



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

Document Code

**SEMESTER LEARNING PLAN**

<b>Courses</b>	<b>CODE</b>	<b>Course Family</b>	<b>Credit Weight</b>			<b>SEMESTER</b>	<b>Compilation Date</b>																																	
REHABILITATION NUTRITION FOR INJURIES AND RECOVERY	8920102229		T=2	P=0	ECTS=3.18	1	July 17, 2024																																	
<b>AUTHORIZATION</b>	<b>SP Developer</b>		<b>Course Cluster Coordinator</b>			<b>Study Program Coordinator</b>																																		
	.....		.....			Dr. Heri Wahyudi, S.Or., M.Pd.																																		
<b>Learning model</b>	Project Based Learning																																							
<b>Program Learning Outcomes (PLO)</b>	PLO study program that is charged to the course																																							
	Program Objectives (PO)																																							
	PLO-PO Matrix																																							
	<table border="1" style="margin: auto;"> <tr> <td style="width: 10%; text-align: center;">P.O</td> <td colspan="16"></td> </tr> </table>							P.O																																
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<b>Short Course Description</b>	PO Matrix at the end of each learning stage (Sub-PO)																																							
	<table border="1" style="margin: auto;"> <tr> <td style="width: 10%; text-align: center;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;">11</td> <td style="text-align: center;">12</td> <td style="text-align: center;">13</td> <td style="text-align: center;">14</td> <td style="text-align: center;">15</td> <td style="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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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																								
<b>References</b>	<p><b>Main :</b></p> <ol style="list-style-type: none"> <li>1. Luke R. Bucci. 2020. Nutrition Applied to Injury Rehabilitation And Sports Medicine (Nutrition In Exercise &amp; Sport) 1st Edition. CRC Press</li> <li>2. Kevin Currell. 2016. Performance Nutrition. The Crowood Press</li> <li>3. Joseph E. Herrera, Grant Cooper, Scott Curtis, Gerardo Miranda-Comas. 2008. Essential Sports Medicine A Clinical Guide for Students and Residents. Springer International Publishing</li> </ol> <p><b>Supporters:</b></p>																																							
<b>Supporting lecturer</b>	Anna Noordia, S.TP., M.Kes. dr. Ananda Perwira Bakti, M.Kes. Gita Benefita Suprianto, S.Psi., M.Sc.																																							
<b>Week-</b>	<b>Final abilities of each learning stage (Sub-PO)</b>	<b>Evaluation</b>		<b>Help Learning, Learning methods, Student Assignments, [ Estimated time]</b>		<b>Learning materials [ References ]</b>	<b>Assessment Weight (%)</b>																																	
		<b>Indicator</b>	<b>Criteria &amp; Form</b>	<b>Offline ( offline )</b>	<b>Online ( online )</b>																																			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)																																	

1	Able to analyze the basic concepts of sports injury management and rehabilitation	1.Explain the basic concepts of injury management 2.Explain the concept of sports injury rehabilitation		Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent assignment to search for literature related to basic concepts of rehabilitation nutrition for injury and recovery 2 X 50			0%
2	Able to analyze basic concepts of psychology and nutrition for rehabilitation	1.Explains the basic concepts of psychology and nutrition for rehabilitation 2.Explains the relationship between psychology and nutrition for rehabilitation and recovery		Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent assignment to search for literature related to Nutrition, rehabilitation for injury and recovery 2 X 50			0%
3	Able to analyze the pathophysiology of musculoskeletal injuries	Explain the pathophysiology of musculoskeletal injuries		Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent task to search for literature related to the Pathophysiology of musculoskeletal injuries 2 X 50			0%
4	Able to analyze the pathophysiology of musculoskeletal injuries	Explain the pathophysiology of musculoskeletal injuries		Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent task to search for literature related to the Pathophysiology of musculoskeletal injuries 2 X 50			0%

