



Universitas Negeri Surabaya
Faculty of Sports and Health Sciences,
Physical Education, Health & Recreation Undergraduate Study
Program

Document
Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																																																																																																
Sports Nutrition Science	8520102054	Health	T=2 P=0 ECTS=3.18	3	July 16, 2024																																																																																																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator	Study Program Coordinator																																																																																																																	
	Faridha Nurhayati, S.Pd., M.Kes.		Dr. dr. Endang Sri Wahjuni, M.Kes.	Dr. Mochamad Ridwan, S.Pd., M.Pd.																																																																																																																	
Learning model	Project Based Learning																																																																																																																				
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																																																																																																				
	Program Objectives (PO)																																																																																																																				
	PO - 1	Demonstrate a responsible attitude towards work in the field of sports nutrition independently																																																																																																																			
	PO - 2	Able to make appropriate decisions in the context of solving problems in the field of sports nutrition, based on the results of information and data analysis																																																																																																																			
	PO - 3	Able to solve problems related to sports nutrition science and make decisions based on science																																																																																																																			
	PO - 4	Master theoretical concepts in the field of knowledge and theoretical concepts of sports nutrition science in depth, and be able to formulate procedural problem solving																																																																																																																			
	PLO-PO Matrix																																																																																																																				
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PO Matrix at the end of each learning stage (Sub-PO)																																																																																																																					
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Short Course Description	This course will discuss the basics of nutrition, energy metabolism processes, nutritional regulation in sports activities and nutritional problems. Lectures are conducted to measure the achievement of learning competencies using a case study approach, discussions, questions and answers, assignments. Assessment is carried out by performance, written tests and portfolios.																																																																																																																				
References	Main :																																																																																																																				
	<ol style="list-style-type: none"> 1. Sunita Almatier, 2003. Prinsip Dasar Ilmu Gizi. T Gramedia Pustaka Tama Jakarta 2. Gizi Atlet Sepak Bola. www.gizi.net 3. Gizi untuk olahraga prestasi. www.gizi.net 4. Irianto, Djoko Pekik, 2007. Panduan Gizi Lengkap Keluarga dan Olahragawan. Yogyakarta: Andi Offset 5. Supariasa, dkk, 2002. Pemeriksaan Status Gizi. Jakarta: EGC Penerbit Buku kedokteran 																																																																																																																				
	Supporters:																																																																																																																				

	<ol style="list-style-type: none"> 1. P. Hills, Andrew, King, Neil A. dan Byrne, Nuala M., 2007. Children, Obesity and Exercise - Prevention, treatment and management of childhood and adolescent obesity, Oxon: Routledge 2. Jeukendrup, Asker, 2010. Sport Nutrition-From Lab to Kitchen, Maidenhead: Meyer & Meyer Sport 3. Gropper, Sareen S. and Smith, Jack L. 2013. Advanced Nutrition and Human Metabolism, Wadsworth: Cengage Learning 4. Lamprecht, Manfred, 2015. Antioxidants in Sport Nutrition, New York: CRC Press 						
Supporting lecturer	Junaidi Budi Prihanto, S.KM., M.KM., Ph.D. Faridha Nurhayati, S.Pd., M.Kes. dr. Tri Putra Rahmad Ramadani, Sp.Rad. Aby Nugrah Septanto, S.Kep.,Ns., M.Sc. Arifah Kaharina, S.Pd., M.Kes. Dr. Novadri Ayubi, 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	Able to analyze the meaning of nutrition, nutrients, sports nutrition and their scope	<ol style="list-style-type: none"> 1. Able to analyze the meaning of nutrition, nutrients and sports nutrition 2. Able to analyze the scope of sports nutrition science 	Criteria: Oral Tests and online tests (quizziz) Form of Assessment : Participatory Activities, Tests	Case studies, lectures, discussions and questions and answers 2 X 50	Case studies, lectures, discussions through Vi-learning 2x50	Material: Understanding nutrition, nutrients and sports nutrition and their scope. Reference: Sunita Almatsier, 2003. Basic Principles of Nutrition. T Gramedia Pustaka Tama Jakarta	5%
2	Able to analyze various macronutrients and their sources	<ol style="list-style-type: none"> 1. Able to identify and analyze macronutrient elements (carbohydrates, fats and proteins) and their sources 2. Able to analyze the function and consequences of excess and deficiency of macronutrient nutrients 	Criteria: Performance test Form of Assessment : Participatory Activities, Portfolio Assessment	Case studies, presentations, discussions and questions and answers 2 X 50	Case studies, presentations, discussions and questions and answers through Vi-learning 2 X 50	Material: Carbohydrates, Fats and Proteins Reference: Sunita Almatsier, 2003. Basic Principles of Nutrition. T Gramedia Pustaka Tama Jakarta Material: Various nutrients Reference: Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes. Yogyakarta: Andi Offset	5%
3	Able to analyze various micronutrients (vitamins) and their sources	<ol style="list-style-type: none"> 1. Able to analyze micronutrient elements (vitamins) and their sources 2. Able to analyze the function and consequences of excess and deficiency of micronutrients (vitamins) 	Criteria: Performance test Form of Assessment : Participatory Activities, Portfolio Assessment	Case study, discussion, question and answer, and presentation 2 X 50	Case studies, discussions, questions and answers, and presentations via Vilearning 2 X 50	Material: Vitamins Library: Sunita Almatsier, 2003. Basic Principles of Nutrition Science. T Gramedia Pustaka Tama Jakarta Material: Various nutrients Reference: Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes. Yogyakarta: Andi Offset	5%

