

Applied Learning (Senior Secondary Level)

2021-23 Cohort

Learning and Teaching

Subject Title : **Food Innovation and Science**
Area of Studies : **Applied Science**
Course Provider : **School of Professional and Continuing Education,
The University of Hong Kong**

In Food Innovation and Science, student-centred learning and teaching activities are designed to enable students to understand fundamental theories and concepts, develop their generic skills, and address their career aspirations in food product development and nutrition industry.

Different modes of activities are employed to provide students with a systematic understanding about the context (e.g. lectures to introduce the theory and tools used in food science technology and innovation) and eye-opening opportunities to experience the complexity of the context (e.g. visit to food factories and local organic farms, as well as sharing by industry professionals to broaden students' horizons and to recognise the importance of modern food technology and food sustainability).

Students acquire an understanding of the requirements, fundamental knowledge and skills essential for further learning within the area through learning-by-practising opportunities in an authentic or near-authentic environment (e.g. laboratory practical in food science and technology as food technologists to apply the knowledge and technique of food science and technology to create and test innovative food products).

Students are also encouraged to develop and apply conceptual, practical and reflective skills to demonstrate entrepreneurship and innovation (e.g. case studies to evaluate the impact of modern food technology on the sustainability of food system). Students are given opportunities to integrate the knowledge and skills acquired and consolidate their learning (e.g. In the food product innovation and development project, students have a learning opportunity to create an innovative food product by using appropriate food technology and tools. During this process, students apply the knowledge and skills in processing and packaging the food products at industrial standard. Students are expected to demonstrate the positive values and attitudes in developing new food product that comply with food security and sustainable food system).

Applied Learning (Senior Secondary Level)

2021-23 Cohort

Curriculum Pillars of Applied Learning in Context – Food Innovation and Science

Upon completion of the subject, students should be able to:

- Describe the different roles and functions in food industry and the food supply chain;
- Describe the key steps in food product innovation and development;
- Demonstrate the fundamental knowledge and skills in food science and technology;
- Integrate the knowledge of food science, health, sustainable agricultural practices and food culture with innovative design principles in developing innovative and safe food products;
- Demonstrate the positive values and attitudes for food security and sustainable food system;
- Employ effective communication skills in collaborating with teammates through participation in the group activities and project; and
- Develop self-understanding for further studies and career development in the related field.

Through the specific contexts related to the subject, students have different learning opportunities, for example:

1. Career-related Competencies

- develop food science knowledge and skills with hands-on experience in food product development;
- apply analytical skills in food analysis and technologies in food production; and
- develop students' potential and interests in innovative design in food production to align with the long-term development of Hong Kong.

2. Foundation Skills

- enhance communication skills both in verbal and visual forms through participation in site-visits and report preparation, presentation and practical exercises;
- enhance information technology skills through doing research and information collection for assignments and projects; and
- enhance numeracy skills through exercises on food analysis.

3. Thinking Skills

- develop critical thinking and analytical skills through discussions on real life cases and practical exercises which will stimulate students' thinking and further understanding of the competency required by the industry;
- develop skills in problem solving and decision making through case study on the issues of food sustainability and innovation food product development project works which require information search and filtering; and
- appreciate the future development trend in sustainable food production and its economic value through real life case studies.

4. People Skills

- develop self-management skills through individual practical exercises and group works; and
- enhance team building skills and concept of division of works through group projects and the practical exercises.

5. Values and Attitudes

- develop self-confidence along with the coherent understanding of the application of knowledge and skills in food and health technologies; and
- establish self-esteem and positive attitudes towards the use of new and advanced technologies in developing innovative and sustainable food products.