



Universitas Negeri Surabaya
Faculty of Sports and Health Sciences
S1 Sports Coaching Education Study Program

Document
Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Human Body Anatomy	8520202011	Compulsory Study Program Subjects	T=2	P=0	ECTS=3.18	1	January 1, 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)																																																		
	PO - 1	able to take professional responsibility in applying anatomical knowledge to sports needs																																																	
	PLO-PO Matrix																																																		
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PO-1																																																			
PO Matrix at the end of each learning stage (Sub-PO)																																																			
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th rowspan="2">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> <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> </table>	P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	PO-1																
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PO-1																																																			

Short Course Description	Analyze human movement in sports by studying the anatomical structure and function of the human body including cells and tissues, bones, muscles, joints and nerves and can apply it in training and competitions to achieve maximum performance.
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References	Main :	
		<ol style="list-style-type: none"> 1. Werner platzter, 1992, Atlas dan buku teks anatomi manusia (terjemahan; Adji Dharma) Penerbit buku kedokteran EGC, Jakarta. 2. Sloane, Ethel. (2003), Anatomi dan Fisiologi untuk Pemula . Jakarta: EGC 3. Elaine N. Marieb,1994 . Essentials of human Anatomy & Physiology , The benjamin/Cummings Publishing Company, Inc. California. 4. Wibowo. DS. & Paryana .W. (2009). Anatomi Tubuh manusia. Ed 5. Yogyakarta : Graha Ilmu
	Supporters:	

Supporting lecturer	Dr. Nurkholis, M.Pd. dr. Azizati Rochmania, Sp.KFR. Dr. Or. Muhammad, S.Pd., M.Pd. dr. Ariesia Dewi Ciptorini, Sp.N. Resti Nurpratiwi, S.Ft., M.Fis.
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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	1. Understand the general meaning and function of human anatomy in sports. 2. Understand the divisions of the human body	1. Describe the meaning of human anatomy 2. Analyze the divisions of the human body 3. Differentiate the types of body axes 4. Differentiate the types of areas of the human body 5. Memorize anatomical terms 6. State the direction of movement	Criteria: Able to answer questions at least 75% Form of Assessment : Participatory Activities, Tests	Inquiry, problem solving 3 X 50		Material: Anatomy Library: <i>Werner platzer, 1992, Atlas and textbook of human anatomy (translation; Adji Dharm) EGC medical book publisher, Jakarta.</i>	5%
2	1. Understand the division and function of skeletal muscle cells. 2. Conduct studies on human body tissue	1. Name the four elements that form a network. 2. Define cells, organelles, and inclusions. 3. Identify cell regions (nucleus, cytoplasm, and plasma membrane). 4. Provide a description of the structure of the nucleus and explain the function of chromatine and nucleoli. 5. Identify a cell model or provide a description of the main function of the organelle. 6. Explain selective permeability, diffusion (including dialysis and osmosis) 7. Describe human body tissue. 8. Distinguish between types of human body tissue including epithelial tissue, connective tissue, cartilage tissue and bone tissue.	Criteria: Able to answer 80% of questions Form of Assessment : Assessment of Project Results / Product Assessment, Practices / Performance	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Sloane, Ethel. (2003), Anatomy and Physiology for Beginners . Jakarta: EGC</i>	5%
3	Understand and analyze the parts of the human skeletal system	1. Mention the divisions of the vertebral column. 2. Identify the main parts of the cervical vertebrae. 3. Distinguish the shape characteristics of each cervical vertebrae. 4. Identify the main parts of the thoraxales vertebrae	Criteria: 1.Be able to explain: 1. State the divisions of the vertebral column. 2.2. Identify the main parts of the cervical vertebrae 3.3. Differentiate the characteristics of the shape of each cervical vertebrae. 4.4. Identify the main parts of the thoraxales vertebrae Form of Assessment : Participatory Activities	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Elaine N. Marieb, 1994 . Essentials of human Anatomy & Physiology, The benjamin/Cummings Publishing Company, Inc. California.</i>	4%

