



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											
Sports Nutrigenomics	8920102255		T=1 P=1 ECTS=3.18	6	July 17, 2024											
AUTHORIZATION	SP Developer		Course Cluster Coordinator	Study Program Coordinator												
	Dr. Heri Wahyudi, S.Or., M.Pd.												
Learning model	Case Studies															
Program Learning Outcomes (PLO)	PLO study program that is charged to the course															
	Program Objectives (PO)															
	PLO-PO Matrix															
		P.O														
Short Course Description	Nutrigenomics is a science that studies the relationship between genetic factors and nutrients that have a specific composition and are capable of inducing gene expression in the body. The composition of nutritional needs based on genotype profiles will provide knowledge about what types of food are suitable for consumption. Shows what types of food we need and what foods we should avoid, based on a database of genes associated with a disease. The food we eat is composed of chemical molecules that are capable of inducing gene expression. Nutrigenomics is the application of genomics in the development of new technologies, such as transcriptomics, proteomics, metabolomics and epigenomics based on the analysis of gene function and expression. This knowledge is important for maintaining health and preventing potential chronic diseases that might attack so that the need for medicines can also be reduced.															
	References	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Main :</td> <td colspan="5"></td> </tr> <tr> <td>Supporters:</td> <td colspan="5"></td> </tr> </table>				Main :						Supporters:				
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Supporting lecturer	Dr. Dita Yuliastrid, S.Si., M.Kes. Anna Noordia, S.TP., M.Kes. dr. Ananda Perwira Bakti, 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 basic concepts of nutrigenetics and nutrigenomics	1.1 Explain the learning objectives of nutrigenetics and nutrigenomics 1.2 Explain the basic concepts of nutrigenetics and nutrigenomics		Learning Form: Virtual face-to-face lecture via vlearning and zoom Learning Method: Lecture, discussion and question and answer [TM : 1 (2x50')] Student assignment Independent assignment via assignment in vlearning 2 X 50			0%
2	Able to explain cell responses to the microenvironment (nutrition)	2.1 Explain the concept of micro nutrition 2.2 Explain cells 2.3 Explain cell responses to the micro environment (nutrients)		Learning Form: Virtual face-to-face lecture via vlearning and zoom Learning Method: Lecture, discussion and question and answer [TM : 1 (2x50')] Student assignment Independent assignment via assignment on vlearning 2 X 50			0%
3	Able to explain the components of genes, genomics of body composition	3.1. Explain the components of genes 3.2. Explain body composition 3.3. Explaining genomic body composition		Learning Form: Virtual lecture via vlearning and zoom Learning Method: Lecture, discussion and question and answer 2 X 50			0%
4	Able to explain the metabolism of genes and food substances	4.1. Explain metabolism 4.2. Explain gene metabolism 4.3. Explaining food metabolism 4.4 Explaining the relationship between gene metabolism and food metabolism		Learning Form: Virtual face-to-face lecture via vlearning and zoom Learning Method: Lecture, discussion and question and answer Student assignments Independent assignments via assignments on vlearning 2 X 50			0%

5	Able to understand the genomics of eating behavior and appetite regulation	5.1 Explaining the genomics of eating behavior 5.2 Explaining the genomics of appetite regulation		Learning Form: Virtual face-to-face lecture via vlearning and zoom Learning Method: Lecture, discussion and question and answer Student assignments Independent assignments via assignments on vlearning 2 X 50		0%
6						0%
7						0%
8						0%
9						0%
10						0%
11						0%
12						0%
13						0%
14						0%
15						0%
16						0%

Evaluation Percentage Recap: Case Study

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** abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities 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.