

Food Processing Specialist Certificate

August 2014 - April 2015 Course Schedule

This program provides a broad working knowledge of technical elements of thermal processing systems (with understanding of alternative technologies) to qualify at an intermediate level as a recognized Food Processing Specialist. Students must complete four courses (12 credits) to receive the certificate.

Instructors are specialists from the U.S. Food and Drug Administration, the food industry, the Institute for Food Safety and Health, Illinois Institute of Technology, and the legal profession.

Please contact Renee McBrien at mcbrienr@iit.edu or 708.563.8271 re: the cost of tuition and fee schedule.

Required Courses (3 credit hours each)

- FPE 520 Low-Acid Canned Food Regulations and Microbiology
- FPE 522 Advanced Food Process Engineering
- FPE 523 Food Engineering Process Delivery
- FPE 526 Engineering Principles of Food

FPE 520 Low-Acid Canned Food Regulations and Microbiology

Instructors: John Larkin, PhD, Nate Anderson, PhD, Guy Skinner, PhD and Stephen Grove, PhD

Description: Regulatory requirements for the U.S. Food and Drug Administration, and the broad microbial issues associated with low acid canned foods (LACF) products. Topics will include the U.S. Food Drug & Cosmetic (FD&C) Act, Emergency Permit Control, 21 *Code of Federal Register (CFR)* parts 108, 113, and 114, record requirements, sources of microbial contamination, characteristics of *Clostridium botulinum*, mesophilic sporeformers, indicator organisms, and introduction to microbial heat resistance. (3-0-3)

Prerequisites: Introduction to Microbiology, food science and biochemistry background, instructor permission required

Date	Time	Location	Room
Aug. 26-27, 2014	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
August 28, 2014	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Sept. 23-24, 2014	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Sept. 25, 2014	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216

FPE 522 Advanced Food Process Engineering

Instructors: John Larkin, PhD, Nate Anderson, PhD, Greg Fleischman, PhD, and Kathiravan Krishnamurthy, PhD,

Description: Process calculations for food processing methods such as canning, aseptic processing, ohmic heating, microwave processing and pulsed energy processing. Extrusion techniques in food processing, and discussions of new food processing techniques and safety implications. (3-0-3)

Prerequisites: FPE 520 or FPE 521 and calculus background, instructor permission required

Date	Time	Location	Room
Oct. 14-15 2014	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Oct. 16, 2014	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Nov. 18-19, 2014	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Nov. 20, 2014	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216

FPE 523 Food Engineering Process Delivery

Instructors: John Larkin, PhD, Nate Anderson, PhD, Kathiravan Krishnamurthy, PhD, and Chris Balestrini

Description: Requirements for the U.S. Food and Drug Administration food canning regulations, including system design, process establishment, operational, and inspection records. Operations and calibration requirements of thermal processing equipment. How to design a process, document a process deviation and calculation of process delivery. (3-0-3)

Prerequisites: FPE 522, instructor permission required

Date	Time	Location	Room
Jan. 20-21, 2015	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Jan. 22, 2015	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Feb. 17-18, 2015	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
Feb. 19, 2015	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216

FPE 526 Engineering Principles of Food

Instructors: Yoon Song, PhD, John Koontz, PhD, and Kathiravan Krishnamurthy, PhD

Description: Methods for conducting seal integrity examinations, spoilage diagnosis, and traceability, defining and classifying package defects. Types of packaging materials, including metal, glass, plastics, flexible and composite containers, and their closure and sealing systems. Aseptic and alternative process delivery systems. (3-0-3)

Prerequisites: FPE 523, instructor permission required

Date	Time	Location	Room
March 17-18, 2015	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
March 19, 2015	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216
April 21-22, 2015	8 a.m. - 5 p.m.	Moffett Campus, Bedford Park, IL	Building 91, Room 216
April 23, 2015	8 a.m. - noon	Moffett Campus, Bedford Park, IL	Building 91, Room 216