4	Able to analyze various types of micronutrients (minerals) and their sources	<ol style="list-style-type: none"> 1. Able to analyze micronutrient elements (minerals) and their sources 2. Able to analyze the function and consequences of excess and deficiency of micronutrients (minerals) 	<p>Criteria: Performance test</p> <p>Form of Assessment : Participatory Activities, Portfolio Assessment</p>	Case study, discussion, question and answer, and presentation 2 X 50	Case studies, discussions, questions and answers, and presentations via Vi-learning 2 X 50	<p>Material: Minerals</p> <p>Reference: <i>Sunita Almtsier, 2003. Basic Principles of Nutrition. T Gramedia Pustaka Tama Jakarta</i></p> <hr/> <p>Material: Various Nutrients</p> <p>Reference: <i>Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes. Yogyakarta: Andi Offset</i></p>	5%
5	Able to analyze nutritional needs	<ol style="list-style-type: none"> 1. Identify nutritional elements and their sources 2. Identify the function and consequences of excess and deficiency of nutrients 	<p>Criteria: Oral Tests and online tests (quizziz)</p> <p>Form of Assessment : Participatory Activities, Tests</p>	Case study, discussion and questions and answers 2 X 50	Case studies, discussions and questions and answers through Vi-learning 2 X 50	<p>Material: Nutrient Needs</p> <p>References: <i>Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes. Yogyakarta: Andi Offset</i></p> <hr/> <p>Material: Nutritional Requirements</p> <p>Reference: <i>Nutrition for sports performance. www.gizi.net</i></p>	5%
6	Able to analyze the process of food digestion and absorption of nutrients	<ol style="list-style-type: none"> 1. Able to analyze the process of digestion of carbohydrates, fats and proteins 2. Able to analyze the process of absorption of carbohydrates, fats and proteins 	<p>Criteria: Oral Tests and online tests (quizziz)</p> <p>Form of Assessment : Participatory Activities, Tests</p>	Case study, discussion and questions and answers 2 X 50	Case studies, discussions and questions and answers through Vi-learning 2 X 50	<p>Material: Food Digestion</p> <p>Bibliography: <i>Sunita Almtsier, 2003. Basic Principles of Nutrition Science. T Gramedia Pustaka Tama Jakarta</i></p>	5%
7	Able to analyze metabolic processes and excretion of nutrients	<ol style="list-style-type: none"> 1. Able to analyze the metabolic processes of nutrients 2. Able to analyze the process of nutrient excretion 	<p>Criteria: Oral Tests and online tests (quizziz)</p> <p>Form of Assessment : Participatory Activities, Tests</p>	Case study, discussion and questions and answers 2 X 50	Case studies, discussions and questions and answers through Vi-learning 2 X 50	<p>Material: Metabolism and excretion of nutrients</p> <p>Reference: <i>Sunita Almtsier, 2003. Basic Principles of Nutrition. T Gramedia Pustaka Tama Jakarta</i></p> <hr/> <p>Material: Metabolism and excretion of nutrients</p> <p>Reference: <i>Nutrition for sports performance. www.gizi.net</i></p>	5%

