



Universitas Negeri Surabaya
Faculty of Sports and Health Sciences
Bachelor of Sports Science Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date																																
MUSCLE TESTING	8920102238		T=2	P=0	ECTS=3.18	5	July 17, 2024																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator																																	
			Dr. Heri Wahyudi, S.Or., M.Pd.																																	
Learning model	Project Based Learning																																						
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																						
	Program Objectives (PO)																																						
	PLO-PO Matrix																																						
		P.O																																					
Short Course Description	Understanding and mastery of the basic concepts of manual muscle testing (MMT) including the musculoskeletal system, structure of large muscles, Range of Motion and Muscle Length Testing, classification of musculoskeletal strength measurements, musculoskeletal and neuromuscular problems, strength measurement procedures , treatment of muscle problems. which is carried out through library research, discussions and case studies																																						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width: 10%; text-align: center;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 5%; text-align: center;">1</td> <td style="width: 5%; text-align: center;">2</td> <td style="width: 5%; text-align: center;">3</td> <td style="width: 5%; text-align: center;">4</td> <td style="width: 5%; text-align: center;">5</td> <td style="width: 5%; text-align: center;">6</td> <td style="width: 5%; text-align: center;">7</td> <td style="width: 5%; text-align: center;">8</td> <td style="width: 5%; text-align: center;">9</td> <td style="width: 5%; text-align: center;">10</td> <td style="width: 5%; text-align: center;">11</td> <td style="width: 5%; text-align: center;">12</td> <td style="width: 5%; text-align: center;">13</td> <td style="width: 5%; text-align: center;">14</td> <td style="width: 5%; text-align: center;">15</td> <td style="width: 5%; text-align: center;">16</td> </tr> </table>							P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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References	Main :																																						
	<ol style="list-style-type: none"> 1. Kendall, F. P., McCreary, E. K., Provance, P. G., Rodgers, M. M., & Romani, W. A. 2005. Muscles: testing and function with posture and pain Vol 5, pp 1-100. Baltimore, MD: Lippincott Williams & Wilkins. 2. Hislop, H., Avers, D., & Brown, M. 2013. Daniels and Worthinghams muscle Testing-E-Book: Techniques of manual examination and performance testing . Elsevier Health Sciences. 3. Weinstock, D. 2012. NeuroKinetic therapy: An innovative approach to manual muscle testing . North Atlantic Books. 																																						
	Supporters:																																						
Supporting lecturer	Dr. Achmad Widodo, M.Kes. Dr. Roy Januardi Irawan, S.Or., M.Kes. Awang Firmansyah, S.Or., M.Kes.																																						
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	Students are able to understand the concept of measuring muscle work (manual muscle testing)	<ol style="list-style-type: none"> 1.Mention the concept of manual muscle testing (MMT) 2.Mention the concept of Object and reliability of muscle testing 	Criteria: Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and questions and answers 2 X 50			0%
2	Students are able to understand the concepts of the musculoskeletal system, joints, large muscle structures and Range of Motion	<ol style="list-style-type: none"> 1.Mention the musculoskeletal system 2.Explain the definition of joints, their types and locations 3.Explain the structure of large muscles 4.Explain Range of Motion and Muscle Length 	Criteria: Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and questions and answers 2 X 50			0%
3	Students are able to understand the concept of strength measurement (strength test)	<ol style="list-style-type: none"> 1.Explain the classification of strength tests 2.Mention the procedure for measuring strength 3.Explain the sequences of strength measurements 	Criteria: Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and questions and answers 2 X 50			0%
4	Students are able to understand the nerve plexus	<ol style="list-style-type: none"> 1.Explain the nerve plexus 2.State the function of the nerve plexus 3.Describe injuries to the nerve plexus 4.Explain the treatment of injuries to the nerve plexus 	Criteria: Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and questions and answers 2 X 50			0%
5	Students are able to understand the concept of Grading Strength and Key to Muscle Grading	<ol style="list-style-type: none"> 1.Explain the meaning of grading 2.Mention the various grading symbols 3.Explain the use of the term "normal" in relation to muscle grading 	Criteria: Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and questions and answers 2 X 50			0%
6	Students are able to understand the basic concepts of musculoskeletal treatment	<ol style="list-style-type: none"> 1.explain stability 2.explain mobility 3.Explain the roles of muscles 	Criteria: Participation during lectures and peer teaching is carried out through observation (weight 2)	Lectures, discussions and questions and answers 2 X 50			0%
7	Students are able to understand the concept of neuromuscular problems	<ol style="list-style-type: none"> 1.Explain pressure and tension on nerves 2.Describe nerve injuries associated with muscles 3.Explain the mechanical causes of pain 4.Explain muscle spasm 5.Explain adaptations to muscle shortening 	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%

8	UTS			2 X 50			0%
9	Students are able to understand the various procedures used as treatments	<ol style="list-style-type: none"> 1.explain the meaning of traction 2.explains massage as a treatment 3.explains exercise as a treatment 4.explain electrical stimulation 5.explain supporting tools 6.describes hot and cold therapy as treatments 	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%
10	Students are able to understand the concept of examination and treatment of body posture	<ol style="list-style-type: none"> 1.Explain the basic concepts of posture 2.Explain the standards of posture 3.Explain movement in the coronal plane 4.Explain movement in the sagittal plane 5.Explain movement on the traverse plane 	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%
11	Students are able to understand the concept of examining the neck muscles	<ol style="list-style-type: none"> 1.Explain capital extension and flexion 2.Explain cervical extension and flexion 3.Explain the combination of flexion and extension of the capital and cervix 	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%
12	Students are able to understand the concept of examining the muscles of the trunk	<ol style="list-style-type: none"> 1.Describes extension and flexion of the trunk 2.Explain the position and lifting mechanism of the pelvis 3.Explain about trunk rotation 4.Explain the respiratory and musculoskeletal mechanisms involved 	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%

13	Students are able to understand muscle examination procedures in the upper extremities	1.Explain the mechanism of measurement on the scapular 2.Explain the mechanism of measuring the shoulder 3.Explain the mechanism of measuring the upper arm and elbow 4.Explain the measurement mechanism of the hand, wrist and fingers	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%
14	Students are able to understand muscle examination procedures in the lower extremities	1.Explain the mechanism of measuring the pelvis 2.Explain the mechanism of measuring the knee 3.Explain the mechanism of measuring the ankle 4.Explain the mechanism of measuring the feet, soles and big toes	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%
15	Students are able to understand the mechanism of measurement in babies, toddlers and children	1.Explain the mechanism of measurement in infants and toddlers 2.Explain the measurement mechanism to children	Criteria: 1. Participation during lectures and peer teaching, carried out through observation (weight 2)	Lectures, discussions and practice questions 2 X 50			0%
16							0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		0%

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.

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.