	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
Neuropsychology of Elementary Education	8602203004		**T=3 P=0 ECTS=7.56**	1	July 16, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	Dr. Diana Rahmasari, S.Psi., M.Si., Psikolog	Prof. Dr. Mochamad Nursalim, M.Si.	Prof. Dr. Suryanti, M.Pd.

Learning model: Case Studies

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-10	Able to develop a basic education curriculum that is innovative and responsive to learning needs, accommodating students' strengths and weaknesses, and a culture-friendly curriculum, by utilizing research results, in the form of basic education scientific work.
PLO-11	Able to develop basic education learning models along with supporting devices that are innovative and responsive to students' learning needs, as well as accommodating developments in technology and information.

Program Objectives (PO)

PO - 1	Study and analyze the relationship between brain structure and function and human psychological processes and behavior.
PO - 2	Implementing representation theory, information processing, solving methods, metacognition, in basic learning
PO - 3	Shows the relationship between neuropsychology in elementary education

PLO-PO Matrix

P.O	PLO-3	PLO-5	PLO-10	PLO-11
PO-1				
PO-2				
PO-3				

PO Matrix at the end of each learning stage (Sub-PO)

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																

Short Course Description: This course deepens understanding of the relationship between brain structure and function and human psychological processes and behavior, representation theory, information processing theory, problem solving and metacognition. In addition, this course is designed to provide an in-depth understanding of the neuropsychological elements of education including; intelligence, academic abilities, language, memory, attention, abstract reasoning, and student behavior. as a vehicle for broadening the vision of doctoral candidates so that it can trigger reflective thinking and critical thinking skills in developing and implementing elementary school learning strategies/methods related to the latest developments in cognitive psychology.

References

Main :

1. Mareschal, Denis; Brian Butterworth, Andy Tolmie. 2014. Educational neuroscience. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd Goldstein, Laura H. & McNeil, Jane E. (2013).. Clinical Neuropsychology: A Practical Guide to Assessment and Management for Clinicians. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd. Solso, R. L., Maclin, O. H., & Maclin, M.K. (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga Brown, C. (2007). Cognitive Psychology. London: SAGE Publications Ltd
2. 2. Goldstein, Laura H. & McNeil, Jane E. (2013).. Clinical Neuropsychology: A Practical Guide to Assessment and Management for Clinicians. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd.
3. 3. Solso, R. L., Maclin, O. H., & Maclin, M.K. (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga
4. 4. Brown, C. (2007). Cognitive Psychology. London: SAGE Publications Ltd
5. 5. Nursalim, M. dkk. 2022. Neuropsikologi Pendidikan Dasar. Surabaya: CV Jakad Media Publishing
6. 6 . Calicchio, Stefano. 2022. NEUROPSIKOLOGI dasar-dasar masalahnya, https://www.scribd.com/read/583159847/NEUROPSIKOLOGI-dasar-dasar-masalahnya

Supporters:

1. Pinel, John P.J. (2009). Biopsikologi. Edisi Ketujuh. Pustaka Pelajar
2. 1. Azilawati Jamaludin, Avishai Henik & James B. Hale (2019) Educational neuroscience: bridging theory and practice, Learning: Research and Practice, 5:2, 93-98, DOI:10.1080/23735082.2019.1685027
3. Novaria lailatul jannah, Mochamad Nursalim, Sujarwanto, (2022). Representation Analysis Of Science Process Skills With A Neuropsycological View At Elementary School, Edutec, Volume 6 Number 1 September 2022
4. Arya Setya Nugroho, Mochamad Nursalim , Sujarwanto (2022) SPIRITUAL INTELLIGENCE IS DIRECTLY PROPORTIONAL TO THE IMPROVEMENT OF SOCIAL ATTITUDES OF ELEMEJurnal Pendidikan Dasar Nusantara Vol 8, No 1, Juli 2022 ISSN 2579-6461 (Online) ISSN 2460-6324 (Print) DOI: https://doi.org/10.29407/jpdn.v8i1.17990NTARY SCHOOL STUDENTS?.
5. Duhwi Indartiningsih, Mochamad Nursalim, Diana Rahmasari. (2023) KEMAMPUAN BERPIKIR KRITIS MATEMATIS DENGAN BRAIN BASED LEARNING: SYSTEMATIC LITERATURE REVIEW. Transformasi : Jurnal Pendidikan Matematika dan Matematika Volume 7, No. 2, Bulan Desember Tahun 2023, pp. 183-198
6. Muhamad Nukman , Mochamad Nursalim, Diana Rahmasari , (2023) DAMPAK ERA DIGITAL TERHADAP PERKEMBANGAN BAHASA ANAK USIA DINI: LITERATURE REVIEW. Jurnal Review Pendidikan dan Pengajaran, Volume 7 Nomor 1, 2023 | 284