8	UTS	<ol style="list-style-type: none"> 1. Able to analyze the meaning and scope of sports nutrition 2. Able to analyze macro nutrients and micro nutrients 3. Able to analyze nutritional needs 4. Able to analyze the process of digestion and absorption of nutrients 5. Able to analyze metabolic processes and excretion of nutrients 	<p>Criteria: Written test</p> <p>Form of Assessment : Participatory Activities, Tests</p>	Case study 2 X 50	Case study via vi-learning 2 X 50	<p>Material: Scope of Nutrition Science</p> <p>Literature: <i>Sunita Almatsier, 2003. Basic Principles of Nutrition Science. T Gramedia Pustaka Tama Jakarta</i></p> <hr/> <p>Material: Science of Sports Nutrition, Nutrition and Nutrient Needs</p> <p>Reference: <i>Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes. Yogyakarta: Andi Offset</i></p>	10%
9	Able to apply and analyze methods for measuring nutritional status	<ol style="list-style-type: none"> 1. Able to analyze how to measure nutritional status 2. Able to analyze how to use anthropometric indices 	<p>Criteria: Performance test</p> <p>Form of Assessment : Participatory Activities, Practice/Performance</p>	Case study, discussion, questions and answers and assignments 2 X 50	Case studies, discussions, questions and answers and assignments through Vi-learning 2 X 50	<p>Material: Measuring Nutritional Status</p> <p>Reference: <i>Supariasa, et al, 2002. Examination of Nutritional Status. Jakarta: EGC Medical Book Publisher</i></p>	5%
10	Able to apply and analyze the results of measuring nutritional status	<ol style="list-style-type: none"> 1. Able to apply nutritional status measurements 2. Able to analyze the results of nutritional status measurements 	<p>Criteria: Performance test</p> <p>Form of Assessment : Participatory Activities, Practice/Performance</p>	Case study, discussion, questions and answers and assignments 2 X 50	Case studies, discussions, questions and answers and assignments through Vi-learning 2 X 50	<p>Material: Measuring Nutritional Status</p> <p>Reference: <i>Supariasa, et al, 2002. Examination of Nutritional Status. Jakarta: EGC Medical Book Publisher</i></p>	5%
11	Able to apply and analyze the role of nutrition for developing sports achievements	<ol style="list-style-type: none"> 1. Able to identify energy calculation components 2. Able to carry out energy calculations 	<p>Criteria: Performance test</p> <p>Form of Assessment : Participatory Activities, Practice/Performance</p>	Case Study, discussion, questions and answers and assignments 2 X 50	Case Study, discussion, questions and answers and assignments via Vi-learning 2 X 50	<p>Material: Calculation of Energy Requirements</p> <p>Reference: <i>Nutrition for sports performance. www.gizi.net</i></p> <hr/> <p>Material: Calculation of Energy Needs</p> <p>Reference: <i>Nutrition for Football Athletes. www.gizi.net</i></p>	5%
12	Able to apply and analyze the role of nutrition for developing sports achievements	<ol style="list-style-type: none"> 1. Able to identify components of menu preparation 2. Able to analyze energy calculation results 3. Able to arrange a food menu according to energy needs 	<p>Criteria: Oral test</p> <p>Form of Assessment : Participatory Activities</p>	Case study, discussion, questions and answers and assignments 2 X 50	Case studies, discussions, questions and answers and assignments through Vi-learning 2 X 50	<p>Material: Preparation of Bibliographic Menus: <i>Nutrition for sports achievements. www.gizi.net</i></p> <hr/> <p>Material: Preparing a Library Menu: <i>Nutrition for Football Athletes. www.gizi.net</i></p>	5%

