Course Title: Food Science  
Prefix and Course Number: CUL 126  
Version Date: 1-3-2022  

Course Learning Outcomes:  
By the end of this course, a student should be able to:  

- Identify and explain the process of coagulation of animal proteins.  
- Identify and explain the process of starch/carbohydrate gelatinization.  
- Identify and explain the process of sugar caramelization and contrast the Maillard reaction.  
- Identify and explain the process of preservation in the form of pickling, curing, fermentation and smoking.  
- Identify and explain the process of Reduced Oxygen Processing (ROP) and Sous Vide cookery.  
- Identify and explain scientific methods becoming more commonly used in professional kitchens, commonly referred to as molecular gastronomy.  
- Identify and explain basics of baking science.  

Course Outline:  
I. Food science as applied to classical and modern cooking methods  
II. Food science as it applies to food preservation  
III. Food Science as it applies to baking  
IV. Food science as it applies to molecular gastronomy