

Better Process Control Schools

A training program for the processed food industry

To prepare industry practitioners and help companies meet federal regulations, the GMA Science and Education Foundation (SEF) promotes the Better Process Control Schools (BPCS) throughout the year. The course is beneficial to personnel in plants that pack and thermally process low-acid foods and acidified foods in hermetically sealed containers. Since 2009, GMA SEF has been recognized by the U.S. Food and Drug Administration (FDA) with the authority to conduct on-site BPCS courses in companies. In addition, GMA SEF partners with accredited institutions around the world to deliver scheduled programs throughout the year.

Advancement in abilities & compliance with regulations

The FDA regulations in 21 CFR 108, 113, and 114 became effective May 15, 1979, requiring that each processor of low-acid or acidified foods operate with a certified supervisor on hand at all times during processing. These regulations are designed to prevent public health problems in low-acid and acidified canned foods.

The BPCS course also meets U.S. Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) regulations 9 CFR 318.300 and 381.300 for thermally processed meat and poultry products implemented on June 19, 1987.

The BPCS subject areas include thermal processing system operations, microbiological food safety, equipment operations, and acidification and container closure evaluation programs for low acid and acidified canned foods.

Many details to learn & more than one training option

Training is typically delivered by two instructors (University Professor and/or recognized Process Authority). BPCS training can run from two to four days depending on the amount of materials covered. In order to receive a certificate of completion, attendees must complete and pass 7 required chapters. There are 10 additional chapters that can be used to customize each school based on a plant's needs. These chapters primarily cover equipment specific to the process as well as processing methods.

Who should attend Better Process Control Schools

The BPCS program is an important and valuable educational opportunity for mid-level managers and employees of food processing plants that utilize thermal processing.

The course is an excellent platform to improve food safety training for food safety and quality assurance personnel, individuals who work with canned and flexible packaged food products, academia, and government auditors and inspectors.

2015-2016

Better Process

Control Schools



Science and
Education
Foundation®

www.gmaonline.org/sef

Program Components

There are three training options to choose from:

- **Option 1:** Choose from one of 28 institutions listed in this catalog.
- **Option 2:** Contract the GMA SEF to hold a BPCS in your plant. Two instructors will be assigned to teach the course. For arrangements within the U.S. or internationally, contact: **Dr. Akhila Vasan** avasan@gmaonline.org, (202) 637-4810
- **Option 3:** BPCS training is also provided online. See catalog for participating institutions.

At the completion of course work and examination, participants are awarded a certificate of completion, providing an additional respected credential to processing professionals.

All schools offer: On-Demand In-Person Training and Company-Specific Onsite Training.

Course Text

The GMA SEF publication, *Canned Foods: Principles of Thermal Process Control, Acidification, and Container Closure Evaluation* (8th Edition) is the **only FDA approved text in the instruction of Better Process Control**. It is currently available in English, Spanish and Chinese at www.GMABooks.org.

BPCS is comprised of several modules, each supplemented by a chapter from the *Canned Foods* manual.

- **2-day BPCS** — Chapters 1,2, 4–8 (Federally mandated minimum)
- **3-day BPCS** — Acidified (Federally mandated minimum + Chapter 3)
- **4-day BPCS** — All modules in the *Canned Foods* manual

When customizing a workshop for a client, GMA SEF will recommend modules based on the client's products, processing methods, and packaging system.

2015–2016 Participating Institutions

Campden BRI

Course schedule to be determined

LOCATION: Station Road, Chipping Campden, GL55 6LD, UK

URL: <http://www.campdenbri.co.uk/>

CONTACT: Jo Rathkey

jo.rathkey@campdenbri.co.uk, +44 (0) 1386 842081

Chapman University

2-Day Acidified Foods Workshop:

March 21–22 and August 15–16, 2016

4-Day Low Acid Foods Workshop:

