

Course Syllabus FST 481: Food Safety and Quality Management

Semester 2/2019

Instructor:

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1. Faculty of Science, Department of Microbiology,

Program: Food Science and technology & Microbiology

2. Course code: FST481 (Food Safety and Quality Management) Credits: 3(3-0-6)

3. Pre-requisite course MIC 192 (General Microbiology Laboratory

4. Course description

This course will cover exercises relating to food microbiology which including; standard plate counts, microbial isolations from foods, microbial intervention, thermal microbiology, pathogen detection, etc.

5. Course objective.

-After course completion, students will have lab skills to conduct microbiological lab work.

6. Class schedule Tuesday 9:30-12.30 MIC 405

7. Teaching method: Teaching, discussion, student presentation

8. Course materials

- materials uploaded in LEB2 system

9. Textbooks and references

Resources

□ Hazard Analysis and Critical Control Point Principles and Application Guidelines, The National Advisory Committee on Microbiological Criteria for Food (NACMCF), *Journal of Food Protection*, Vol. 61, No 9, 1998.

[http://www.fsis.usda.gov/wps/wcm/connect/dccfe894-36bb-4bd9-b27a-](http://www.fsis.usda.gov/wps/wcm/connect/dccfe894-36bb-4bd9-b27a-a7f5275a22cd/JFP0998.pdf?MOD=AJPERES)

[a7f5275a22cd/JFP0998.pdf?MOD=AJPERES](http://www.fsis.usda.gov/wps/wcm/connect/dccfe894-36bb-4bd9-b27a-a7f5275a22cd/JFP0998.pdf?MOD=AJPERES)

□ Federal Register, Vol. 61, No. 144, July 25, 1996, Final Rule, Pathogen Reduction; Hazard Analysis and Critical Control Point (HACCP) Systems. 9 CFR Parts 304, 308, 310, 320, 327, 381, 416, and 417 [Docket No. 93-016F] <http://www.fsis.usda.gov/OPPDE/rdad/FRPubs/93-016F.pdf>

□ WHO HACCP, <http://www.fao.org/3/y1579e/y1579e03.htm>

10. Student assessment

Midterm exam 30%

Discussion/Presentation 30%

Final exam 40%

Week	Topic	Hours
1.	Food Safety and Quality Concepts/ International Law and Regulation	6
2.	Good Manufacturing Practices / ThaiFDA / WHO Codex GMP <ul style="list-style-type: none">- Primary production- Establishment- Control of operation- Establish maintenance and sanitation- Personal hygiene- Transportation of foodstuff- Product information and consumer awareness- Training	12
3.	Hazard Analysis and Critical Control Points: 5 steps <ul style="list-style-type: none">1. Assemble HACCP team2. Describe product3. Identify intended use4. Construct flow diagram5. On-site confirmation of flow diagram	3
4.	Hazard Analysis and Critical Control Points: 7 principles PRINCIPLES OF THE HACCP SYSTEM The HACCP system consists of the following seven principles: PRINCIPLE 1	18

Week	Topic	Hours
	<p>Conduct a hazard analysis.</p> <p>PRINCIPLE 2 Determine the Critical Control Points (CCPs).</p> <p>PRINCIPLE 3 Establish critical limit(s).</p> <p>PRINCIPLE 4 Establish a system to monitor control of the CCP.</p> <p>PRINCIPLE 5 Establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control.</p> <p>PRINCIPLE 6 Establish procedures for verification to confirm that the HACCP system is working effectively.</p> <p>PRINCIPLE 7 Establish documentation concerning all procedures and records appropriate to these principles and their application.</p>	
5.	Case studies GMP/HACCP	6
6.	Student Presentations	3