

 <b>UNESA</b>	<b>Universitas Negeri Surabaya</b> <b>Faculty of Engineering</b> <b>, Undergraduate Culinary Education Study Program</b>					<b>Document Code</b>																																																	
<b>SEMESTER LEARNING PLAN</b>																																																							
Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date																																																
Food Technology	8321102096	Compulsory Study Program	T=2	P=0	ECTS=3.18	4	July 17, 2024																																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator		Study Program Coordinator																																																		
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Learning model	Project Based Learning																																																						
Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																																						
	PLO-9	Able to design, carry out, analyze and implement research results in the field of Culinary Education																																																					
	PLO-11	Able to understand scientific concepts in the field of culinary arts																																																					
	Program Objectives (PO)																																																						
	PO - 1	Demonstrate a responsible attitude towards work in material handling, preservation and/or food processing																																																					
	PLO-PO Matrix																																																						
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">P.O</td> <td style="padding: 5px;">PLO-9</td> <td style="padding: 5px;">PLO-11</td> </tr> <tr> <td style="padding: 5px;">PO-1</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>						P.O	PLO-9	PLO-11	PO-1																																														
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PO-1																																																							
PO Matrix at the end of each learning stage (Sub-PO)																																																							
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th rowspan="2" style="padding: 5px;">P.O</th> <th colspan="16" style="padding: 5px;">Week</th> </tr> <tr> <th style="padding: 5px;">1</th> <th style="padding: 5px;">2</th> <th style="padding: 5px;">3</th> <th style="padding: 5px;">4</th> <th style="padding: 5px;">5</th> <th style="padding: 5px;">6</th> <th style="padding: 5px;">7</th> <th style="padding: 5px;">8</th> <th style="padding: 5px;">9</th> <th style="padding: 5px;">10</th> <th style="padding: 5px;">11</th> <th style="padding: 5px;">12</th> <th style="padding: 5px;">13</th> <th style="padding: 5px;">14</th> <th style="padding: 5px;">15</th> <th style="padding: 5px;">16</th> </tr> <tr> <td style="padding: 5px;">PO-1</td> <td style="padding: 5px; text-align: center;">✓</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>						P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	PO-1	✓															
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PO-1	✓																																																						
Short Course Description	Mastery of basic concepts and application of various techniques for handling, processing, preserving and storing foodstuffs including: food damage and appropriate control methods, temperature regulation, preservation with salt, sugar and acid, drying, smoking, irradiation, food additives, food packaging & edibles coating, as well as sensory/organoleptic methods.																																																						
References	Main :																																																						
	<ol style="list-style-type: none"> <li>1. Desrosier, W. 1988. Teknologi Pengawetan Pangan. UI Press Jakarta.</li> <li>2. Mountney, GJ and W. A. Gould. 1988. Practical Food Microbiology and Technology Third Edition. Van Nostrand Reinhold Company New York.</li> <li>3. Purnomo, H. 1995. Ilmu Pangan (Terjemahan). UI Press Jakarta.</li> <li>4. Purnomo, H. 1996. Dasar-dasar Pengolahan dan Pengawetan Daging. Gramedia Widiasarana Indonesia Jakarta.</li> <li>5. Winarno, F. G. 1987. Enzim Pangan. Gramedia Jakarta.</li> <li>6. Winarno, F. G. 1987. Pengantar Teknologi Pangan. Gramedia Jakarta.</li> <li>7. Winarno, F. G. 1997. Kimia Pangan dan Gizi. Gramedia Jakarta.</li> <li>8. Cahyadi, W. 2006. Analisis dan aspek Kesehatan Bahan Tambahan Pangan. PT Bumi Aksara Jakarta.</li> </ol>																																																						
	Supporters:																																																						

Supporting lecturer		Dr. Ir. Asrul Bahar, M.Pd. Lilis Sulandari, S.Pt., M.P. Ratna Palupi Nurfatimah, S.TP., M.T.P. Rendra Lebdoyono, S.T.P., 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			<b>Form of Assessment :</b> Participatory Activities		Introductory Food Technology Knowledge 100		0%
2							0%
3							0%
4							0%
5							0%
6							0%
7							0%
8							0%
9		1.Accuracy in explaining the terms irradiation, irradiation units and irradiation sources 2.Accuracy explains the advantages and disadvantages of irradiation techniques 3.Accuracy explains the principle of preservation by irradiation	<b>Criteria:</b> Task: Give 3 examples of food products with irradiation logo labels  <b>Form of Assessment :</b> Participatory Activities		Classical Discussion Lecture Assignment: Give 3 examples of food products with a 2 X 50 irradiation logo label	<b>Material:</b> Food preservation techniques <b>Reference:</b> <i>Desrosier, W. 1988. Food Preservation Technology. UI Press Jakarta.</i>	5%
10							0%
11							0%
12							0%
13							0%
14							0%
15							0%
16							0%

**Evaluation Percentage Recap: Project Based Learning**

No	Evaluation	Percentage
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1.	Participatory Activities	5%
		5%

#### 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.