



Course Syllabus (Academic Year 2021)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

1. Course No. and Title :KAFT 101 Introduction to Food Science and Technology
Credit (study hours) : 2 (2-0-4)
2. Program Name : Bachelor of Science in Food Technology
3. Course Module : Generic
Pre/co-requisite : None
4. Class Semester : 1st Semester 2nd Semester Academic Year 2021
5. Class Schedule & Venue : Tuesday 8.20-10.20 (online)
6. Class Coordinator : Natteewan Udomsil, Ph.D.

Contact No. 081-724-9641 E-mail: paeng888@hotmail.com

7. Course description

Overview of food and agro-industries in Thailand and the world; roles of Food Technologists in food industries; introduction to the changes in food properties before, during and after being processed; some important food processing techniques; special topics on current global issues in food science and technology

8. Course objectives/ Course Learning Outcomes (CLOs)

No.	Objectives/ CLOs	Expected skills/ Knowledge			
		Specific	Generic	Knowledge	PLOs
8.1	Explain basic knowledge of food science and technology	S1	G2	K1, K2, K3, K8	1
8.2	Explain the process of applying various principles and knowledge, such as food safety, food chemistry,	S5	G4, G12	K2, K5, K8, K28	2

	nutrition, food deterioration, and sensory evaluation, to appropriate food preservation and processing techniques				
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9. Class instructor list

9.1 Amnat Jarerat (AJ)	(AJ)	E-mail: amnat.jar@mahidol.edu
9.2 Assoc. Prof. Rungtiwa Wongsagonsep	(RW)	E-mail: kookple@hotmail.com
9.3 Asst. Prof. Dr. Jarupat Luecha	(JL)	E-mail: jarupat.lue@mahidol.edu
9.4 Renoo Yenket	(RYK)	E-mail: ryenket@gmail.com
9.5 Natteewan Udomsil	(NU)	E-mail: paeng888@hotmail.com
9.6 Chutikarn Kapcum	(CK)	E-mail: kapcum.chu@gmail.com
9.7 Ronnachai Yoddumnern	(RY)	E-mail: ronnachai_y@hotmail.com
9.8 Patnarin Benyathiar	(PB)	Email: ohnarin@gmail.com

10. Course Outline

Week	Date	Contents	CLOs	Teaching & Learning	Instructor
1	4 Jan 2022	Course introduction and general food components and nutrition: minerals, vitamins, water	8.1, 8.2	Lecture & discussion	NU
2	11 Jan 2022	General food components and nutrition: protein, carbohydrate, fat, emulsion	8.1, 8.2		CK
3	18 Jan 2022	Microorganisms in foods: Spoilage and pathogen bacteria	8.1, 8.2		NU
4	25 Jan 2022	Fermented food	8.1, 8.2		RY
5	1 Feb 2022	Egg and egg products	8.1, 8.2		JL
6	8 Feb 2022	Milk and Milk products	8.1, 8.2		RYK
7	15 Feb 2022	Meat and fishery products	8.1, 8.2		CK
8	22 Feb 2022	Carbohydrate and starch	8.1, 8.2		RW
9	Midterm examination (28 Feb-4 Mar 2022)				
10	8 Mar 2022	Antioxidant in foods	8.1, 8.2		CK
11	15 Mar 2022	Food packaging	8.1, 8.2		PB
12	22 Mar 2022	Food law and standard	8.1, 8.2		RY
13	29 Mar 2022	Food hygiene and sanitation	8.1, 8.2		RYK
14	5 Apr 2022	Evaluation of food quality	8.1, 8.2		RYK
15	12 Apr 2022	Shelf-life estimation of food products	8.1, 8.2		AJ
16	19 Apr 2022	Nanotechnology	8.1, 8.2		JL
17-18	Final examination (2-13 May 2022)				

11. Course Assessment

	Methods/Activities	Regulations	CLOs	Week	Weight Distribution (%)
11.1	Midterm examination	Assessed using rubric	8.1, 8.2	9	45
11.2	Final examination	Assessed using rubric	8.1, 8.2	17-18	45
11.3	Class participation	Instructor's observation		1-16	10
				Total	100

12. Grading system

Grade	Score
O	≥ 80
S	50 - 79
U	0 - 49

O = Outstanding S = Satisfied U = Unsatisfied

13. References

วิทยาศาสตร์และเทคโนโลยีการอาหาร : Food Science and Technology, 2546 พิมพ์ครั้งที่ 4 สำนักพิมพ์

มหาวิทยาลัยเกษตรศาสตร์, กรุงเทพมหานคร

Bennion, M. The Science of Food, 1980, John Wiley & Sons.

Potter, N. N. and Hotchkiss, J. H. Food Science, 5th Edition, 1995, Chapman & Hall.

Valcavik, V. A. Essentials of Food Science, 1988, Aspen Publishers Inc.