Subject Description Form

Subject Code	ABCT2416
Subject Title	Introduction to Food Science
Credit Value	3
Level	3
Pre-requisite	**ABCT1700 Introduction to Chemistry** or obtained level 3 or above in HKDSE Chemistry as a full subject or as a component in a Combined Science subject or equivalent, <u>AND</u> **ABCT1102 General Biology**
Co-requisite	Nil
Objectives	The subject is intended to introduce the basic elements of food science, including the chemical composition of food, food microbiology and safety as well as food preservation and production technology.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. identify the major nutrients and chemical components in different food products b. understand the importance of controlling microbial growth in ensuring adequate and safe food supply c. understand the importance of using physical or chemical methods in food preservation and production and the measures to ensure the quality of the food d. develop analytical, critical thinking, and written communication skills.
Subject Synopsis/ Indicative Syllabus	**Basics of Food Science:** Overview of food & nutrition; raw food materials; food chemistry on macro and micro-nutrients; food microbiology and food processing methods. **Basics of Food Safety:** Introduction on Food chemical and biological hazards; Use of food additives; Food Quality assurance and control. **Basics of Food innovation**: Food biotechnology; product development and sensory science.
Teaching/Learning Methodology	The basic contents of this subject will be presented with the aid of lecture notes, videotapes, Blackboard platform and other teaching tools. For tutorials, students will participate in small-group discussions and learn to apply food science knowledge in daily practice. Students are also expected to study reference materials distributed in class, from the library or other sources (e.g. newspaper and magazine clippings, and information available on the Internet). A variety of assessment tools will be used, including quizzes and assignments to develop students' analytical skills, critical thinking and communication skills.

Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)				
			a	b	c	d	
	1. Assignments	20%	√	√	√	√	
	2. Tests	30%	√	√	√	√	
	3. Examination	50%	√	√	√	√	
	Total	100 %					

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Assignments, tests and examination are used to gauge how much students have learned in the introductory food science. The performance of the students in tutorials as well as in class assignment will be used to assess the ability of the students to apply the acquired food science knowledge in daily life as well as to analyze controversial food-related issues.

Student Study Effort Required	Class contact:	
	▪ Lecture	26 Hrs.
	▪ Tutorial	10 Hrs.
	▪ Presentation	3 Hrs.
	Other student study effort:	
	▪ Self study	82 Hrs.
	Total student study effort	121Hrs
Reading List and References	1. Shewfelt, Robert L. Introducing food Science. Boca Raton: CRC press, 2009	
	2. Vaclavik, Vickie A. & Christian, Elizabeth W. Essentials of Food Science, 3rd edition. Springer, 2008	
	3. McWilliams, Margaret. Food Fundamentals, 10th edition. Pearson, 2013	