coordinator																																																																																															
		Prof. Dr. Budi Jatmiko, M.Pd.	Prof. Dr. Suryanti, M.Pd.	Prof. Dr. Suryanti, M.Pd.																																																																																															
Learning model	Project Based Learning																																																																																																		
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																																																																																		
	PLO-3	Develop logical, critical, systematic and creative thinking in carrying out specific work in their field of expertise and in accordance with work competency standards in the field concerned																																																																																																	
	PLO-5	Mastering the philosophy and learning methodology of basic education to produce learning innovations.																																																																																																	
	PLO-9	Able to develop a research roadmap with an inter, multi and transdisciplinary approach, which accommodates complexity and contextuality, to produce novelty.																																																																																																	
	Program Objectives (PO)																																																																																																		
	PO - 1	Mastering the philosophical foundations of quantitative research in the scientific development of basic education																																																																																																	
	PO - 2	Compile basic education quantitative research proposals correctly.																																																																																																	
	PO - 3	Upholding human values in order to develop students' attitudes, skills and abilities (cognitive, affective and psychomotor) in an integrated manner																																																																																																	
	PLO-PO Matrix																																																																																																		
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PO Matrix at the end of each learning stage (Sub-PO)																																																																																																			
	<table border="1" style="width: 100%; text-align: center;"> <tr> <td rowspan="2">P.O</td> <td colspan="16">Week</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> </tr> <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> </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																
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Short Course Description	Study of the research process and paradigm of quantitative methods, framework of thinking, hypotheses and research variables, population and samples, research instruments, experimental research, survey research, data collection, and data analysis and preparation of dissertation proposals.																																																																																																		
References	Main :																																																																																																		
	<ol style="list-style-type: none"> 1. Creswell, W. J. (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications. 2. Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications. 3. Branch, R. M. (2009). Instructional design: The ADDIE approach (Vol. 722). Springer Science & Business Media. 4. Jurnail Internasional Bereputasi 																																																																																																		
Supporting lecturer	Supporters:																																																																																																		
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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	Understanding dissertation philosophy	Distinguish between thesis, thesis and dissertation	Form of Assessment : Participatory Activities	Demonstration/modelling, discussion	Demonstration/modeling and discussion	Material: Difference between thesis, thesis and dissertation Reference: <i>Reputable International Journal</i>	2%
2	Finding and reviewing quality and up-to-date articles in reputable international journals	Analyzing articles in reputable international journals	Form of Assessment : Assessment of Project Results / Product Assessment, Practices / Performance	Demonstrations and discussions	Demonstrations and discussions	Material: analysis of articles in reputable international journals References:	10%
3	Discovering the novelty of basic education doctoral research from the results of dissertation studies and articles in international journals	Analyzing the novelty of doctoral research through studying dissertations and articles in reputable international journals	Form of Assessment : Portfolio Assessment	Flip learning and Discussion	Flip learning and Discussion	Material: state of the art research References: <i>Creswell, WJ (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications.</i> Material: state of the art research Library: <i>Reputable International Journal</i>	5%
4	Develop problem formulation, framework of thinking, hypotheses, research variables correctly	1.1. Determine the theory underlying the main research issue 2.2. Describe the basic theory of research 3.3. Describe the thinking framework and conceptual framework 4.4. Formulate hypotheses and research variables 5.5. formulate the problem	Form of Assessment : Practice / Performance	Presentations, discussions and questions and answers	Presentations, discussions and questions and answers	Material: Review of the Literature, The Use of Theory, hypothesis, research variables References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i> Material: hypothesis, research variables References: <i>Creswell, WJ (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications.</i>	5%

5	Examining Research Methods Quantitative Research Designs for Basic Education Doctoral Dissertations that meet KKNl level 9	Analyze quantitative research designs	Form of Assessment : Participatory Activities	Flip learning and Discussion	Flip learning and Discussion	Material: Quantitative Methods References: <i>Creswell, WJ (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications.</i> <hr/> Material: Quantitative Methods References: 1. <i>SChristensen, LB 1997. Experimental Methodology. (7th ed.). Boston: Allyn and Bacon.</i>	2%
6	Examining mixed research (qualitative and quantitative)	Examining mixed research (qualitative and quantitative)	Form of Assessment : Participatory Activities	Flip learning, presentations and discussions	Flip learning, presentations and discussions	Material: Mixed Methods Procedures References: <i>Creswell, WJ (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications.</i> <hr/> Material: Mixed Methods Procedures References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i>	3%

