

# FOOD SCIENCE TECHNOLOGY (FST)

---

## **FST 1000 – Introduction to Food Science**

### **3 Credit hours**

Applies chemistry, biology, and engineering to hands on experience on the production and evaluation of foods. This includes basic food regulations, sanitation and formulation, as well as an overview of the global trends within food science and technology, the diversity of career opportunities with the industry, planning for a career and opportunities for professional development.

## **FST 1001 – Introduction to Food Science - Module I**

### **1 Credit hour**

Provides students with the basic concepts and manufacturing practices of the food industry. Chemical and biologic properties of food will be explored in consideration of spoilage and deterioration and how those qualities may be needed for digestion and nutritional purposes.

## **FST 1002 – Introduction to Food Science - Module II**

### **1 Credit hour**

Familiarizes students with the HACCP (Hazard Analysis Critical Control Point) prerequisites used to prevent food spoilage. This course will also allow a student to identify conditions used to destroy or inactive pathogens in food.

## **FST 1003 – Introduction to Food Science - Module III**

### **1 Credit hour**

Familiarizes the student with the safety concerns for each category of food product and the means of controlling it. This course will familiarize the student with a HACCP (Hazard Analysis Critical Control Point) plan.

## **FST 1100 – Food Processing**

### **3 Credit hours**

Examines food processing procedures and technologies including preservation and food packaging. Add ingredients used in processing will be addressed including the chemical and physical attributes of food additives.

## **FST 1101 – Food Processing - Module I**

### **1 Credit hour**

Develop and study food processing procedures including food preservation and food packaging. Students will develop an understanding of the chemical properties of food and how processing affects them.

## **FST 1102 – Food Processing - Module II**

### **1 Credit hour**

Understanding the types of food fermentation is essential to any food industry. In this course, students will research and investigate different types of food fermentation and understand how controlling the growth of micro-organisms is vital in food fermentation.

## **FST 1103 – Food Processing - Module III**

### **1 Credit hour**

Developing knowledge of alternative food processing techniques is an important aspect of food processing. In this course, students will look at alternative food processing techniques as well as how these techniques play a role in food packaging.

## **FST 1200 – Food Quality**

### **3 Credit hours**

Studies the management system in which food safety is addressed through analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product. Topics include, but are not limited to, HACCP and GMP.

## **FST 1201 – Food Quality - Module I**

### **1 Credit hour**

Introduces the students to Food Quality in industry. This course will familiarize the students with some common Food Industry Quality Standards including, but not limited to, GMP (Good Manufacturing Processes) and HACCP (Hazard Analysis Critical Control Point).

## **FST 1202 – Food Quality - Module II**

### **1 Credit hour**

Familiarizes students with the 5 principles of HACCP and demonstrates the principles in real world scenarios.

## **FST 1203 – Food Quality - Module III**

### **1 Credit hour**

Familiarizes students with the last two principles of HACCP and creates a HACCP plan for a food manufacturing facility.

## **FST 1300 – Food Plant Operations**

### **3 Credit hours**

Examines critical aspects of successful food plant operations including facilities, legal regulations, repair and maintenance of facilities and equipment, labor considerations, product handling, transport logistics and food product distribution.