March 21–24 and August 15–18, 2016

LOCATION: One University Drive, Orange, CA

URL: www.chapman.edu/bpcs

CONTACT: Ms. Christy Dumauval

dumauval@chapman.edu, (714) 997-6566

Clemson University

BPCS: December 1–4, 2015

LOCATION: Hampton Inn in Greenville, SC

REGISTRATION CONTACT: Ms. Glenda Brown

gbrwn@clemson.edu

COURSE CONTACT: Dr. Felix Barron

fbarron@clemson.edu, (864) 656-5694

OFFERS TRAINING IN SPANISH

Cornell University

Acidified Foods Only: November 5–6, 2015

URL: events.cals.cornell.edu/bpcsnov2015

Low Acid and Acidified Foods: May 2–5, 2016

URL: events.cals.cornell.edu/bpcsmay2016

LOCATION: 630 W. North Street, Food Science, Geneva, NY

REGISTRATION CONTACT: Ms. Gemma Osborne

gro2@cornell.edu, (315) 787-2248

COURSE CONTACT: Dr. Olga Padilla-Zakour

oipl@cornell.edu, (315) 787-2255

OFFERS TRAINING IN SPANISH

Institute of Food Technology–ITAL

BPCS: May 16–20, 2016

LOCATION: Instituto de Tecnologia de Alimentos – ITAL, Av. Brasil. 2880, 13.070-178 Campinas – Sao Paulo, Brasil

URL: www.ital.sp.gov.br/gepc/

REGISTRATION CONTACT: Dr. Michele Nehemy Berteli

berteli@ital.sp.gov.br, 55 1937431834

COURSE CONTACT: Dr. Maria Isabel Berto

miberto@ital.sp.gov.br, 55 1937431835

OFFERS TRAINING IN PORTUGUESE

Louisiana State University

Acidified Foods Only: January 12–13, 2016

BPCS: July 25–28, 2016

LOCATION: Efferson Hall, LSU, Baton Rouge, LA

URL: www.lsu.edu/departments/nfs/outreach/training.htm#p5

REGISTRATION CONTACT: Ms. Celika Murphy

CMurphy@agcenter.lsu.edu, (225) 578-4475

COURSE CONTACT: Ms. Evelyn Gutierrez

MEGutierrez@agcenter.lsu.edu, (225) 578-6304

OFFERS BPCS TRAINING IN SPANISH

McGill University

BPCS: February 29–March 3, 2016

LOCATION: McGill University, Macdonald Campus, Ste-Anne-de-Bellevue, Québec, Canada

URL: www.mcgill.ca/foodscience/

REGISTRATION CONTACT: Brigitte Cadieux

Brigitte.Cadieux@mail.mcgill.ca, +1 (514) 398-7544

COURSE CONTACT: Lawrence Goodridge

Lawrence.Goodridge@mcgill.ca, +1 (514) 398-7921

Michigan State University

BPCS: October 6–9, 2015

URL: www.events.anr.msu.edu/BPCSOct2015

BPCS: March 8–11, 2016

URL: www.events.anr.msu.edu/BPCSMarch2016

LOCATION: Crop and Soil Science Teaching and Research (Agronomy Farm), 4450 Beaumont Road, Lansing, MI

CONTACT: Ms. Jennifer Labun

events@anr.msu.edu, (517) 353-3175

New Mexico State University

Acidified Foods Only: November 23–25, 2015

LOCATION: Las Cruces, New Mexico

Acidified Foods Only: March 15–17, 2016

LOCATION: Albuquerque, New Mexico

BPCS Spanish: May 24–27, 2016

LOCATION: Mexico City, Mexico

URL: www.aces.nmsu.edu/ces/foodtech/better-process-control-s.html

REGISTRATION CONTACT: Ms. Gloria Hernandez
glorhern@nmsu.edu, (575) 646-2198

COURSE CONTACT: Dr. Nancy Flores

naflores@nmsu.edu, (575) 646-1179

OFFERS BPCS TRAINING IN SPANISH

Northwest Food Processors Association

BPCS: August 31–September 2, 2015

LOCATION: 2780 Lee Rd, Prosser, WA (Training location may vary. Contact course provider for updates)

