

Subject Description Form

Subject Code	ABCT 2432
Subject Title	RAW FOOD MATERIALS
Credit Value	3
Level	2
Pre-requisite	Nil
Objectives	The subject is intended to provide students with a sound understanding of raw food materials of plant and animal origins. Students would also recognize the principle factors affecting the quality and safety of raw food materials during the processes of production and post-harvest treatment. This subject also aims to develop students' competence in handling matters in relation to safety concerns and safety controls of raw food materials through the understanding code of practices adopted and regulations reinforcing globally. Appropriate emphasis would be placed on the relevance to Hong Kong.
Intended Learning Outcomes	Upon satisfactory completion of the subject, students should be able to: <ul style="list-style-type: none"> a) understand the nature and characteristics of raw food materials of plant and animal origins and appreciate the importance of their quality and safety assurance; b) understand the basic principles of preservation and processing methods of raw food materials in order to safeguard the quality and safety of the products; c) apply and incorporate knowledge and skills learned to identify and solve problems associated with raw food materials; d) recognize the safety regulations and current issues in connection with raw food materials;
Subject Synopsis/ Indicative Syllabus	<p><u>Introduction (2 hours)</u> Introduction to the concept of food chain - "From Farm to Folk"; aspects of quality in raw food and their evaluation; the current situation (global and local) in the production and supply of different categories of raw food materials.</p> <p><u>Raw food materials of plant origin (18 hours)</u> Discussion on the characteristics (structure, composition and nutritive value, uses, etc); quality concerns (texture, colour, flavour, grading, etc); agricultural processes and post-harvest treatments (including transportation and storage) affecting quality and safety of the different categories of raw food materials:</p> <ul style="list-style-type: none"> i. Fruits and vegetables ii. Grains – rice, wheat, corns, etc iii. Flours - semi-processed products of cereal grains iv. Legumes – beans and peas <p><u>Raw food materials of animal origin (15 hours)</u> Discussion on the characteristics (structure, composition and nutritive value, uses etc.); quality concerns (texture, colour, flavour, grading etc.); husbandry processes and pre-slaughter treatments affecting quality (including post-mortem changes of meat) and safety of the products; transportation and storage of different categories of raw food materials:</p> <ul style="list-style-type: none"> i. Meat – beef, pork, poultry, etc. ii. Aquatic products – marine and fresh-water

	iii. Milk and milk products iv. Poultry eggs <u>Perspectives in food safety (4 hours)</u> i. Discussion on the major safety concerns – biological, chemical and physical hazards – associate with raw food materials. ii. Introduction to systems of practices for assuring safety in raw food materials, such as HACCP system. iii. Discussion on the regulations and current issues in connection with raw food materials.																																												
Teaching/Learning Methodology	Lectures supplemented with guided reading, case studies and practical examples, in the form of printed, audio-visual and electronic resources, will be adopted for facilitating students to achieve a deep understanding of the basic principles and concepts of the subject. Tutorial and practical classes will further equipped students with hand-on experience and problem solving abilities. Plant /field visits will be organized for the students to see knowledge in action.																																												
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1"> <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></th> <th></th> </tr> </thead> <tbody> <tr> <td>1.Continuous Assessment</td> <td>50</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> </tr> <tr> <td>2. Examination</td> <td>50</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: Continuous assessment including: assignment/lab report (12%); group project (14%); quiz (24%)</p>							Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d			1.Continuous Assessment	50	√	√	√	√			2. Examination	50	√	√	√	√			Total	100 %						
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1.Continuous Assessment	50	√	√	√	√																																								
2. Examination	50	√	√	√	√																																								
Total	100 %																																												
Student Study Effort Expected	Class contact:																																												
	▪ Lecture						26Hrs.																																						
	▪ Tutorial						7Hrs.																																						
	▪ Laboratory						6Hrs.																																						
	Other student study effort:																																												
	▪ Assignment and report/group project						30Hrs.																																						
	▪ Self-study						52Hrs.																																						
	Total student study effort						121Hrs.																																						
Reading List and References	<u>Essential Textbook</u> Vaclavik, V.A. & Christian E.W., Essentials of Food Science – Third Edition,																																												

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Supplementary

Potter, N.N. and Hochkiss, J.H. Food Science (5th ed.), Springer Science 1998

Springett, M.B. (Ed.). Raw Ingredient Quality in Processed Foods – the Influence of Agricultural Principles and Practices, Aspen Publishers 2001

Heap, R., *et al* (Eds.). Food Transportation, Blackie Academic & Professional 1998

Shahidi, F. *Et al* (Eds.). Quality of Fresh & Processed Foods, Kluwer Academic/ Plenum Publishers 2004

Useful Websites

<http://www.cfs.gov.hk>

<http://www.afcd.gov.hk>

<http://www.fehd.gov.hk>

http://www.codexalimentarius.net/web/index_en

<ftp://ftp.fao.org/unfao/>