4	Understand and analyze the parts of the human skeletal system	1. Identify the main parts of the lumbar vertebrae 2. Identify the main parts of the sacral vertebrae 3. Differentiate the shape of the sacrum based on gender 4. Identify the main parts of the spinal vertebrae	Criteria: Able to answer 80% of questions Form of Assessment : Participatory Activities, Portfolio Assessment	Inquiry, problem solving 3 X 50		Material: Anatomy Reader: Wibowo. DS. & Paryana .W. (2009). <i>Human Body Anatomy. Ed</i>	4%
5	1. Understand and analyze the parts of the human skeletal system 2. Understand the function of the chest cavity (covum thoraxis) 3. Understand the function of the chest cavity (covum pelvis)	1. Mention the division of bones in the thoraxis covum. 2. Analyze the shape and structure of the manubrium sterni, corpus sterni and xhypoideus process. 3. Analyze the shape and structure of true ribs (verae), false ribs (spurae) and floating ribs 4. Understand the function of each sternum in the process of respiration and body movement 5. Analyze the shape and structure of the pelvic bones	Criteria: Able to explain 75% Form of Assessment : Project Results Assessment / Product Assessment, Practice / Performance, Test	Inquiry, problem solving 3 X 50		Material: Anatomy Library: Werner platzer, 1992, <i>Atlas and textbook of human anatomy (translation; Adji Dharma) EGC medical book publisher, Jakarta.</i>	4%
6	1. Understand and analyze the parts of the human skeletal system 2. Understand and be able to name the types of upper body skeletal bones (extremitas superior) 3. Understand and be able to name the types of free hanging upper body skeletal bones (extremitas superior liberae) .	1. Understand the main parts of the scapula 2. Understand the main parts of the clavicle 3. Understand the main parts of the humerus 4. Understand the main parts of the radius 5. Understand the main parts of the ulna 6. Understand the main parts of the carpalea 7. Understand the main parts of the metacarpalea 8. Understand the main parts of the phalanx 9. Describe the ossification process 10. Describe the role and function of these bones in the sports movement system.	Criteria: Able to answer 75% of questions Form of Assessment : Participatory Activities	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: Elaine N. Marieb, 1994 . <i>Essentials of human Anatomy & Physiology, The benjamin/Cummings Publishing Company, Inc. California.</i>	3%

7	1. Understand and be able to name the types of lower body skeletal bones (inferior extremities) 2. Understand and be able to name the types of free hanging lower body skeletal bones (inferior extremities liberae).	1. Understand the main parts of the os illium 2. Understand the main parts of the pubic bone 3. Understand the main parts of the ichii bone 4. Understand the main parts of the femur 5. Understand the main parts of the patella 6. Understand the main parts of the tibia 7. Understand the main parts of the fibulla 8. Understand the parts main tarsalea 9. Understand the main parts of the metatarsalea 10. Understand the main parts of the pedis phalanx 11. Describe the ossification process 12. Describe the role and function of these bones in the sports movement system.	Criteria: Able to explain 75% Form of Assessment : Participatory Activities	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Sloane, Ethel. (2003), Anatomy and Physiology for Beginners . Jakarta: EGC</i>	3%
8	1. Understand general anatomy 2. Be able to differentiate the functions of muscle cells and human body tissue. 3. Understand and be able to name the parts of human bones and recognize their function for sports movement activities and learning physical education, sports and health.	1. Able to explain the general anatomy of the human body 2. Able to differentiate the function of muscle cells and human body tissue 3. Understand and be able to name the parts of human bones including the superior and inferior extremities and the vertebral column	Criteria: Mastered 75% of the test Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Tests	Midterm Exam 3 X 50		Material: UTS Library: Yogyakarta : Graha Ilmu	20%
9	1. Understand and be able to name the main parts of the skull (cranium) in relation to the skeletal muscle tendon attachment system 2. Understand the ossification system of the cranium	1. State the location of the frontal, spemoidal, parietale, lacrimal, nasal, ethmoidal, zygomatic, occipital, vomer, hyiodes, mandible and maxilla os. 2. Analyze the ossification process of the skull.	Criteria: Answered 85% of the question material Form of Assessment : Participatory Activities	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Elaine N. Marieb, 1994 . Essentials of human Anatomy & Physiology, The benjamin/Cummings Publishing Company, Inc. California.</i>	5%
10	1. Understand and be able to analyze and state the structure and function of the muscular system	1. Describe the role and function of the muscular system in the human body. 2. Describe the characteristics of muscles. 3. Describe the types of muscles in the human body.	Criteria: able to answer 80% of questions Form of Assessment : Participatory Activities, Tests	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Sloane, Ethel. (2003), Anatomy and Physiology for Beginners . Jakarta: EGC</i>	7%