URL: www.nwfpa.org/nwfpa-events/training

CONTACT: Brian Campbell

bcampbell@nwfp.org, 503-327-2211

Oklahoma State University

BPCS: June 7–9, 2016

LOCATION: Room 120 FAPC, Stillwater, OK

URL: www.fapc.biz/workshops/processcontrol

CONTACT: Ms. Karen Smith

karenl.smith@okstate.edu, (405) 744-6277

Oregon State University

**Combined Acidified Foods and BPCS:
December 14–17, 2015**

LOCATION: Wiegand Hall, 3051 SW Campus Way, Corvallis, OR

URL: www.oregonstate.edu/foodsci/2015-afs-bpcs

REGISTRATION CONTACT: Debby Yacas

deborah.yacas@oregonstate.edu, (541) 737-6483

COURSE CONTACT: Dr. Mark Daeschel

mark.daeschel@oregonstate.edu, (541) 737-6519

Penn State University

BPCS: April 25–28, 2016

LOCATION: Nittany Lion Inn, State College, PA

URL: www.agsci.psu.edu/bpcs

REGISTRATION CONTACT: Ms. Kristin Smeltzer

kkw115@psu.edu, (814) 865-8301

COURSE CONTACT: Dr. Stephanie Doores

sxd11@psu.edu, (814) 863-2956

Purdue University

BPCS: May 9–12, 2016

LOCATION: Stewart Hall, Purdue University, West Lafayette, IN

URL: www.ag.purdue.edu/foodsci/extension/Pages/default.aspx

REGISTRATION CONTACT: Thomas Roberston, roberttl@purdue.edu

COURSE CONTACT: Dr. Manpreet Singh, Manpreet@purdue.edu

ABLE TO CONDUCT TRAINING IN SPANISH AND HINDI

Rutgers University

BPCS: November 11–13, 2015

LOCATION: Cook/Douglass Campus, New Brunswick, NJ

URL: www.cpe.rutgers.edu/programs/food_science_food_safety.html

REGISTRATION CONTACT: Ms. Bianca Scardina
scardina@rutgers.edu, (848) 932-7316

COURSE CONTACT: Dr. Dalynn Knigge

knigge@rutgers.edu, (848) 932-7315

Texas A&M University

BPCS: October 5–8, 2015

LOCATION: Courtyard Marriott, Hwy 6 at Prairie Rock Rd, College Station, TX

URL: www.aggie-horticulture.tamu.edu

REGISTRATION CONTACT: Ms. Cindy Wise

cindywise@tpga.org, (979) 846-3285

COURSE CONTACT: Dr. Al Wagner

a-wagner@tamu.edu, (979) 845-7023

The Ohio State University

BPCS: March 14–17, 2016

Acidified Foods Only: June 15–16, 2016

BPCS Spanish: August 8–11, 2016

LOCATION: Ohio State University Campus, 110 Parker Food Science, Columbus, OH

URL: www.go.osu.edu/bpcs

REGISTRATION CONTACT: Ms. Heather Dean,

dean.840@osu.edu, (614) 292-7004

COURSE CONTACT: Dr. Valente Alvarez, alvarez.23@osu.edu

OFFERS BPCS TRAINING IN SPANISH

Course Content

1. Introduction
2. Microbiology of Thermally Processed Foods
3. Principles of Acidified Foods
4. Principles of Thermal Processing
5. Principles of Food Plant Sanitation
6. Food Container Handling
7. Records and Recordkeeping
8. Equipment, Instrumentation, and Operation for Thermal Processing Systems
9. Still Steam Retorts
10. Still Retorts Processing with Overpressure
11. Hydrostatic Retorts
12. Continuous Rotary Retorts
13. Batch Agitating Retorts
14. Aseptic Processing and Packaging Systems
15. Closures for Double Seamed Metal and Plastic Containers
16. Closures for Glass Containers
17. Flexible and Semirigid Containers

University of Alaska Fairbanks —Alaska Sea Grant

BPCS: February 10–12, 2016

LOCATION: 1007 W 3rd Ave, Suite 100, Anchorage, AK

URL: www.seagrant.uaf.edu/map/workshops/2016/bpcs

CONTACT: Mr. Chris Sannito

csannito@alaska.edu, (907)486-1535

University of Arkansas

BPCS: November 2–4, 2015

LOCATION: Student Union Building Room 507

URL: www.uark.edu/ua/foodpro/Workshops/index.html

CONTACT: Dr. Steve Seideman

seideman@uark.edu, (479) 575-4221

University of California–Davis

In-Person Course: February 9–12, 2016

**Acidified Foods Manufacturing School,
UC Davis ARC + RMI: February 9–11, 2016**

LOCATION: Activities and Recreation Center Ballroom, UC Davis

ONLINE BPCS: [www.ucfoodsafety.ucdavis.edu/
Better_Process_Control_Schools_at_UC_Davis/](http://www.ucfoodsafety.ucdavis.edu/Better_Process_Control_Schools_at_UC_Davis/)