Supporting lecturer	Prof. Dr. Mochamad Nursalim, M.Si. Dr. Diana Rahmasari, S.Psi., M.Si.,Psikolog.

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	Defining the nature of educational Neuroscience, research support and the role of educational Neuroscience in basic education.	1. Defining educational Neuroscience 2. Examining research on educational Neuroscience. 3. Formulate the role of educational Neuroscience in basic education	**Criteria:** 1. activeness, suitability between questions and answers, 2. designing scientific articles to be submitted in Sinta indexed journals **Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Direct learning model using lecture method, question and answer, discussion 2 X 50			5%
2	Identify and formulate the relationship between brain structure and function and human psychological processes and behavior.	1. Identify the structure and function of the brain 2. Formulate the relationship between brain structure and function and human psychological processes and behavior	**Criteria:** suitability, completeness, depth and novelty **Form of Assessment** : Participatory Activities, Practice/Performance	case-method 3 X 50			5%
3	Understanding the implementation of representation theory in basic education.	1. Prepare the results of a chapter report on representation theory 2. Present the results of the chapter report directly and firmly in responding to the audience.	**Criteria:** the accuracy of the book crypter material **Form of Assessment** : Assessment of Project Results / Product Assessment, Practices / Performance	project-based learning 3 X 50			10%
4	Understanding the implementation of information processing theory in basic education.	1. Prepare the results of a chapter report on information processing theory 2. Present the results of the chapter report directly and firmly in responding to the audience.	**Criteria:** 1 **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	case method 3 X 50		**Material:** information processing theory **References:** *1. Azilawati Jamaludin, Avishai Henik & James B. Hale (2019) Educational neuroscience: bridging theory and practice, Learning: Research and Practice, 5:2, 93-98, DOI:10.1080/23735082.2019.1685027*	15%
5	Understanding the implementation of information processing theory in basic education.	1. Prepare the results of a chapter report on information processing theory 2. Present the results of the chapter report directly and firmly in responding to the audience.	**Criteria:** 1 **Form of Assessment** : Project Results Assessment / Product Assessment	problem-based learning 3 X 50			10%
6	Understand the implementation of problem solving methods in basic education	Prepare the results of a chapter report regarding problem solving methods. Present the results of the chapter report directly and firmly in responding to audiences.	**Criteria:** 1 **Form of Assessment** : Project Results Assessment / Product Assessment	problem-based learning 3 X 50			5%