11	1. Understand and be able to name the shape and location of skeletal muscle, smooth muscle and cardiac muscle 2. Understand and be able to analyze the contraction characteristics of skeletal muscle, smooth muscle and cardiac muscle	1. Describe the shape and location of skeletal muscle, smooth muscle and cardiac muscle 2. Describe the characteristics of contraction of skeletal muscle, smooth muscle and cardiac muscle during sports activities	Criteria: Mastered 80% of questions Form of Assessment : Participatory Activities, Tests	Inquiry, problem solving 3 X 50		Material: Anatomy Library: <i>Werner platzer, 1992, Atlas and textbook of human anatomy (translation; Adji Dharm) EGC medical book publisher, Jakarta.</i>	5%
12	Understand and be able to analyze the shape, location and working system of skeletal muscles when performing sports movements	1. Describe the attachment and arrangement of skeletal muscles to bones and joints 2. Describe the names and locations of skeletal muscles in the human body and their forms of movement when carrying out sports activities 3. Name and locate the muscles of the upper limbs 4. Name and locate the muscles lower limb muscles	Criteria: Master and be able to answer 75% of questions Form of Assessment : Participatory Activities, Tests	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Sloane, Ethel. (2003), Anatomy and Physiology for Beginners . Jakarta: EGC</i>	5%
13	Understand and be able to analyze the shape, location and working system of skeletal muscles when performing sports movements	1. Name and find the location of the back muscles 2. Name and find the location of the abdominal muscles 3. Name and find the location of the chest muscles	Criteria: Working on the muscle system diagram 100% Form of Assessment : Participatory Activities, Tests	Inquiry, problem solving 3 X 50		Material: Anatomy Bibliography: <i>Elaine N. Marieb, 1994 . Essentials of human Anatomy & Physiology, The benjamin/Cummings Publishing Company, Inc. California.</i>	3%
14	Understand and be able to analyze the working nervous system	1. Describe the structure and function of nerve cells 2. Describe the structure of the nervous system in humans 3. Describe the mechanism of movement due to the harmonious relationship between bones, muscles, joints and the nervous system in the human body.	Criteria: Able to present 75% of the nervous system Form of Assessment : Participatory Activities	Problem solving 3 X 50		Material: Anatomy Bibliography: <i>Elaine N. Marieb, 1994 . Essentials of human Anatomy & Physiology, The benjamin/Cummings Publishing Company, Inc. California.</i>	3%

15	1. Understand and be able to mention the structure and function of the Central and Peripheral Nervous Systems 2. Understand and be able to analyze the differences in reflex movements and reactions 3. Understand and be able to analyze the joint system in the human skeletal system 4. Understand and be able to name the joints in the skeletal system human	1. Describe the structure and function of the central nervous system 2. Describe the structure and function of the peripheral (peripheral) nervous system 3. Describe reflex movements and reactions during sports activities 4. Distinguish between types of joints 5. State the characteristics of each type of joint 6. mention the joint tools 7. State the function of each joint apparatus	Criteria: Able to present 75% according to group assignment Form of Assessment : Participatory Activities, Tests	Problem solving 3 X 50		Material: Anatomy Library: Yogyakarta : Graha Ilmu	3%
16	Master the structure and function of the anatomy of the human body and be able to apply it in sports activities and have the ability to train and improve athlete performance to the maximum.	Analyzing human movement in sports by studying the anatomical structure and function of the human body including cells and tissues, bones, muscles, joints and nerves	Criteria: able to master 75% of the questions Form of Assessment : Participatory Activities, Tests	Final exam Semester 3 X 50		Material: Anatomy Bibliography: <i>Elaine N. Marieb, 1994 . Essentials of human Anatomy & Physiology, The benjamin/Cummings Publishing Company, Inc. California.</i>	21%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	51.17%
2.	Project Results Assessment / Product Assessment	10.5%
3.	Portfolio Assessment	2%
4.	Practice / Performance	3.83%
5.	Test	32.5%
		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, Assessment Criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
- 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.

