Course Syllabus (Academic Year 2020)

School of Interdisciplinary Studies, Kanchanaburi Campus, Mahidol University

1. **Course No. and Title** : KAFT 354 Principle of Quality Control and Quality Assurance

   Credit (study hours) : 3 (3-0-6)

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** : Wednesday 9:00 – 12:00

6. **Class Coordinator** : Ronnachai Yoddumnern

   Contact No.: 081-8899867 Email: ronnachai_y@hotmail.com

7. **Course Description**

   Principle concepts and systematic methods of quality control and quality assurance of food industry,

   Quality control and quality assurance in food products, Quality standard and quality management,

   Quality control of raw material, processes and finished products

8. **Course Objectives / Course Learning Outcomes (CLOs)**

No.	Objectives / CLOs	Expected Skills / Knowledge			PLOs
		Specific	Generic	Knowledge	
8.1	Explain the importance of quality control and quality assurance system in the food industry	S2, S5, S8	G2, G10	K5, K7, K9, K10	1, 4
8.2	Explain the principle of various quality control and quality assurance system	S2, S3, S4, S8	G10, G15	K1, K3, K5, K7, K9, K10	1, 4
8.3	Apply the quality control and quality	S3, S4	G9, G10, G11, G15, G16	K7, K9, K10	3, 4, 5

		assurance system in the food industry				
8.4	Set up the quality team and work as a leader and a member of the team for the quality planning and application	S4, S8	G7, G9, G10, G15, G16	K5, K7, K9, K10	4, 5	

9. Class Instructor List

9.1 Ronnachai Yoddumnern   (RY)   Email : ronnachai_y@hotmail.com

10. Course Outline

Week	Date	Contents	CLOs	Teaching & Learning	Instructor
1	Jan 6	Course introduction Quality of food product Importance of quality control and quality assurance in food industry	8.1, 8.3, 8.4, 8.5	Lecture, discussion and assignment	RY
2	Jan 13	5s; principle and practice			RY
3	Jan 20	Lean; principle and tools			RY
4	Jan 27	Six sigma and PDCA			RY
5	Feb 3	Total Quality Management (TQM); principle and tools I			RY
6	Feb 10	Total Quality Management (TQM); principle and tools II			RY
7	Feb 17	Good Manufacturing Practice I; principle			RY
8	Feb 24	Good Manufacturing Practice II, application and validation			RY
9	(Mar 1-5) Mid-term Examination				
11	Mar 10	Hazard analysis and critical control points; principle	8.1, 8.3, 8.4, 8.5	Lecture, discussion and assignment	RY
12	Mar 17	Hazard analysis and critical control points; application			RY
13	Mar 24	ISO 9001			RY

14	Mar 31	ISO 22000			RY
15	Apr 7	Documentation and recording, management and control	8.1, 8.3, 8.4, 8.5	Lecture, discussion and assignment	RY
16	Apr 21	Trend in QA&QC in food industry			RY
17	Apr 28	Report and presentation		Assignment	RY
18	(May 3-14) Final Examination				

11. Course Assessment

No.	Methods / Activities	Regulations	CLOs	Week	Weight Distribution (%)
11.1	Midterm examination	Assessed using rubric	8.1, 8.2, 8.3	9	30
11.2	Final examination	Assessed using rubric	8.1, 8.2, 8.3	18	30
11.3	Term project		8.1, 8.2, 8.3	17	20
11.4	Assignments		8.1, 8.2, 8.3	1-16	10
11.5	Class participation	Instructors' observation	-		10
				Total	100

12. Grading System

☑ Criterion-referenced evaluation

Class' average score < 75.00 %		Class' average score ≥ 75.00%	
Grade	Score	Grade	Score
A	≥ 80.00 %	A	≥ 85.00 %
B+	75.00 – 79.99%	B+	80.00 – 84.99%
B	70.00 – 74.99%	B	75.00 – 79.99%
C+	65.00 – 69.99%	C+	70.00 – 74.99%
C	60.00 – 64.99%	C	65.00 – 69.99%
D+	55.00 – 59.99%	D+	60.00 – 64.99%
D	50.00 – 54.99%	D	55.00 – 59.99%
F	< 50.00 %	F	< 55.00 %

13. References

Vasconcellos, J. A. (2003). Quality assurance for the food industry: A practical approach. In *Quality Assurance for the Food Industry: A Practical Approach*.