	Universitas Negeri Surabaya Faculty of Sports and Health Sciences, Undergraduate Nutrition Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Basic Nutrition Science	1321103003	Compulsory Study Program Subjects	T=0	P=0	ECTS=0	1	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	**Case Studies**	
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**	
	PLO-9	Able to have an attitude of belief in the Almighty God, be ethical, disciplined, aware of the law, have a social and cultural insight, and behave professionally.
	PLO-11	Able to solve problems in the field of nutrition by applying scientific thinking concepts and cutting-edge approaches through research, scientific literacy and publications.
	Program Objectives (PO)	
	PO - 1	Able to formulate problems in managing nutritious food using concepts, examples and procedures in Basic Nutrition science
	PO - 2	Able to master knowledge about concepts, examples and procedures of Basic Nutrition science for managing nutritious food
	PO - 3	Able to design nutritious food management using knowledge of Basic Nutrition science
	PO - 4	Able to be responsible for designing nutritious food management that utilizes Basic Nutrition knowledge
	PLO-PO Matrix	

P.O	PLO-9	PLO-11
PO-1		
PO-2		
PO-3		
PO-4		

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PO-1																
PO-2																
PO-3																
PO-4																

Short Course Description	This course discusses concepts. The material in this lecture also includes: Activities in this course are carried out through learning experiences, lectures, discussions and assignments.	
References	**Main :**	

	1. Almatsier, S. 2002. Prinsip Dasar Ilmu Gizi. Gramedia Pustaka Utama, Jakarta 2. Hardinsyah & Supariasa, I.D.N. 2017. Ilmu Gizi: Teori dan Aplikasi. EGC, Jakarta 3. Peraturan Menteri Kesehatan Republik IndonesiaNo 75 tahun 2013 tentang Angka Kecukupan Gizi yang Dianjurkan Bagi Bangsa Indonesia 4. Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: W.B Saunders Company. 5. Setyawati, VAV, dan Hartini, Eko. 2018. Buku Ajar Dasar Ilmu Gizi Kesehatan Masyarakat. Deepublish
	Supporters:
Supporting lecturer	Prof. Dr. Rita Ismawati, S.Pd., M.Kes. Cleonara Yanuar Dini, S.Gz., Dietisien, M.Sc. Satwika Arya Pratama, S.Gz., M.Sc.

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	Understand the RPS and carry out lecture contracts. Understand the meaning and concepts of nutritional science	1.Carry out a study contract 2.Explain the meaning and concepts of nutritional science 3.Explain the concept of balanced nutrition	**Criteria:** Objective test form **Form of Assessment** : Participatory Activities	Learning Method: Lecture, Question and Answer, Discussion 3 X 50		**Material:** Introduction to nutrition **Bibliography:** *Almatsier, S. 2002. Basic principles of nutrition. Gramedia Pustaka Utama, Jakarta* **Material:** introduction to nutrition **Bibliography:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** RPS Basic Nutrition Science **Literature:**	0%

2	Understand the meaning and concept of energy in nutritional science	1. Explain the meaning of energy 2. Explain the concept of energy requirements 3. Explain and calculate daily energy needs 4. Explain the effects of excess and lack of energy	**Criteria:** 1. Objective test form 2. Task-1: Calculate Daily Energy Requirements **Form of Assessment** : Participatory Activities	Learning Method: Lecture, Question and Answer, Discussion, 3 X 50 assignments		**Material:** Energy **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Energy **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** energy **References:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** energy **References:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	5%

3	Understand the meaning and concept of carbohydrates in nutritional science	1. Explain the meaning of carbohydrates 2. Explain the types of carbohydrates 3. Explain examples of food sources of carbohydrates 4. Explain the impact of excess and lack of carbohydrates	**Criteria:** 1. Objective test form 2. Task-2: Identify food sources of carbohydrates **Form of Assessment** : Participatory Activities	Lectures, Questions and Answers, Discussions, and 3 X 50 assignments		**Material:** Carbohydrates **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Carbohydrates **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** Carbohydrates **Reference:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Carbohydrates **References:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	0%

4	Understand the meaning and concept of fat in nutritional science	1. Explain the meaning of fat 2. Explain the types of fat 3. Explain examples of food sources of fat 4. Explain the impact of excess and lack of fat	**Criteria:** 1. Objective test 2. Task-3: Identify food sources of fat **Form of Assessment** : Participatory Activities	Lectures, Questions and Answers, Discussions and Assignments 3 X 50		**Material:** Fats **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Fat **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** Fat **Bibliography:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Fat **Literature:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	0%

5	Understand the meaning and concept of protein in nutritional science	1.1. Explain the meaning of protein 2.2. Explain the types of protein 3.3. Explain examples of food sources of protein 4.4. Explain the impact of excess and deficiency of protein	**Criteria:** 1.objective test 2.Task-4: Identify food sources of protein	Lectures, Questions and Answers, Discussions and Assignments 3 X 50		**Material:** Protein **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Protein **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** protein **References:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Protein **Library:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	10%
6	Understand the meaning and concept of vitamins in nutritional science	1.Explain the meaning of vitamins 2.Explain the types of vitamins 3.Explain examples of food sources of vitamins 4.Explain the effects of excess and deficiency of vitamins	**Criteria:** 1.Objective test 2.Task-5: Identify food sources of vitamins **Form of Assessment** : Participatory Activities	Lectures, Questions and Answers, Discussions and Assignments 3 X 50		**Material:** Vitamins **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Vitamins **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta*	100%

