



**Universitas Negeri Surabaya  
Faculty of Sports and Health Sciences,  
Undergraduate Nutrition 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>																																																																																			
Nutrition in the Life Cycle	1321103037	Compulsory Study Program Subjects	T=0 P=0 ECTS=0	2	August 22, 2022																																																																																			
<b>AUTHORIZATION</b>	<b>SP Developer</b>		<b>Course Cluster Coordinator</b>		<b>Study Program Coordinator</b>																																																																																			
	Choirul Anna Nur Afifah, S.Pd., M.Si.; Amalia Ruhana, SP., MPH.; Cleonara Yanuar Dini, S.Gz., M.Sc., RD		Choirul Anna Nur Afifah, S.Pd., M.Si.		Amalia Ruhana, S.P., M.P.H.																																																																																			
<b>Learning model</b>	<b>Project Based Learning</b>																																																																																							
<b>Program Learning Outcomes (PLO)</b>	<b>PLO study program that is charged to the course</b>																																																																																							
	<b>PLO-6</b>	Able to utilize science and technology in self-development and solving nutritional problems.																																																																																						
	<b>PLO-8</b>	Able to master the scientific basis of nutrition, food, biomedicine, humanities and public health sciences.																																																																																						
	<b>PLO-9</b>	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.																																																																																						
	<b>Program Objectives (PO)</b>																																																																																							
	<b>PO - 1</b>	Understand the concept of growth and development, need and adequacy of nutrients in various human life cycles, from birth to old age according to recommendations																																																																																						
	<b>PO - 2</b>	Analyze nutritional problems and causal factors in various human life cycles																																																																																						
	<b>PO - 3</b>	Able to study interventions and overcoming nutritional problems based on the concept of life cycle nutrition																																																																																						
	<b>PLO-PO Matrix</b>																																																																																							
		<table border="1" style="width: 100%; text-align: center;"> <tr> <td>P.O</td> <td>PLO-6</td> <td>PLO-8</td> <td>PLO-9</td> </tr> <tr> <td>PO-1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-3</td> <td></td> <td></td> <td></td> </tr> </table>				P.O	PLO-6	PLO-8	PLO-9	PO-1				PO-2				PO-3																																																																						
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<b>PO Matrix at the end of each learning stage (Sub-PO)</b>																																																																																								
	<table border="1" style="width: 100%; text-align: center;"> <tr> <td rowspan="2">P.O</td> <td colspan="16">Week</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> </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> <tr> <td>PO-2</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> <tr> <td>PO-3</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																	PO-2																	PO-3																
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<b>Short Course Description</b>	This course discusses the relationship between nutrition and the life cycle, scope, factors that influence life cycle nutrition starting during pregnancy, breastfeeding, infancy and toddlerhood, adolescence, adulthood to old age, human growth and development according to the life cycle, nutritional needs in each period life, nutritional problems, influencing factors, and designing interventions to overcome nutritional problems using the concept of life cycle nutrition. The learning model uses problem based learning. Learning activities are carried out through discussion and assignment learning experiences.																																																																																							
<b>References</b>	<b>Main :</b>																																																																																							
	<ol style="list-style-type: none"> <li>1. Arisman, MB. 2009. Gizi Dalam Daur Kehidupan. Jakarta :EGC.</li> <li>2. Pritasari, Damayanti D, Lestari NT. 2017. Gizi dalam Daur Kehidupan. Pusat Pendidikan Sumber Daya Manusia Kesehatan</li> <li>3. Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</li> <li>4. Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Gizi dalam Daur Kehidupan, Buku Ajar bagi Mahasiswa Program Studi S1 Gizi UNESA. Surabaya: UNESA University Press</li> </ol>																																																																																							
<b>Supporters:</b>																																																																																								

1. Almtsier, S. 2001. Prinsip Dasar Ilmu Gizi. Jakarta :Gramedia Pustaka Utama.
2. Diény,F, Rahadiyanti, A, dan Kurniawati, DM. 2019. Gizi Prakonsepsi. Jakarta: Penerbit Bumi Medika.
3. Fikawati, Sandra, dkk. 2017. Gizi Anak dan Remaja. PT. Rajagrafindo Persada: Jakarta
4. Fitri, Imelda dan Wiji, Rizki Natia. 2017. Buku Ajar Gizi Reproduksi dan Bukti. Gosyen Publishing: Yogyakarta
5. Hardinsyah, IM Supariasa. 2017. Ilmu Gizi: Teori dan Aplikasi. EGC Jakarta
6. Permenkes no 41 tahun 2014 tentang Pedoman Gizi Seimbang

