

SEMESTER LESSON PLAN (RPS)

(FUNCTIONAL FOOD)




Lecturer:

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**CULINARY EDUCATION STUDY PROGRAM
DEPARTMENT OF FAMILY WELFARE EDUCATION
FACULTY OF TECHNOLOGY AND VOCATIONAL EDUCATION
UNIVERSITAS PENDIDIKAN INDONESIA**

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Lecturer	TPK Prodi	Chairman of PKK Dept.
SEMESTER LESSON PLAN (RPS)		
<p>1. Course Identity</p> <p>Name of Study Program : Culinary Education Name of Course : Functional Food Code of Course : BG 441 Group of Course : Study Program Expertise Course (MKKIPS) SKS weight : 3 SKS Level : S-1 Semester : Odd Prerequisite : Basic Culinary, Food Science, Therapeutic Diet, Nutrition and Diet Status (mandatory/ optional) : Optional - Specialized Diet Package Lecturer name and code : Dr. Ai Nurhayati, M. Si / 1774</p>		

2. **Course Description**

In this lecture, the topics discussed are the basic concepts of functional food, the history of functional food, the function of functional food, functional food requirements, classification of functional food, bioactive content of functional food, the relationship between functional food and health, functional foods from plant to animal and functional foods from animals, *functional food guide pyramid*, functional food innovation, traditional food concepts and cultural acculturation in functional food development, traditional food concepts and cultural acculturation in functional food development. Implementation of lectures using a classical, individual, and group approach with the lecture method, question and answer, discussion, assignment and practices furnished with the use of audio-visual media such as OHP and LCD. The stage of student mastery in addition to evaluation through UTS and UAS is also an evaluation of assignments, discussions and practicums.

3. **Outcomes of the Referenced Study Program Learning (RSPL)**

S Demonstrate scientific, educative, and religious attitudes and behaviors contributing to improving the quality of life in society, nation, and state, based on academic norms and ethics

P3 Proficient in theoretical concepts in the Culinary education

KU Can apply logical, critical, systematic, and innovative thinking in the context of science and technology development or implementation that pays attention to and applies humanities values corresponding their area of expertise.

KK3 Can apply various food processing in accordance with food processing principles

KK4 Can create innovation and creativity of culinary products.

4. **Course Learning Outcomes (CLO)**

M1 Can determine the classification of functional food

M2 Can analyze the relationship between functional food and health

M3 Can design functional food

M4 Can modify ingredients into functional food

M5 Can produce functional food

5. Description of Learning Plan

Meeting	Indicator of Course Learning Outcomes	Study Modules	Learning Format	Time	Assignment and Evaluation	References
1	<p>Sub-CLO: Students can understand the basic concepts of Functional Food</p> <p>Indicators:</p> <ol style="list-style-type: none"> Students can explain the definition of functional food Students can present functional food according to the American Dietetic Association (ADA) Students can classify functional food categories based on ADA 	<p>Basic Concepts of Functional Food</p> <ol style="list-style-type: none"> Definition of functional food Functional foods according to the American Dietetic Association (ADA) Functional food categories based on ADA 	Listening to lectures from lecturers, asking questions, doing assignments, and discussing	100'	Oral quiz at the end of class	Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i> . India: Woodhead Publishing Series in Food Science, Technology and Nutrition.
2	<p>Sub-CLO: Students can describe the history and function of functional food</p> <p>Indicators:</p>	<p>History and Functions of Functional Foods:</p> <ol style="list-style-type: none"> History of functional foods Function of functional food 	Listening to lectures from lecturers, asking questions, doing assignments, and discussing	100'	Oral quiz at the end of class	Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i> . India: Woodhead Publishing Series in Food Science, Technology and Nutrition.

	<ol style="list-style-type: none"> 1. Students can present the history of functional foods 2. Students can describe the function of functional food 3. Students can describe functional food requirements 	<ol style="list-style-type: none"> 3. Functional food requirements 				
3-6	<p>Sub-CLO: Can classify functional food classification</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Students can present plant-based functional foods 2. Students can describe plant-based functional foods 	<p>The basic concept of functional food classification</p> <ol style="list-style-type: none"> 1. Plant-based functional foods 2. Plant-based functional foods 	<p>Listening to lectures from lecturers, asking questions, doing assignments, and discussing</p>	4x100'	<p>Oral quiz at the end of class</p>	<p>Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i>. India: Woodhead Publishing Series in Food Science, Technology and Nutrition.</p>
7-9	<p>Sub-CLO: Can express the bioactive content of functional foods</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Students can explain the content of Bioactive Functional Foods 	<ol style="list-style-type: none"> 1. Functional Food Bioactive Content 2. Free radicals and degenerative diseases 3. Health problems caused by free radicals 	<p>Listening to lectures from lecturers, asking questions, doing assignments, and discussing</p>	4x100'	<p>Oral quiz at the end of class</p>	<p>Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i>. India: Woodhead Publishing Series in Food Science, Technology and Nutrition.</p>

