

CUSC-420 : Advanced Concepts in Precision Temperature Cooking

This course explores the techniques and applications of precision temperature cooking methods used for a variety of products and outcomes. The microbiology and sanitation practices for precision and low temperature cooking will be covered, as well as the techniques, equipment, and processes used in the restaurant kitchen and in the modern food production center. Focusing primarily on sous-vide cooking, students will explore other equipment and techniques used to give precise and replicable results, such as combi and water vapor ovens. They'll also create process flow systems for precision temperature cooking facilities and study topics such as pasteurization, heat treatment, modified atmosphere, re-tort, shelf life, and re-thermalization. Additionally, the course will delve into creating and maintaining an effective HACCP plan.

Credits 3

Prerequisites

Culinary Science: Principles and Applications (CUSC-200), College Algebra (MTSC-110) or Calculus I (MTSC-205), Science Fundamentals (MTSC-115), Introduction to Statistics (MTSC-200), Culinary Chemistry (CUSC-310), Dynamics of Heat Transfer and Properties of Food (CUSC-315), Flavor Science and Perception (CUSC-320), and Research Methods: Scientific Evaluation of Traditional Cooking Techniques (CUSC-325).