



Bogor Indonesia

Inspiring Innovation with Integrity in Agriculture, Ocean and Biosciences for a sustainable World

Food Technology Study Program



Department of Food Science and Technology – Faculty of Agricultural Technology – IPB University





Internationally Recognized UndergraduateProgram by IFT & IUFoST

Courses TPN1341

Functional Food Compiler Course Material : Nurheni Sri Palupi

Food Technology Study Program Department of Food Science and Technology, IPB University



1. Identity of the Course & the Teaching Team

2. Lecture Schedule and Topics

3. Assessment Components

4. Task Explanation



Identitas Mata Kuliah dan Tim Pengajar

Program Studi	:	Teknologi Pangan (S1)	Koordinator	:	Nurheni Sri Palupi, Dr. Ir. M.Si (NSP)
Nama Mata	:	Pangan Fungsional	Dosen	:	Kelas Paralel 1 (K1)
Kuliah					1. Dr. Ir. Nurheni Sri Palupi, M.Si (NSP) ~ sesi UTS
Kode Mata Kuliah	:	ITP441			2. Dr. Ir. Endang Prangdimurti, M.Si (EPR) ~ sesi UAS
Kredit	:	3(3-0)			Kelas Paralel 2 (K2)
Semester	:	Genap (Wajib)			1. Prof. Dr. Ir. Made Astawan, MS (MAS) ~ sesi UTS
Tahun Ajaran	:	2021/2022			2. Dr. Ir. Nurheni Sri Palupi, M.Si (NSP) ~ sesi UAS
Hari/Waktu/Kelas	:	K1: Senin/07.00-09.30		Kelas Paralel 3 (K3)	
		K2: Selasa/07.00-09.30			1. Prof. Dr. Ir. Made Astawan, MS (MAS) ~ sesi UTS
		K3: Kamis/10.00-12.30			2. Dr. Puspo Edi Giriwono, STP, M.Agr (PEG) ~ sesi UAS
		K4: Rabu/10.00-12.30		Kelas Paralel 4 (K4)	
	-				1. Prof. Dr. Ir. Sedarnawati Yasni, M.Agr (SYA) ~ SYA
					2. Dr. Puspo Edi Giriwono, STP, M.Agr (PEG) ~ PEG





JADWAL KULIAH PANGAN FUGSIONAL, ITP 441 3(3-0)

No	Week*	ΤΟΡΙϹ	K-1 Ind	K-2 Ind	K-3 Ingg	K-4 Int
\rightarrow	W-1	Definition and prospects for the development of functional food	NSP	MAS	MAS	SYA
2	W-2	The role of physiologically functional food in the prevention of degenerative diseases	NSP	MAS	MAS	SYA
3	W-3	The role of indigestible carbohydrates (dietary fiber, resistant starch, oligosaccharides (NDOS) in the development of functional food: antidiabetics	NSP	MAS	MAS	SYA
4	W-4	Role of amino acids, peptides, and proteins in the development of functional foods: anti-hypertensive	NSP	MAS	MAS	SYA
5	W-5	Role of fats and oils in the development of functional foods: hypocholesterolemics	NSP	MAS	MAS	SYA
6	W-6	The role of food vitamins in the development of functional food: immunity	NSP	MAS	MAS	SYA
7	W-7	Role of minerals in the development of functional food: osteoporosis	NSP	MAS	MAS	SYA
		Midterm test (Topic 1-7)				



JADWAL KULIAH PANGAN FUGSIONAL, ITP 441 3(3-0)

No	Week*	ΤΟΡΙϹ	K-1 Ind	K-2 Ind	K-3 Ingg	K-4 Int
8	W-9	The role of non-nutritional antioxidants (polyphenols, isoprenoids, flavonoids, isoflavones, lycopene, etc.) in the development of functional foods	EPR	NSP	PEG	PEG
9	W-10	The role of cereal-based local resources, design and local repurpose in the development of functional food	EPR	NSP	PEG	PEG
10	W-11	The role of local resources based on souvenirs, vegetables and spices in the development of functional food	EPR	NSP	PEG	PEG
11	W-12	Concept development to become a functional food product	EPR	NSP	PEG	PEG
12	W-13	Application of health claims on functional food product labels	EPR	NSP	PEG	PEG
13	W-14	Assignment Presentation	EPR	NSP	PEG	PEG
14	W-15	Assignment Presentation	EPR	NSP	PEG	PEG
		Final Test (Topic 8-12)				



Lecture Rules

- 1. Tolerance of delay in lecture activities is 15 minutes for reasons that can be accounted for.
- 2. Every student who attends is required to fill out a list of attendance through IPB Student at every online lecture activity (not at the following lectures), after the lecture minutes opens (BAP) online.
- 3. At the end of the lecture make a document in the form of screen shoot online lecture activities (students must open the video screen, if there are constraints must report to the Lecturer).
- 4. Lecturers do not tolerate cheating in exams, and plagiarism in the completion of assignments / reports / paper writing or other forms of assessment. If a student is found to have cheated in an exam or an act of plagiarism, then the student will get a zero for that score.
- 5. Both parties agreed to comply with the rules/regulations for the implementation of lectures in accordance with the standard procedures applicable in the IPB.