7	Understand the meaning and concept of minerals in nutritional science	1. Explain the meaning of minerals 2. Explain the types of minerals 3. Explain examples of food sources of minerals 4. Explain the impact of excess and deficiency of minerals	**Criteria:** 1. Objective test 2. Task-6: Identify food sources of minerals **Form of Assessment** : Participatory Activities	Lectures, Questions and Answers, Discussions and Assignments 2 X 50		**Material:** Minerals **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Minerals **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** Minerals **Library:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Minerals **Library:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	10%
8	Midterm exam			2 X 50			0%

9	Understand the meaning and concept of fluids and electrolytes in nutrition science	1.1. Explain the meaning and concept of fluids and electrolytes 2.2. Explain the sources of fluids and electrolytes 3.3. Calculate daily fluid requirements 4.4. Explain the impact of excess and deficiency of fluids and electrolytes	**Criteria:** 1.objective test 2.Task-7: calculate daily fluid requirements **Form of Assessment** : Participatory Activities	Lectures, Questions and Answers, Discussions and Assignments 3 X 50		**Material:** Electrolytes **References:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Electrolytes **Library:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** Electrolytes **References:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Electrolytes **References:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	5%

10	Understand the concept of digestion, absorption and metabolism of nutrients in general	1.1. Explain the concept of digestion of nutrients 2.2. Explain the concept of nutrient absorption 3.3. Explain the metabolism of nutrients	**Criteria:** Objective test	Lectures, Questions and Answers, Discussions and Assignments 3 X 50		**Material:** Nutrient metabolism. **Reference:** *Almatsier, S. 2002. Basic principles of nutritional science. Gramedia Pustaka Utama, Jakarta* **Material:** Nutrient metabolism **Reference:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** Nutrient metabolism **References:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Nutrient metabolism **References:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	5%
11	Understand the concept of interchangeable food ingredients (BMP), food ingredient composition list (DKBM) and Indonesian food composition table (TKPI)	1.Explain the concept of interchangeable foodstuffs (BMP) 2.Explain the concept of food ingredient composition list (DKBM) 3.Explain the concept of the Indonesian food composition table (TKPI)	**Criteria:** Objective test **Form of Assessment** : Participatory Activities	Lectures, Questions and Answers, Discussions and Assignments 3 X 50		**Material:** Exchange food ingredients **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** list of food ingredient composition **Reference:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta*	10%

12	Understand and calculate daily energy needs	1. Understand and calculate daily energy needs 2. Objective test	**Form of Assessment** : Participatory Activities	Group Work, Discussion, Project Based Learning 3 X 50		**Material:** Calculating energy needs **References:** *Almatsier, S. 2002. Basic Principles of Nutrition. Gramedia Pustaka Utama, Jakarta* **Material:** Energy **Library:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.*	10%
13	Calculate daily nutritional requirements	1. Calculate daily carbohydrate needs 2. Calculate daily fat requirements 3. Calculate daily protein requirements	**Criteria:** 1. Calculate daily carbohydrate, fat and protein needs 2. Objective test **Form of Assessment** : Participatory Activities	Group Work, Discussion, Project Based Learning 3 X 50		**Material:** Calculating daily nutritional needs **Reference:** *Almatsier, S. 2002. Basic Principles of Nutrition Science. Gramedia Pustaka Utama, Jakarta* **Material:** Calculating daily nutritional needs **Reference:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** Calculating daily nutritional needs **References:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.* **Material:** Calculating daily nutritional needs **References:** *Setyawati, VAV, and Hartini, Eko. 2018. Basic Textbook of Public Health Nutrition Science. Deepublish*	10%

14	Design a menu for daily nutritional needs	1.1. Identify food sources of carbohydrates 2.2. Identify food sources of protein 3.3. Identify food sources of fat 4.4. Identify food sources of vitamins and minerals	**Criteria:** 1.Identify food sources of carbohydrates, proteins, fats, vitamins and minerals 2.Objective test **Form of Assessment** : Participatory Activities, Practice/Performance	Group Work, Discussions, Presentations and Projects 6 X 50		**Material:** daily nutritional needs menu **Reference:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** menu for daily nutritional needs **Reader:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.*	10%
15	Design a menu for daily nutritional needs	Design a menu for daily nutritional needs	**Criteria:** 1.Design a menu for daily nutritional needs 2.Objective test **Forms of Assessment** : Participatory Activities, Practical Assessment, Practical / Performance	Practical 6 X 50		**Material:** daily nutritional needs menu **Reference:** *Hardinsyah & Supariasa, IDN 2017. Nutrition Science: Theory and Application. EGC, Jakarta* **Material:** menu for daily nutritional needs **Reader:** *Mahan LK & Sylvia ES. 2011. Krause's Food & the Nutrition Care Process 13th Edition. Philadelphia: WB Saunders Company.*	5%
16	Final exams						0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	156.67%
2.	Practical Assessment	1.67%
3.	Practice / Performance	6.67%
		100%

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.