**Supporting lecturer**  
 Choirul Anna Nur Affah, S.Pd., M.Si.  
 Amalia Ruhana, S.P., M.P.H.  
 Cleonara Yanuar Dini, S.Gz., Dietisien, M.Sc.  
 Lini Anisfatus Sholihah, S.Gz., M.Sc.  
 Fitriana Nugraheni, M.Gizi.  
 Nur Anindya Syamsudi, STR.Keb.,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	Understand the concept of nutrition in the life cycle	<ol style="list-style-type: none"> <li>1.Explain the relationship between nutrition and the life cycle</li> <li>2.Explain the scope of nutrition in the life cycle</li> <li>3.Describe the factors that influence nutrition in the life cycle</li> </ol>	<p><b>Criteria:</b> Understand the concept of nutrition in the life cycle correctly</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Lectures, discussions and questions and answers 3 X 50	<p><b>Material:</b> The relationship between nutrition and the life cycle  <b>Readers:</b>  <i>Affah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <p><b>Material:</b> The concept of cycle nutrition.  <b>References:</b>  <i>Pritasari, Damayanti D, Lestari NT. 2017. Nutrition in the Life Cycle. Health Human Resources Education Center</i></p> <p><b>Material:</b> Human nutritional needs  <b>Reference:</b>  <i>Almatsier, S. 2001. Basic Principles of Nutrition Science. Jakarta: Gramedia Pustaka Utama.</i></p>	2%

2	Understanding nutrition during pregnancy	<ol style="list-style-type: none"> <li>1. Identify changes in pregnancy physiology</li> <li>2. Explain the relationship between nutrition and fetal growth</li> <li>3. Describe the nutritional needs of pregnant women</li> <li>4. Describe nutritional disorders and problems in pregnant women</li> <li>5. Determine the principles of balanced nutrition for pregnant women</li> </ol>	<p><b>Criteria:</b> Understand the principles of nutrition for pregnant women</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		<p>Lectures, group discussions, and questions and answers 3 X 50</p>	<p><b>Material:</b> Physiology of pregnancy <b>References:</b> <i>Affah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Nutritional needs of pregnant women <b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for pregnant women <b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p> <hr/> <p><b>Material:</b> Female reproduction <b>References:</b> <i>Fitri, Imelda and Wiji, Rizki Natia. 2017. Textbook of Reproductive Nutrition and Evidence. Gosyen Publishing: Yogyakarta</i></p>	3%
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3	Understanding nutrition during breastfeeding	<ol style="list-style-type: none"> <li>1.Explain the physiology of lactation (milk secretion)</li> <li>2.Comparing the nutritional composition of breast milk with cow's milk and formula milk</li> <li>3.Determine the nutritional needs of breastfeeding mothers</li> <li>4.Describe the factors that influence breast milk production</li> <li>5.Determine the principles of balanced nutrition for breastfeeding mothers</li> </ol>	<p><b>Criteria:</b> Understand the principles of nutrition for breastfeeding mothers</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> Physiology of lactation</p> <p><b>References:</b> <i>Affah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Nutritional needs of breastfeeding mothers</p> <p><b>References:</b> <i>Pritasari, Damayanti D, Lestari NT. 2017. Nutrition in the Life Cycle. Health Human Resources Education Center</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for breastfeeding mothers</p> <p><b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	3%
4	Understanding the role of nutrition in infancy (0 – 6 months)	<ol style="list-style-type: none"> <li>1.Explaining Exclusive Breastfeeding</li> <li>2.Explain the nutritional needs of babies (0-6 months)</li> <li>3.Describes ASIP management</li> </ol>	<p><b>Criteria:</b> Understand the concept of nutrition for babies 0-6 months</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> ASIP Management</p> <p><b>Reader:</b> <i>Affah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Nutritional needs for babies</p> <p><b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p>	3%

