

## The Hong Kong Polytechnic University

### Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

<b>Subject Code</b>	ABCT4422
<b>Subject Title</b>	Food Sanitation and Safety Management
<b>Credit Value</b>	3
<b>Level</b>	4
<b>Pre-requisite</b>	Food Engineering & Processing I (ABCT3418)
<b>Objectives</b>	This subject aims to foster students' understanding and appreciation of food hygiene and safety management. Emphasis is put on food hygiene and safety practices required for licensed food premises in Hong Kong (such as cleaning, sanitation, and pest control operations) as well as an internationally recognized food safety management system based on ISO 22000, including hazard analysis and critical control points (HACCP) principles.
<b>Intended Learning Outcomes</b>  <i>(Note 1)</i>	Upon completion of the subject, students will be able to: a. identify potential hazards and food safety issues in specific foods; b. describe routes of physical, chemical, and biological contamination of foods and discuss methods for controlling the hazards; c. evaluate the conditions, including sanitation practices, under which relevant pathogenic microorganisms are commonly controlled in foods; d. design a food safety plan for the manufacture of a specific food; e. describe principles and practices of cleaning, sanitization and pest control in food processing facilities as well as define principles and methods of water and waste management; f. demonstrate critical thinking as well as problem solving skills.
<b>Subject Synopsis/ Indicative Syllabus</b>  <i>(Note 2)</i>	<u>Role of the food industry in food hygiene and safety management</u> legal responsibility – “Food Hygiene Code”; worker safety; the importance of consumer trust and product reputation  <u>Risk-based inspection system (risk classification of food)</u> (i) ready-to-eat-food; (ii) high risk food; (iii) high risk foods that are ready-to-eat; (iv) high risk foods that are not ready-to-eat; (v) medium risk food; (vi) medium risk foods that are ready-to-eat; (vii) medium risk foods that are not ready-to-eat; (viii) low risk food  <u>General Design and Construction of Food Premises</u> licensing of food premises; kitchens and food rooms; utilities; water and waste management

	<p><u>Cleaning and sanitization</u> cleaning chemicals and detergency; cleaning equipment; CIP, COP and other cleaning technologies; sanitizing methods and agents; sanitizing equipment; environmental sanitation and maintenance</p> <p><u>Pest control</u> characteristics of pest contamination sources and pest infestation; use of chemical and mechanical techniques and pesticides; integrated pest management</p> <p><u>Safe food handling, equipment and utensils, personal health, hygiene and training of food handlers</u> food receiving and storage; food handling, displaying, serving and disposal; equipment, utensils and linens; personal health and illnesses; personal hygiene and training of food handlers</p> <p><u>Hazard analysis and critical control point (HACCP) principles and practice</u> preparation of HACCP; designing safety into products and processes; developing HACCP plan; hazard analysis chart; developing HACCP control chart; implementation of HACCP</p> <p><u>ISO 22000 standard on food safety management system</u> integrated approach in food safety management system, including pre-requisite programme, HACCP principles, system management</p>																																														
<p><b>Teaching/Learning Methodology</b></p> <p>(Note 3)</p>	<p>Interactive lectures and guided readings are used to facilitate communication between lecturer and students, and also to enhance students in comprehending the taught topics. Tutorials are designed to assist students to re-think the previous learning process for consolidating the key concepts. A plant visit to a local food processing plant would be arranged in order to provide students with exposure on real-life food hygiene management. A problem-based learning in the form of a mini-project (e.g. to design a HACCP plan for a local food manufacturing plant) is used to develop students' abilities to integrate and apply the knowledge acquired as well as to foster their skills in problem solving and critical thinking. Students' learning outcomes are ascertained by a variety of assessment tools</p>																																														
<p><b>Assessment Methods in Alignment with Intended Learning Outcomes</b></p> <p>(Note 4)</p>	<table border="1" data-bbox="518 1429 1469 1910"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> <th>e</th> <th>f</th> </tr> </thead> <tbody> <tr> <td>Quiz</td> <td>20%</td> <td>√</td> <td>√</td> <td></td> <td></td> <td>√</td> <td>√</td> </tr> <tr> <td>Mini-project</td> <td>50%</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td>√</td> </tr> <tr> <td>Written examination</td> <td>30%</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td>√</td> <td>√</td> </tr> <tr> <td>Total</td> <td>100%</td> <td colspan="6"></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Students are assessed by both Continuous Assessment and Examination components. Continuous Assessment is based on a quiz (20%), and a mini-project (50%). The mini-project is used to assess students' abilities to integrate</p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e	f	Quiz	20%	√	√			√	√	Mini-project	50%	√	√	√	√		√	Written examination	30%	√	√	√		√	√	Total	100%						
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	project (50%). The mini-project is used to assess students' abilities to integrate and apply the knowledge acquired as well as their skills in problem-solving and critical thinking. The quiz and final examination are used to assess the knowledge acquired by students from lectures and other learning outcomes expected	
<b>Student Study Effort Expected</b>	Class contact:	
	▪ Lecture/experience sharing and case study sessions	29 Hrs.
	▪ Tutorial	6 Hrs.
	▪ On-site plant visit	4 Hrs.
	Other student study effort:	
	▪ Individual project assignment	66 Hrs.
	Total student study effort	105 Hrs.
<b>Reading List and References</b>	<u>Essential</u> McSwane D, Rue N and Linton R. Food Safety & Sanitation; Prentice Hall 2003 CXC 1-1969 General Principles of Food Hygiene; Codex Alimentarius, FAO/WHO Food Standards 2003 ( <a href="http://www.fao.org/fao-who-codexalimentarius">http://www.fao.org/fao-who-codexalimentarius</a> ) Food Hygiene Code; Food and Environmental Hygiene Department, Hong Kong Government 2018 ( <a href="https://www.fehd.gov.hk">https://www.fehd.gov.hk</a> ) ISO 22000:2018 Food safety management system – Requirements for any organization in the food chain, International Organization for Standardization <u>Supplementary</u> Longree K and Armbruster G. Quantity Food Sanitation; Wiley 1996 Mortimore, S. HACCP; Blackwell Science 2001	

Note 1: Intended Learning Outcomes

Intended learning outcomes should state what students should be able to do or attain upon completion of the subject. Subject outcomes are expected to contribute to the attainment of the overall programme outcomes.

Note 2: Subject Synopsis/Indicative Syllabus

The syllabus should adequately address the intended learning outcomes. At the same time over-crowding of the syllabus should be avoided.

Note 3: Teaching/Learning Methodology

This section should include a brief description of the teaching and learning methods to be employed to facilitate learning, and a justification of how the methods are aligned with the intended learning outcomes of the subject.

Note 4: Assessment Method

This section should include the assessment method(s) to be used and its relative weighting, and indicate which of the subject intended learning outcomes that each method purports to assess. It should also provide a brief explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.