



Course Syllabus (Academic Year 2020)

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 2020
- 5. Class Schedule & Venue** : Tuesday 8.30-10.30
- 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, nutrition, food deterioration, and sensory evaluation, to	S5	G4, G12	K2, K5, K8, K28	2

	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 Wongsagonsup (RW)	(RW)	E-mail: kookple@hotmail.com
9.3 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 Benjathiar	(PB)	Email: ohnarin@gmail.com

10. Course Outline

Week	Date	Contents	CLOs	Teaching & Learning	Instructor
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1	19 Jan 2021	Course introduction and general food components and nutrition: minerals, vitamins, water	8.1, 8.2	Lecture & discussion	NU
2	26 Jan 2021	Microorganisms in foods: Spoilage and pathogen bacteria	8.1, 8.2		NU
3	2 Feb 2021	General food components and nutrition: protein, carbohydrate, fat, emulsion	8.1, 8.2		CK
4	9 Feb 2021	Antioxidant in foods	8.1, 8.2		CK
5	16 Feb 2021	Egg and egg products	8.1, 8.2		JL
6	23 Feb 2021	Food hygiene and sanitation	8.1, 8.2		RYK
7	2 Mar 2021	Evaluation of food quality	8.1, 8.2		RYK
8	9 Mar 2021	Milk and Milk products	8.1, 8.2		RYK
9	Midterm examination (15-19 Mar 2021)				
10	23 Mar 2021	Fermented food	8.1, 8.2		RY
11	30 Mar 2021	Food law and standard	8.1, 8.2		RY
12**	6 Apr 2021	Carbohydrate and Starch	8.1, 8.2		RW
13**	13 Apr 2021	Food packaging	8.1, 8.2		PB
14	20 Apr 2021	Shelf-life estimation of food products	8.1, 8.2		AJ
15	27 Apr 2021	Meat and fishery products	8.1, 8.2		CK
16	4 May 2021	Nanotechnology	8.1, 8.2		JL
17-18	Final Examination (13-25 May 2021)				

Note: **Week 12 and 13 will be changed by instructor

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.