5	Understanding the role of nutrition during the toddler years (6 – 24 months)	<ol style="list-style-type: none"> <li>1.Describes the growth and development of clowns</li> <li>2.Determining the Nutritional Needs of Baduta (6 months – 24 months)</li> <li>3.Describes the principles of MPASI and the principles of providing ASIP MPASI</li> <li>4.Explaining the Nutritional Problems of Exclusive Breastfeeding Ambassadors</li> </ol>	<p><b>Criteria:</b> Understand the principles of MPASI for toddlers</p> <p><b>Form of Assessment :</b> Participatory Activities, Practice/Performance</p>		Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> Baby growth and development</p> <p><b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Nutritional needs of clowns</p> <p><b>Reader:</b> <i>Pritasari, Damayanti D, Lestari NT. 2017. Nutrition in the Life Cycle. Health Human Resources Education Center</i></p> <hr/> <p><b>Material:</b> Baduta's balanced nutrition</p> <p><b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	10%
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6	Understanding the role of nutrition during the toddler years (6 – 24 months)	<ol style="list-style-type: none"> <li>1.Describes the growth and development of clowns</li> <li>2.Determining the Nutritional Needs of Baduta (6 months – 24 months)</li> <li>3.Describes the principles of MPASI and the principles of providing ASIP MPASI</li> <li>4.Explaining the Nutritional Problems of Exclusive Breastfeeding Ambassadors</li> </ol>	<p><b>Criteria:</b> Understand the principles of MPASI for toddlers</p> <p><b>Form of Assessment :</b> Participatory Activities, Portfolio Assessment</p>	Lectures, discussions, questions and answers	Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> Baby growth and development</p> <p><b>References:</b> <i>Affah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Nutritional needs of clowns</p> <p><b>Reader:</b> <i>Pritasari, Damayanti D, Lestari NT. 2017. Nutrition in the Life Cycle. Health Human Resources Education Center</i></p> <hr/> <p><b>Material:</b> Baduta's balanced nutrition</p> <p><b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p> <hr/> <p><b>Material:</b> Nutritional problems for toddlers.</p> <p><b>Reference:</b> <i>Hardinsyah, IM Supriasa. 2017. Nutrition Science: Theory and Applications. EGC Jakarta</i></p>	3%
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7	Describe the nutritional problems of toddlers (6-24 months)	<ol style="list-style-type: none"> <li>1. Describe the growth and development of toddlers</li> <li>2. Determining the Nutritional Needs of Toddlers (&gt;2 years – 5 years)</li> <li>3. Describes the principles of balanced nutrition for toddlers</li> <li>4. Explaining Toddler Nutrition Problems</li> </ol>	<p><b>Criteria:</b> Understanding toddler nutritional problems</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> Nutritional problems for toddlers.</p> <p><b>Reference:</b> <i>Hardinsyah, IM Supariasa. 2017. Nutrition Science: Theory and Applications. EGC Jakarta</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for toddlers</p> <p><b>Reference:</b> <b>Minister of Health</b> <i>Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p> <hr/> <p><b>Material:</b> Nutritional needs of toddlers</p> <p><b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <hr/> <p><b>Material:</b> Nutritional status of toddlers</p> <p><b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p>	5%
8			<p><b>Criteria:</b> All correct answers get a score of 100</p> <p><b>Form of Assessment :</b> Test</p>	MCQs	3 X 50 multiple choice test		15%

