

FST-312 Food Quality Management 2(2-0)

Educational Objectives:

This course will focus on food quality and safety management in food production. Students will study the principle of quality assurance in food industry as well as quality management systems and their certification for an organization. Along the way, they will also discuss the statistical quality and process control methods in quality assurance as well as on food standard legislation, ISO quality standards and Halal food production. This course will also help in understanding Hazard Analysis Critical Control Point (HACCP) principles and food safety hazards and their application for the development of a HACCP plan in a food industry.

Course Outcomes:

1. This course will help to learn and explain methods used in quality assurance and quality management in the food industry.
2. Students will be able to understand how quality assurance can be used to monitor and control food quality and safety.
3. Students will learn how HACCP principles apply to design food safety plan

Course Contents:

- Food quality management:
 - History, importance, systems.
- Compliance of different quality systems in food production and supply chain.
- Aesthetic and microbial quality of the food products, Principle of quality management, Quality control tools,
- Good manufacturing practices (GMP):
 - Pre requisite program, GMP, Hazard analysis and critical control points (HACCP) system, Quality Management Systems; ISO -9001, Food Safety Management Systems (FSMS) FSSC-22000.
- Codex Alimentarius Commission (CAC) guidelines for food quality management, Quality control programs, Laws relating to food quality management

Recommended Books:

4. Juan Carlos Contreras-Esquivel, Laxmikant S. Badwaik, Porteen Kannan, A. K. Haghi, Food product optimization, 2020, Food product optimization for

quality and safety control: process, monitoring and standards, Apple academic press.

5. Xiaonan Lu, Xiaonan Lu, Xian Huang, Zhong Zhang, Russ Algar, Jie Xu, Shuo Wang, Yiwei Tang, Maria DeRosa, Wei Xue, Xian Zhang, Jane Ru Choi, 2017, Sensing techniques for food safety and quality control, Royal Society of chemistry.
6. Herschdoerfer, S. 2012, Quality control in food industry, Elsevier Science.