13	Able to apply and analyze the role of nutrition for developing sports achievements	<ol style="list-style-type: none"> 1. Able to analyze athletes' food arrangements during training 2. Able to analyze athletes' food arrangements during competitions 3. Able to analyze athletes' food arrangements during the recovery period 	<p>Criteria: Performance test</p> <p>Form of Assessment : Participatory Activities</p>	Case study, discussion, questions and answers and assignments 2 X 50	Case studies, discussions, questions and answers and assignments through Vi-learning 2 X 50	<p>Material: Eating arrangements before, during and after competition.</p> <p>Reference: <i>Nutrition for sports performance.</i> www.gizi.net</p>	5%
14	Able to analyze the impact of food, drinks and supplements on physical performance	<ol style="list-style-type: none"> 1. Able to analyze the reasons for using supplements 2. Able to analyze various types of food, drinks and supplements, and their impact on physical performance 	<p>Criteria: Oral Tests and online tests (quizziz)</p> <p>Form of Assessment : Participatory Activities</p>	Case study, discussion and questions and answers 2 X 50	Case studies, discussions and questions and answers through Vi-learning 2 X 50	<p>Material: The Impact of Food, Drinks and Supplements on Physical Performance</p> <p>References: <i>Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes.</i> Yogyakarta: Andi Offset</p>	5%
15	Able to identify and analyze nutritional problems in Indonesia and athlete nutritional problems	<ol style="list-style-type: none"> 1. Able to identify and analyze nutritional problems in Indonesia 2. Able to identify and analyze nutritional problems in athletes 	<p>Criteria: Oral Tests and online tests (quizziz)</p> <p>Form of Assessment : Participatory Activities</p>	Case study, discussion and questions and answers 2 X 50	Case studies, discussions and questions and answers through Vi-learning 2X50	<p>Material: Nutritional Problems</p> <p>Bibliography: <i>Sunita Almatsier, 2003. Basic Principles of Nutritional Science. T Gramedia Pustaka Tama Jakarta</i></p> <hr/> <p>Material: Nutritional Problems for Athletes</p> <p>References: <i>Irianto, Djoko Pekik, 2007. Complete Nutrition Guide for Families and Athletes.</i> Yogyakarta: Andi Offset</p>	5%

16	UAS	<p>1. Able to apply and analyze methods for measuring nutritional status</p> <p>2. Able to apply and analyze the role of nutrition for developing sports achievements</p> <p>3. Able to analyze the impact of food, drinks and supplements on physical performance</p> <p>4. Able to identify and analyze nutritional problems in Indonesia and in athletes</p>	<p>Criteria: Written test</p> <p>Form of Assessment : Participatory Activities, Tests</p>	Case study 2 X 50	Case study via Vi-learning 2 X 50	<p>Material: Nutritional Problems Bibliography: <i>Sunita Almatzier, 2003. Basic Principles of Nutritional Science. T Gramedia Pustaka Tama Jakarta</i></p> <hr/> <p>Material: Athletes' Nutrition Problems Reference: <i>Nutrition for sports performance. www.gizi.net</i></p> <hr/> <p>Material: Calculating Energy Requirements, Preparing Menus and Arranging Meals Before, During and After Competing Literature: <i>Nutrition for Sports Performance. www.gizi.net</i></p> <hr/> <p>Material: Calculating Energy Requirements, Preparing Menus and Arranging Meals Before, During and After Competing Literature: <i>Nutrition for Football Athletes. www.gizi.net</i></p>	20%
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Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	60%
2.	Portfolio Assessment	7.5%
3.	Practice / Performance	7.5%
4.	Test	25%
		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.

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.