CENG1800 Introduction to Food Science & Technology, 2025

Instructor: Marshal LIU Office: 4551, Tel: 2358 8409 Email: keysliu@ust.hk

TAs: TBC

Class Schedule:

Lecture: 14-JUL - 08-AUG MoWe 10AM - 12:50AM Room 4582

Lab 1: 9AM - 1:20PM, Lab 2: 1:30-5:50pm, Fri, Rm 2007, CYT Bldg,

Learning outcomes:

1. Identify and explain the major nutrients, chemical components, and their role in meeting the body's nutritional needs.
2. Understand the underlying principles, operations, and physical/chemical methods used in food processing, preservation, and production systems.
3. Appreciate the importance of adopting safe, sustainable, and economical practices when developing and utilizing food-related technologies.
4. Critically examine and discuss contemporary issues and challenges in the food industry, including regulatory, environmental, and socioeconomic factors.
5. Gain hands-on experience in food processing techniques through practical experiments and demonstrations.
6. Apply food science and technology concepts to design innovative food products, processes, or facilities that prioritize safety, sustainability, and economic viability.

Components of Assessment:

- Class participation and performance 5%
- 3 assignments 10%
- 3 quizzes (open book) 45%
- Lab performance and two short reports 30%
- Group project (Video presentation) 10%

Lab session:

- A total of 6 experiments.
- Every student submits two short reports (max 5 pages), within one week after finishing the experiment and obtaining data.
- A group comprises 4 students from different departments (better from different schools and years). Form your own group in the first week, and TA will help assign afterwards.

Reference:

1) Vaclavik, Vickie A. & Christian, Elizabeth W. Essentials of Food Science, 3rd edition, Springer, 2014 E-book
2) Shewfelt, Robert L., Boca Raton. Introducing Food Science. CRC press, 2009,
3) McWilliams, Margaret. Food Fundamentals, 10th edition, Pearson, 2013,
4) Fellows PJ. Food Processing Technology - Principles and Practice (3rd Ed.). Woodhead Publishing, 2009 E-book.
5) Others: US Food & Drug Administration, Centers for Disease Control and Prevention, Hong Kong's Department of Health