5	Able to analyze basic concepts of nutritional management for injury rehabilitation and recovery	<ol style="list-style-type: none"> <li>1.Explain the meaning of Carnitine, Creatine and Gelatin</li> <li>2.Explain the types and characteristics of Carnitine, Creatine and Gelatin</li> <li>3.Explain the interactions between Carnitine, Creatine and Gelatin</li> </ol>		<p>Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent assignment to search for related literature Basic concepts of nutritional management for injury rehabilitation and recovery 2 X 50</p>			0%
6	Able to analyze total calories, protein and fat intake for prevention, rehabilitation and recovery	<ol style="list-style-type: none"> <li>1.Explain the relationship between total calories and injury prevention, rehabilitation and recovery</li> <li>2.Explain the relationship between protein and amino acids with injury prevention, rehabilitation and recovery</li> <li>3.Explain the relationship between fats and fatty acids with injury prevention, rehabilitation and recovery</li> </ol>		<p>Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent assignment to search for literature related to the relationship between total calories and injury prevention, rehabilitation and recovery 2 X 50</p>			0%
7	Able to analyze total calories, protein and fat intake for prevention, rehabilitation and recovery	<ol style="list-style-type: none"> <li>1.Explain the relationship between total calories and injury prevention, rehabilitation and recovery</li> <li>2.Explain the relationship between protein and amino acids with injury prevention, rehabilitation and recovery</li> <li>3.Explain the relationship between fats and fatty acids with injury prevention, rehabilitation and recovery</li> </ol>		<p>Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent assignment to search for literature related to the relationship between total calories and injury prevention, rehabilitation and recovery 2 X 50</p>			0%
8	UTS			2 X 50			0%
9	Able to analyze Vitamins and minerals for prevention, rehabilitation and recovery	<ol style="list-style-type: none"> <li>1.Explain Vitamins for prevention, rehabilitation and recovery</li> <li>2.Explains minerals for prevention, rehabilitation and recovery</li> </ol>		<p>Learning Form: Face-to-face lecture Learning Method: PBL 2 X 50</p>			0%
10	Able to analyze Protease, nucleic acids, enzymes and antioxidants for prevention, rehabilitation and recovery	<ol style="list-style-type: none"> <li>1.Explain Protease</li> <li>2.Explain enzymes and antioxidants</li> <li>3.Explain antioxidants</li> </ol>		<p>Learning Form: Face-to-face lecture Learning Method: PBL 2 X 50</p>			0%
11	Able to analyze Protease, nucleic acids, enzymes and antioxidants for prevention, rehabilitation and recovery	<ol style="list-style-type: none"> <li>1.Explain Protease</li> <li>2.Explain enzymes and antioxidants</li> <li>3.Explain antioxidants</li> </ol>		<p>Learning Form: Face-to-face lecture Learning Method: PBL 2 X 50</p>			0%

12	Able to analyze Glycosaminoglycans, bioflavonoids and curcumin	1.Explain Glycosaminoglycans 2.Explains bioflavonoids and curcumin		Learning Form: Face-to-face lecture PBL method Student assignment Independent assignment to search for literature related to other substances in food that can act as ergogenic aids 2 X 50			0%
13	Able to analyze Glycosaminoglycans, bioflavonoids and curcumin	1.Explain Glycosaminoglycans 2.Explains bioflavonoids and curcumin		Learning Form: Face-to-face lecture PBL method Student assignment Independent assignment to search for literature related to other substances in food that can act as ergogenic aids 2 X 50			0%
14	Able to evaluate Research and implementation of comprehensive nutritional protocols in musculoskeletal healing	Explains research results and implementation of comprehensive nutritional protocols in musculoskeletal healing		Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent task to search for literature related to benefits and risks 2 X 50			0%
15	Able to evaluate Research and implementation of comprehensive nutritional protocols in musculoskeletal healing	Explains research results and implementation of comprehensive nutritional protocols in musculoskeletal healing		Learning Form: Face-to-face lecture Learning Method: Lecture, discussion and question and answer Student assignment Independent task to search for literature related to benefits and risks 2 X 50			0%
16							0%

**Evaluation Percentage Recap: Project Based Learning**

No	Evaluation	Percentage
		0%

**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.