



Course Syllabus (Academic Year 2021)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

1. **Course No. and Title** : KAFT 356 Food and Nutrition
Credit (study hours) : 3(3-0-6)
2. **Program Name** : Bachelor of Science in Food Technology
3. **Course Module** : Specific Core Course, Required Subject
Pre/co-requisite : KAID 200
4. **Class Semester** : 1st Semester Academic Year 2021
5. **Class Schedule & Venue** : Lecture every Wednesday at 09:00 – 12:00,
Room : Online Webex / Hybrid teaching
6. **Class Coordinator** : Dr. Natteewan Udomsil (081-7249641)
Room: Online Webex Email : paeng888@hotmail.com

7. Course Description

Nutritional value; human digestion; nutritional requirement in different stages of life; diet therapy in patient and malnutrition person; the current issues of food for health; healthy foods; critical thinking and teamwork

8. Course Objectives / Course Learning Outcomes (CLOs)

| No. | Objectives / CLOs | Expected Skills / Knowledge | | | PLOs |
|-----|---|-----------------------------|---------|-----------|------|
| | | Specific | Generic | Knowledge | |
| 8.1 | Explain roles and functions of nutrients on human body | - | G2 | K4, K28 | 1 |
| 8.2 | Explain overall process of digestion and absorption system as well as the roles played by the liver, gallbladder, and pancreas | - | G2 | K28 | 1 |
| 8.3 | Explain nutritional requirement of each stage of life and understand the disease problems that occur from food consuming behavior | S8 | G2 | K4, K28 | 1 |

| | | | | | |
|-----|---|---|----------|---------|---|
| 8.4 | Demonstrate the use of communication skill and show cooperative teams | - | G10, G14 | K4, K28 | 5 |
|-----|---|---|----------|---------|---|

Note: S8, skill in judging food quality based on provided data; G2, information acquisition; G10, Communication skill; G14, presentation skill; K4, food biochemistry; K28, human nutrition

**** PLO1:** Apply knowledge and skill of food technology and related fields to work in a role of food technologists in food industries for producing safe foods that also meet standards.

PLO2: Analyze basic food qualities using appropriate laboratory techniques following good practice with moral and utilization of laboratory resources effectively.

PLO3: Conduct research in food technology for problem solving or product developing following the change in terms of economy, society and environment—at the local level, national level or global level—using appropriate scientific research methodology, working with good ethics, and expressing the desire to develop better research.

PLO4: Able to communicate both verbally and literally in Thai and English to different levels of audience as a role of food technology effectively using appropriate methods.

PLO5: Demonstrate to work as in a team both as a leader and a member of the group effectively for promoting good co-operation.

9. Class Instructor List

9.1 Name : Dr. Natteewan Udomsil (NU)

Email : paeng888@hotmail.com

9.2 Name : Aj. Paponpat Artitdit (PA)

Email : aodpaponpat@hotmail.com

10. Course Outline

| Week | Date | Contents | CLOs | Teaching & Learning | Instructor's Names |
|------|---|---|---------|------------------------|--------------------|
| 1 | 11/08/21 | Introduction of the course and behavior of consumer | 8.1-8.3 | Lecture and discussion | NU |
| 2 | 18/08/21 | Food and nutritional value | 8.1 | | NU |
| 3 | 25/08/21 | Nutritional assessment and healthy food | 8.1 | | NU |
| 4 | 1/09/21 | Gastrointestinal system | 8.2 | | NU |
| 5 | 8/09/21 | Carbohydrate | 8.1 | | NU |
| 6 | 15/09/21 | Protein | 8.1 | | NU |
| 7 | 22/09/21 | Lipid | 8.1 | | NU |
| 8 | 29/09/21 | Vitamin and mineral | 8.1 | | NU |
| 9 | Mid-term Examination (4 th – 8 th October 2021) | | | | |

| | | | | | |
|----|--|--|-----|------------------------------|----|
| 10 | 13/10/21* | Nutrition in pregnancy and breastfeeding | 8.3 | Lecture and discussion | PA |
| 11 | 20/10/21 | Nutrition in infancy and preschool children | 8.3 | | PA |
| 12 | 27/10/21 | Nutrition in school-age and teenager | 8.3 | | PA |
| 13 | 3/11/21 | Nutrition in adult and elder | 8.3 | | PA |
| 14 | 10/11/21 | Diet therapy in diabetes, hypertension, heart and kidney disease | 8.3 | | PA |
| 15 | 17/11/21 | Group report assignment | 8.4 | | NU |
| 16 | Final Examination (29 th November – 10 th December 2021) | | | | |

*Class may be changed and announced later

11. Course Assessment

| No. | Methods / Activities | Regulations | CLOs | Week | Weight Distribution (%) |
|------|--|---|----------|---------------|-------------------------|
| 11.1 | Midterm examination | - Closed book/open book - Calculator is not allowed | 8.1, 8.2 | 1-8 | 45 |
| 11.2 | Final examination | - Closed book/open book - Calculator is not allowed | 8.3 | 10-14 | 35 |
| 11.4 | Group assignment | Report and/or presentation | 8.4 | 15 | 10 |
| 11.5 | Class participation and accountability | Instructor evaluation of class participation and accountability | | 1-8, 10-14 | 10 |
| | | | | Total | 100 |

12. Grading System

Criterion-referenced evaluation

| Grade | Score | Grade | Score | Grade | Score | Grade | Score |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| A | ≥ 80 % | B | 70 – 74.99% | C | 60 – 64.99% | D | 50 – 54.99% |
| B+ | 75 – 79.99% | C+ | 65 – 69.99% | D+ | 55 – 59.99% | F | < 50 % |

Norm-referenced evaluation

*If use both criterion and norm-referenced evaluation, please tick two boxes.

13. References

13.1 Medeiros, D.M. and Wildman, R.E.C. Advanced human nutrition. 2000. CRC Press, New York.

13.2 Wardlaw, G.M., Smith, A.M., Lindeman, A. K. Contemporary Nutrition: A Functional Approach. 2012.
2nded. McGraw Hill, New York.

13.3 Whitney, E., and Rolfes, S.R. Understanding nutrition. 11th ed. Australia: Thomson.