7	Demonstrates the role of metacognition in elementary education.	1.Compile the results of a chapter report about intelligence 2.Present the results of the chapter report directly and firmly in responding to the audience.	**Criteria:** 1 **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	problem-based learning 3 X 50			5%
8	Midterm exam	Midterm exam	**Criteria:** Midterm exam **Form of Assessment** : Test	Midterm Exam 3 X 50			5%
9	Demonstrates the role of intelligence in elementary education	1.Compile the results of a chapter report about intelligence. 2.Present the results of the chapter report directly and firmly in responding to the audience.	**Criteria:** 1 **Form of Assessment** : Assessment of Project Results / Product Assessment, Practices / Performance	problem-based learning 3 X 50			5%
10	Demonstrates the role of academic abilities in basic education	1.Prepare the results of the chapter report regarding the Mid-Semester Examination 2.Present the results of the chapter report directly and firmly in responding to the audience.	**Criteria:** activeness in actively participating in face-to-face lectures independence in carrying out learning activities completing structured tasks well and on time **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	problem-based learning 3 X 50			5%
11	Shows the role of intelligence in elementary education.	1.1. Prepare the results of the chapter report about intelligence. 2. 2.2. Present the results of the chapter report directly and firmly in response to the audience.	**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Problem Based Learning and case study 3 x 50 minutes		**Material:** cognitive theory and application in learning and cases that arise **References:** *3. Solso, RL, Maclin, OH, & Maclin, MK (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga* **Material:** intelligence and its development **References:**	5%
12		1.1. Prepare the results of the chapter report on academic abilities 2.2. Present the results of the chapter report directly and firmly in response to the audience.	**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	problem based learning, discussion presentation 3 x 50 minutes		**Material:** application and analysis of the role of neuroscience in children's learning **References:** *Mareschal, Denis; Brian Butterworth, Andy Tolmie. 2014. Educational neuroscience. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd Goldstein, Laura H. & McNeil, Jane E. (2013).. Clinical Neuropsychology: A Practical Guide to Assessment and Management for Clinicians. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd. Solso, R.L., Maclin, O.H., & Maclin, M.K. (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga Brown, C. (2007). Cognitive Psychology. London: SAGE Publications Ltd*	10%
13	1. Prepare the results of the chapter report on language and memory abilities	1.1. Prepare the results of the chapter report on language and memory abilities. 2.2. Present the results of the chapter report directly and firmly in response to the audience.	**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	problem based learning, discussion presentation 3 x 50 minutes		**Material:** cognitive theory and its role in children's learning process **References:** *3. Solso, RL, Maclin, OH, & Maclin, MK (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga* **Material:** Memory processes and cognitive theory **References:**	5%

14	Demonstrates the role of attention and abstract reasoning in elementary education.	1.1. Prepare the results of the chapter report about attention and abstract reasoning. 2.2. Present the results of the chapter report directly and firmly in response to the audience	**Form of Assessment** : Project Results Assessment / Product Assessment	problem based learning. presentation discussion 3 x 50 minutes		**Material:** cognitive theory and its role in children's learning process **References:** *3. Solso, RL, Maclin, OH, & Maclin, MK (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga* **Material:** cognitive theory and its application in learning and cases that arise. **Reference:** *Pinel, John PJ (2009). Biopsychology. Seventh Edition. Student Library*	5%
15		1.1. Analyze the synergism between neuropsychologists in basic education 2.2. Compile scientific articles about neuropsychology in elementary education	**Form of Assessment** : Project Results Assessment / Product Assessment	problem based learning. presentation discussion 3 x 50 minutes		**Material:** articles on the theme of neuroscience and education **Bibliography:** *Mareschal, Denis; Brian Butterworth, Andy Tolmie. 2014. Educational neuroscience. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd Goldstein, Laura H. & McNeil, Jane E. (2013).. Clinical Neuropsychology: A Practical Guide to Assessment and Management for Clinicians. The Atrium, Southern Gate, Chichester, West Sussex: John Wiley & Sons, Ltd. Solso, R.L., Maclin, O.H., & Maclin, M.K. (2013). Cognitive Psychology (8th Edition). Jakarta: Erlangga Brown, C. (2007). Cognitive Psychology. London: SAGE Publications Ltd*	5%
16				UAS 3 x 50 minutes		**Material:** articles on the theme of neuroscience and education **Bibliography:** *Azilawati Jamaludin, Avishai Henik & James B. Hale (2019) Educational neuroscience: bridging theory and practice, Learning: Research and Practice, 5:2, 93-98, DOI:10.1080/23735082.2019 .1685027*	0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	15%
2.	Project Results Assessment / Product Assessment	57.5%
3.	Portfolio Assessment	12.5%
4.	Practice / Performance	10%
5.	Test	5%
		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.