9	Understanding the role of nutrition in school-aged children	<ol style="list-style-type: none"> <li>1.Explain the growth and development of school age children</li> <li>2.Determine the nutritional needs of school-aged children</li> <li>3.Identifying factors that influence the nutritional intake of school-aged children</li> <li>4.Applying the principles of balanced nutrition to school-aged children</li> <li>5.Identifying nutritional problems in school-aged children</li> </ol>	<p><b>Criteria:</b> Understand the principles of nutrition for school-aged children</p> <p><b>Form of Assessment :</b> Participatory Activities, Tests</p>		<p>Lectures, group discussions, and questions and answers 3 X 50</p>	<p><b>Material:</b> Nutritional needs of school-age children</p> <p><b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Child growth and development <b>References:</b> <i>Fikawati, Sandra, et al. 2017. Nutrition for Children and Adolescents. PT. Rajagrafindo Persada: Jakarta</i></p> <hr/> <p><b>Material:</b> Children's nutritional problems <b>Reference:</b> <i>Arisman, MB. 2009. Nutrition in the Life Cycle. Jakarta :EGC.</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for children <b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	5%
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10	Understanding the role of nutrition in school-aged children	<ol style="list-style-type: none"> <li>1.Explain the growth and development of school age children</li> <li>2.Determine the nutritional needs of school-aged children</li> <li>3.Identifying factors that influence the nutritional intake of school-aged children</li> <li>4.Applying the principles of balanced nutrition to the lunch menu for school-aged children</li> <li>5.Identifying nutritional problems in school-aged children</li> </ol>	<p><b>Criteria:</b> Prepare a balanced nutritional menu for children appropriately</p> <p><b>Form of Assessment :</b> Participatory Activities, Practice/Performance</p>		<p>Lectures, group discussions, and questions and answers 3 X 50</p>	<p><b>Material:</b> Nutritional needs of school-age children</p> <p><b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Child growth and development</p> <p><b>References:</b> <i>Fikawati, Sandra, et al. 2017. Nutrition for Children and Adolescents. PT. Rajagrafindo Persada: Jakarta</i></p> <hr/> <p><b>Material:</b> Children's nutritional problems</p> <p><b>Reference:</b> <i>Arisman, MB. 2009. Nutrition in the Life Cycle. Jakarta :EGC.</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for children</p> <p><b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	10%
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11	Understanding the role of nutrition in adolescence	<ol style="list-style-type: none"> <li>1.Explain the definition of teenager</li> <li>2.Describe the growth and development of adolescents</li> <li>3.Determining the nutritional needs of adolescents</li> <li>4.Describes the principles of balanced nutrition in adolescents</li> <li>5.Identifying adolescent nutritional problems</li> </ol>	<p><b>Criteria:</b> Understand the concept of nutrition and nutritional problems in adolescents</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		<p>Lectures, group discussions, and questions and answers 3 X 50</p>	<p><b>Material:</b> Adolescent growth and development <b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Nutritional needs of adolescents <b>References:</b> <i>Fikawati, Sandra, et al. 2017. Nutrition for Children and Adolescents. PT. Rajagrafindo Persada: Jakarta</i></p> <hr/> <p><b>Material:</b> Adolescent nutritional problems <b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for teenagers <b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	2%
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12	Understanding the role of nutrition in adolescence	<ol style="list-style-type: none"> <li>1.Explain the concept of preconception nutrition</li> <li>2.Determining nutritional needs in the preconception period</li> <li>3.Identify nutritional problems in the preconception period and the factors that influence them</li> </ol>	<p><b>Criteria:</b> Understand the concept of preconception nutrition</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		<p>Lectures, group discussions, and questions and answers 3 X 50</p>	<p><b>Material:</b> Nutritional needs of adolescents <b>References:</b> <i>Fikawati, Sandra, et al. 2017. Nutrition for Children and Adolescents. PT. Rajagrafindo Persada: Jakarta</i></p> <hr/> <p><b>Material:</b> Adolescent nutritional problems <b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <hr/> <p><b>Material:</b> Concept of preconception nutrition <b>References:</b> <i>Dieny, F, Rahadiyanti, A, and Kurniawati, DM. 2019. Preconception Nutrition. Jakarta: Bumi Medika Publishers.</i></p>	2%
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13	Understand the role of nutrition in adulthood	<ol style="list-style-type: none"> <li>1.Explain the definition of adulthood</li> <li>2.Determine nutritional needs in adulthood</li> <li>3.Outlines the principles of balanced nutrition for adults</li> <li>4.Identify nutritional problems in adulthood and the factors that influence them</li> </ol>	<p><b>Criteria:</b> Understand the principles of nutrition in adulthood and its problems</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> Adult physiology <b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <p><b>Material:</b> Adult nutritional needs <b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <p><b>Material:</b> Balanced nutrition messages for adults <b>Reference:</b> <i>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	2%
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14	Understand the role of nutrition in the elderly	<ol style="list-style-type: none"> <li>1.Explain physiological changes in the elderly</li> <li>2.Determining nutritional needs in the elderly</li> <li>3.Describes the principles of balanced nutrition in the elderly</li> <li>4.Identify problems related to elderly nutrition</li> <li>5.Describe degenerative disease disorders in elderly adults</li> </ol>	<p><b>Criteria:</b> Understand the principles of elderly nutrition and its problems</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Lectures, group discussions, and questions and answers 3 X 50	<p><b>Material:</b> Physiology of the elderly <b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <hr/> <p><b>Material:</b> Definition of elderly <b>References:</b> <i>Afifah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p> <hr/> <p><b>Material:</b> Balanced nutrition for the elderly <b>Reference:</b> <b>Minister of Health</b> <i>Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</i></p>	5%
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15	Able to analyze metabolic syndrome disorders and degenerative diseases in adults and the elderly	<ol style="list-style-type: none"> <li>1. Describe metabolic syndrome and its effects</li> <li>2. Analyzing the causes of obesity in adults</li> <li>3. Describes hyperlipidemia and atherosclerosis</li> <li>4. Examining nutritional interventions for diabetes mellitus</li> </ol>	<p><b>Criteria:</b> Understanding metabolic syndrome disease in adults and the elderly</p> <p><b>Form of Assessment :</b> Participatory Activities</p>		Group discussion, and question and answer 3 X 50	<p><b>Material:</b> Physiology of the elderly <b>Reference:</b> <i>Brown, Judith E. 2011. Nutrition Through Life Cycle. Wadsworth Cengage Learning, USA</i></p> <p><b>Material:</b> Balanced nutrition for the elderly <b>Reference:</b> <b>Minister of Health Regulation no. 41 of 2014 concerning Guidelines for Balanced Nutrition</b></p> <p><b>Material:</b> Degenerative diseases <b>References:</b> <i>Aiffah CAN, Ruhana A, Dini CY, Pratama SA. 2021. Nutrition in the Life Cycle, Textbook for UNESA Nutrition Undergraduate Study Program Students. Surabaya: UNESA University Press</i></p>	10%
16			<p><b>Form of Assessment :</b> Test</p>	MCQs	3 X 50 multiple choice test	<p><b>Material:</b> Final Semester Exam <b>Literature:</b></p>	20%

#### Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	51%
2.	Portfolio Assessment	1.5%
3.	Practice / Performance	10%
4.	Test	37.5%
		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.