REGISTRATION CONTACT: Ms. Zann Gates

zgates@ucdavis.edu, (530) 752-5901

COURSE CONTACT: Dr. Linda Harris

ljharris@ucdavis.edu, (530) 754-9485

OFFERS ONLINE TRAINING

University of Georgia

Acidified Foods Only: November 10–12, 2015

BPCS: March 15–18, 2016

LOCATION: 240 Food Science Building,
University of Georgia Campus, Athens, GA

URL: [www.caes.uga.edu/departments/fst/
WorkshopCalendar.html](http://www.caes.uga.edu/departments/fst/WorkshopCalendar.html)

REGISTRATION CONTACT: Ms. Marian Wendinger

marianw@uga.edu, (706) 542-2574

COURSE CONTACT: Dr. Bill Hurst

bhurst@uga.edu, (706) 542-0993

University of Hawaii

BPCS: August 17–20, 2015

LOCATION: University of Hawaii at Manoa

URL: [www.manoa.hawaii.edu/ctahr/
pacific-afsp/?page_id=127](http://www.manoa.hawaii.edu/ctahr/pacific-afsp/?page_id=127)

CONTACT: Dr. Aurora Saulo

aurora@hawaii.edu, (808) 956-6564

OFFERS TRAINING IN TAGALOG

University of Massachusetts

Low Acid and Acidified: November 17–20, 2015

LOCATION: 243 Chenoweth Lab, Amherst, MA

URL: www.umass.edu/foodsci

CONTACT: Amanda Kinchla

amanda.kinchla@foodsci.umass.edu, (413) 545-1017

University of Nebraska–Lincoln

BPCS: September 29–October 1, 2015

Acidified Foods Only: April 11–12, 2016

BPCS: September 27–29, 2016

LOCATION: Holiday Inn Downtown, 141 North 9th

URL: fpc.unl.edu/bpcs

REGISTRATION CONTACT: Ms. Jill Gifford

jgifford1@unl.edu, (402) 472-2819

COURSE CONTACT: Dr. Jayne Stratton

jstratton1@unl.edu, (402) 472-2829

University of Puerto Rico —Mayaguez Campus

Acidified and Low Acid, Spanish: June 6–9, 2016

LOCATION: Food Safety Institute of University of Puerto Rico

REGISTRATION CONTACT: Ms. Leanora Grin

leanoray.grin@upr.edu, (787) 832-4040 ext 2926

COURSE CONTACT: Dr. Lynette Orellana

lynette.orellana@upr.edu, (787) 832-4040 ext 2924

University of Tennessee

BPCS: September 22–25, 2015

Acidified Foods Only: September 22–23, 2015

LOCATION: Holiday Inn World Fair Park, 525 Henley Street,
Knoxville, TN

BPCS: February 16–19, 2016

Acidified Foods Only: February 16–17, 2016

LOCATION: Holiday Inn Opryland–Airport, 2200 Elm Hill Pike,
Nashville, TN

URL: <http://iiny.utk.edu/BPCS>

REGISTRATION CONTACT: Ms. Lyssa McKenry

lmckenry@utk.edu, (865) 974-7717

COURSE CONTACT: Dr. Faith Critzer

faithc@utk.edu, (865) 974-7274

University of Wisconsin–Madison

BPCS: April 26–29, 2016

LOCATION: Pyle Conference Center, 702 Langdon Street,
Madison, WI 53706

URL: www.foodsafety.wisc.edu

REGISTRATION CONTACT: Ms. Angela Chopp

angela.chopp@ecc.uwex.edu, (608) 265-9585

COURSE CONTACT: Dr. Barbara Ingham

bhingham@wisc.edu, (608) 263-7383

Washington State University

Acidified Foods Only: February 1–5, 2016

**4 day full course: February 1–5, 2016
(exact dates to be determined)**

LOCATION: Greater Seattle area

URL: <http://foodprocessing.wsu.edu/extension/training/bpcs/>

REGISTRATION CONTACT: Ms. Cathy Blood

blood@wsu.edu, (509) 335-2845

COURSE CONTACT: Dr. Girish Ganjyal

girish.ganjyal@wsu.edu, (509) 335-5613