7	Reviewing research development (R&D) models	Designing development research (R&D)	Form of Assessment : Practice / Performance	Flip learning, presentations, discussions	Flip learning, presentations, discussions	<p>Material: R&D Design</p> <p>References: Plomp, T. & Nieveen, N. (2013). <i>Introduction to the collection of illustrative cases of educational design research</i>. In T. Plomp, & N. Nieveen (Eds.), <i>Educational design research – Part B: Illustrative cases</i> (pp. V-XX). Enschede, the Netherlands: SLO.</p> <hr/> <p>Material: R&D Design</p> <p>References: Branch, RM (2009). <i>Instructional design: The ADDIE approach</i> (Vol. 722). Springer Science & Business Media.</p>	5%
8	UTS		Form of Assessment : Test	Write	Write		5%
9	Prepare chapter 1 of the introduction according to the dissertation topic	Prepare a preliminary draft of the dissertation proposal	Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment	Presentation and discussion	Presentation and discussion	<p>Material: Introduction: Background of the problem, problem formulation, research objectives, benefits of research, and definitions of terms</p> <p>References: Creswell, WJ (2014). <i>Research design: Qualitative, quantitative, and mixed method approaches 4th edition</i>. USA: SAGE Publications.</p> <hr/> <p>Material: Introduction: Background of the problem, problem formulation, research objectives, benefits of research, and definitions of terms</p> <p>References: 2. Fraenkel, JR and Wallen, NE 2003. <i>How to Design and Evaluate Research in Education (Student Workbook)</i>. Boston: Mac Graw Hill.</p>	10%

10	Compile chapter 2 of the theoretical study of the dissertation proposal	Prepare a theoretical study of a dissertation proposal	Form of Assessment : Project Results Assessment / Product Assessment	Presentation and discussion	Presentation and discussion	Material: Theory studies and Writing Strategies and Ethical Considerations References: <i>Creswell, WJ (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications.</i> <hr/> Material: Theory studies and Writing Strategies and Ethical Considerations References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i> <hr/> Material: Theory studies and Writing Strategies and Ethical Considerations References: <i>2. Fraenkel, JR and Wallen, NE 2003. How to Design and Evaluate Research in Education (Student Workbook). Boston: Mac Graw Hill.</i>	10%
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11	Compile chapter 3 research methods	Develop a research design	Form of Assessment : Project Results Assessment / Product Assessment	Presentation and discussion	Presentation and discussion	Material: Types of research and research procedures References: <i>Creswell, WJ (2014). Research design: Qualitative, quantitative, and mixed method approaches 4th edition. USA: SAGE Publications.</i> <hr/> Material: Types of research and research procedures References: <i>Plomp, T. & Nieveen, N. (2013). Introduction to the collection of illustrative cases of educational design research. In T. Plomp, & N. Nieveen (Eds.), Educational design research – Part B: Illustrative cases (pp. V-XX). Enschede, the Netherlands: SLO.</i> <hr/> Material: Types of research and research procedures References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i> <hr/> Material: Types of research and research procedures References: <i>2. Fraenkel, JR and Wallen, NE 2003. How to Design and Evaluate Research in Education (Student Workbook). Boston: Mac Graw Hill.</i>	15%
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12	Compile chapter 3 research methods: research instruments	<ol style="list-style-type: none"> 1. Determine the type of instrument 2. Determine the validity and reliability of the instrument 	Form of Assessment : Project Results Assessment / Product Assessment	Presentation and discussion	Presentation and discussion	Material: Research instrument References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i> <hr/> Material: Validity and reliability of instruments References: 2. Fraenkel, JR and Wallen, NE 2003. <i>How to Design and Evaluate Research in Education (Student Workbook)</i> . Boston: Mac Graw Hill.	10%
13	Determine the population and sample correctly	<ol style="list-style-type: none"> 1. Distinguish between reference population, research population and sample 2. Explain the randomization procedure 3. Calculating the size of the research sample 	Form of Assessment : Project Results Assessment / Product Assessment	Presentation and discussion	Presentation and discussion	Material: Population and sample References: 2. Fraenkel, JR and Wallen, NE 2003. <i>How to Design and Evaluate Research in Education (Student Workbook)</i> . Boston: Mac Graw Hill.	8%
14	Determine and apply data collection and data analysis techniques correctly.	<ol style="list-style-type: none"> 1.1. Explain data collection techniques through interviews, questionnaires and observations 2.2. Determine appropriate data collection techniques for research 3.3. Explain descriptive and statistical analysis 4.4. Determine the appropriate data analysis for research 	Form of Assessment : Assessment of Project Results / Product Assessment, Practices / Performance	Presentation and discussion	Presentation and discussion	Material: Data collection and data analysis techniques References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i> <hr/> Material: Data collection and data analysis techniques References: 2. Fraenkel, JR and Wallen, NE 2003. <i>How to Design and Evaluate Research in Education (Student Workbook)</i> . Boston: Mac Graw Hill.	3%

15	Applying parametric and non-parametric statistics to quantitative research proposals	1. Determines the type of statistics for data analysis 2. Determine statistical test requirements	Form of Assessment : Practice / Performance	Presentation and discussion	Presentation and discussion	Material: Parametric and non-parametric statistics References: <i>Creswell, JW, & Creswell, JD (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.</i> Material: Parametric and non-parametric statistics References: <i>2. Fraenkel, JR and Wallen, NE 2003. How to Design and Evaluate Research in Education (Student Workbook). Boston: Mac Graw Hill.</i>	2%
16			Form of Assessment : Test				5%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	7%
2.	Project Results Assessment / Product Assessment	54.5%
3.	Portfolio Assessment	10%
4.	Practice / Performance	18.5%
5.	Test	10%
		100%

Notes

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Forms of assessment:** test and non-test.
- 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.
- 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.
- Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- 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%.
- TM=Face to face, PT=Structured assignments, BM=Independent study.