	<p>2. Students can explore knowledge about free radicals and degenerative diseases</p> <p>3. Students can summarize information about health problems caused by free radicals</p>					
10	MID-TERM EXAM					
11	<p>Sub-CLO: Can express the relationship between functional food and health</p> <p>Indicators:</p> <p>1. Students can express relationships</p>	<p>The Concept of the Relationship of Functional Foods with Health</p> <p>1. Definition of degenerative disease</p>	<p>Listening to lectures from lecturers, asking questions, doing assignments, and discussing</p>	100'	<p>Oral quiz at the end of class</p>	<p>Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i>. India: Woodhead Publishing Series in Food Science, Technology and Nutrition.</p>
12	<p>Sub-CLO: Functional Food Innovation</p> <p>Indicators:</p> <p>1. Students can explain the principle of functional food innovation; Eliminate, increase, add, and replace</p>	<p>Functional Food Innovation</p> <p>1. Principles of functional food innovation; Eliminate, increase, add, and replace</p> <p>2. Functional Food Guide Pyramid</p>	<p>Listening to lectures from lecturers, asking questions, doing assignments, and discussing</p>	100'	<p>The assignment of making a functional food innovation paper</p>	<p>Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i>. India: Woodhead Publishing Series in Food Science, Technology and Nutrition.</p>

	<p>2. Students can interpret the Functional Food Guide Pyramid</p> <p>3. Students can distinguish between Soluble and insoluble fiber</p> <p>4. Students can modify traditional food-based functional food innovations</p>	<p>3. Soluble and insoluble fiber</p> <p>4. Traditional food-based functional food innovation</p>				
13	<p>Sub-CLO: Can make functional food breakfast</p> <p>Indicators:</p> <p>1. Students can design practical plans</p> <p>2. Students make functional food breakfast</p> <p>3. Students can display practical results</p>	<p>Practice making functional food breakfast</p> <p>1. Practical planning design</p> <p>2. Making functional food breakfast</p> <p>3. Presentation of practical results</p>	Practical work on making functional food	1x200	Practical planning and evaluation of results	<p>Saarela, Maria. 2011. <i>Functional Foods Concept to Product – Second Edition</i>. India: Woodhead Publishing Series in Food Science, Technology and Nutrition.</p> <p>Almatsier S, Soetardjo, Soekari. <i>Balanced Nutrition in the Life Cycle</i>. PT Gramedia Pustaka Utama. 2011</p>
14	<p>Sub-CLO: Can make lunch/dinner functional food</p>	Practice of making lunch/dinner functional food	Practical work on making functional food	1x200'	Practical Planning and	Almatsier S, Soetardjo, Soekari. <i>Balanced Nutrition in the Life</i>

	<p>Indicators:</p> <ol style="list-style-type: none"> Students can design functional food lunch/dinner practicum plans Students can make functional food lunch/dinner Students can show the results of practical lunch/dinner functional foods 	<ol style="list-style-type: none"> Functional food lunch/dinner practicum plan <p>Make lunch/dinner functional food</p> <ol style="list-style-type: none"> Presentation of functional food lunch/dinner practicum results Practical work on making functional food 			evaluation of results	Cycle. PT Gramedia Pustaka Utama. 2011.
15	<p>Sub-CLO: Can make functional food snacks and drinks</p> <p>Indicators:</p> <ol style="list-style-type: none"> Students can design functional food snack and beverage practicum plans Students can make functional food snacks and drinks Students can display practical results 	<p>Practice of making functional food snacks and drinks</p> <ol style="list-style-type: none"> Functional food snack and drink practicum design Make functional food snacks and drinks Presentation of practical results 	Practical work on making functional food	1x200'	Practical Planning and evaluation of results	Almatsier S, Soetardjo, Soekari. Balanced Nutrition in the Life Cycle. PT Gramedia Pustaka Utama. 2011 -
16	SEMESTER FINAL EXAM					

6. References

- a. Jenice Thompson. 2014. The Science of Nutrition. Pearson Publisher.
- b. Indra Ruswadi. 2021. Ilmu Gizi dan Diet untuk Mahasiswa. CV Adanu Abitama, Indramayu.
- c. Almatsier S, Soetardjo, Soekari. Balanced Nutrition in the Life Cycle. PT Gramedia Pustaka Utama. 2011
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- e. Beck, Mary E. Nutrition and Dietetics, Relation to Diseases for nurses and doctors. Publisher : Collaboration between Andi Offset and Essentia Medica Foundation (YEM). Yogyakarta. 2011.
- f. Cornelia, et al. Nutrition Counseling. 1st printing Jakarta. Publisher : Penebar Plus. 2013.
- g. Food and Agriculture Organization of the United Nations. 2018. Family Nutrition Guide.
- h. Saarela, Maria. 2011. Functional Foods Concept to Product – Second Edition. India: Woodhead Publishing Series in Food Science, Technology and Nutrition.
- i. Pipit Festy W. 2018. Buku Ajar Gizi dan Diet. UM Surabaya Publishing.