Penilaian Capaian Pembelajaran

Bagian	Criteria	Pelaksana	Score	Weight (%)				
А	Written Exam							
	 Midterm Exam (Topic 1 – 7) 	Individual	0 - 100	40	Scoring (NA) Final grad			
	 Final Exam (Topic 8 − 12) 	Individual	0 - 100	35	NA≥80	=	A	
В	Assignment				80 > NA 2 75	=	AB	
	Written Design		60 -	-	/5 > NA ≥ /0	=	В	
	(Outline)		100	5	70 > NA ≥ 65	=	BC	
	Paper	Group	60 —	10	65 > NA ≥ 55	=	С	
			100	10	55 > NA ≥ 45	=	D	
	 Presentation Skills 	Group	60 – 100	10	NA ≤ 45	=	E	
Total score			100					



Terms of Duty

Group	:	Consist of 3-4 persons	
Form of Assigment	:	Papers on the development of indigenous resource- based functional food (conventional products or new products)	
Торіс	:	Determined from the choice of topics available by commodity (each group is different)	Topic Selection
Writing Focus & Discussion	:	Bioactive components, their properties and mechanisms and applications in the development of functional food	1.FISH 2.MILK
Stages	:	 a. Topic and title determination b. Outline preparation ~ at week 7 c. Preparation of writing paper d. Collection of papers and minutes meeting, and presentation materials (PowerPoint format) ~ in week 12 	3.MEAT 4.EGG 5.FRUITS 6.VEGETABLES 7.Nuts 8 Cereal
Teknik Penulisan	:	Referring to Guidelines for Writing Scientific Papers (PPKI) IPB Edition 4	9.TUBERS
Nilai Tugas	:	See the assessment component	TO.SPICES



Format of Writing Papers

Cover

- Title, group member name, NIM, IPB logo, institution name
- Table of Contents
- Introduction
 - Background
 - Purpose
- Discussions based on Literature Review
 - Availability of raw materials
 - Bioactive components, properties and mechanisms
 - Application in the development of functional food products
 - Illustration of product development, labeling design and functional food claims
- Closing (Conclusions and Suggestions)
- Bibliography
- Appendix (2 main articles examined)



Penilaian Tugas

Assessment Criteria	Bobot (%)	Score (60-100)	Total
A. Writing Techniques (Papers)	100		
 Logic of thinking (background description of the problem, subject matter, conclusions and suggestions are interconnected) 	30		
2. Scope of discussion (covering all elements needed in the development of functional food products)	30		
 Grammar (sentence structure, writing techniques including many typos) 	20		
4. Citation techniques (use of new references &how to write libraries) and writing formats	20		

Assessment Criteria	Bobot (%)	Score (60-100)	Total
B. Techniques de présentation (présentation orale)	100		
1. Presentation materials (material clarity & PPt quality)	30		
2. Way of presentation (chronological flow of information)	30		
 Answering techniques (ability to answer during discussions) 	20		
4. Over-all attitude (cooperation & role of group members)	20		



Rubrik Penilaian Penulisan Karya Tulis

CRITERIA	VERY GOOD	VERY BAD	WEIGHT (A)
Logic of thinking (background description of the problem, conclusions and suggestions related to the subject matter)	The background containing the description of the problem, its objectives, subject matter, conclusions and suggestions is very clearly interconnected.	The background containing the description of the problem, its objectives, subject matter, conclusions and suggestions is not clear about the relationship.	30%
The discussion includes the elements needed in the development of functional food products	Includes four elements: 1) Availability of raw materials; 2) Bioactive components, their properties and mechanisms; 3) Application in the development of functional food products; and 4) Illustration of product development and design of labeling and functional food claims	The discussion does not include all (four) elements needed in writing a written work.	30%
Grammar (sentence structure, writing techniques including many typos)	The writing uses language that is easy to understand, systematic, has no typo, follows the rules of scientific writing, and is free of plagiarism	Grammar is complex and difficult to understand, unsystematic, many typos, does not follow the rules of correct scientific writing, and there is an element of plagiarism.	20%
Citation techniques (use of new references &how to write Libraries) and writing formats	 The writing is supported by a minimum of 5 recent scientific journals (the last 15 years) and the references used are listed in the bibliography. Writing follows the format of writing 	 Not supported by library sources from scientific journals. The writing does not follow the format of the writing. 	20%



Rubrik Penilaian Teknik Presentasi

Assessment Aspects	Expected (Maximum Value 100)	Weight (B)
Clarity of the material presented	The content of the presentation material is systematic, the information is true / accountable, and clear and relevant to the paper and Applies the principles of VISUALS (visible, interesting, structured, useful, accurate, legitimate, simple), and free of plagiarism	40%
Ability to deliver material orally	The presentation material is delivered systematically, straightforwardly, intonation is clear, full of confidence, and interesting for the audience to listen to; the conclusion answers all the goals formulated; timeliness of presentationThe presentation material is delivered systematically, straightforwardly, intonation is clear, full of confidence, and interesting for the audience to listen to; the conclusion answers all the goals formulated; timeliness of presentation	30%
Ability to answer / respond to questions	All questions are listened to and responded to based on valid information / based on references	15%
Role of group members	All group members play a role during presentation and discussion sessions	15%

The terms of the presentation activity will be explained in half-life of the UAS



THANK YOU