This course is intended for new employees in the dairy processing industry. The purpose of this course is to develop and increase the knowledge, skills and proficiency necessary for the operation, inspection and testing of milk pasteurization equipment. Emphasis is given to the controls and tests necessary to assure effective pasteurization of milk and milk products.

The course is designed to teach the public health reasons for the requirements which govern design, function, and operation of milk pasteurization equipment.

### INSTRUCTORS

**K.P. Sandeep, Ph.D.**, Professor  
NC State University, Department of Food, Bioprocessing and Nutrition Sciences

**David P. Green, Ph.D.**, Professor  
NC State University, Department of Food, Bioprocessing and Nutrition Sciences

**Kay Sigmon**, Branch Head, and Staff  
NC Department of Environment and Natural Resources, Division of Environmental Health

**Gary Cartwright**, Pilot Plant Coordinator  
NC State University, Department of Food, Bioprocessing and Nutrition Sciences

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**MEETING LOCATION**

The course will be held at the Department of Food, Bioprocessing and Nutrition Sciences.

**Schaub Hall**  
400 Dan Allen Dr.  
Raleigh, NC 27607  
Phone: 919-515-2957  
http://www.ncsu.edu/foodscience

Schaub Hall is at the corner of Dan Allen Drive and Sullivan Drive on the NC State University campus.

The closest airport is the Raleigh-Durham Airport (RDU), approximately 13 miles from NC State University.

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**ACCOMMODATIONS**

Within three miles of campus:

**Holiday Inn**  
1707 Hillsborough St.  
Raleigh, NC 27605  
919-828-0811

**Clarion Hotel**  
320 Hillsborough St.  
Raleigh, NC 27603  
919-832-0501

**Holiday Inn Express**  
3741 Thistledown Dr.  
Raleigh, NC 27606  
919-854-0001

**Days Inn**  
300 N. Dawson St.  
Raleigh, NC 27603  
919-828-9081

**Ramada Inn**  
1520 Blue Ridge Rd.  
Raleigh, NC 27607  
919-832-4100

**Sheraton**  
421 S. Salisbury St.  
Raleigh, NC 27601  
919-834-9900

**Raleigh Marriott**  
434 Fayetteville St. Mall  
Raleigh, NC 27601  
919-833-1120

Other lodging within five miles of campus:

**Comfort Suites**  
1200 Hurricane Alley Way  
Raleigh, NC 27607  
919-854-0502

**Hampton Inn & Suites**  
111 Hampton Woods Ln.  
Raleigh, NC 27607  
919-233-1798

**Candlewood Suites**  
1020 Buck Jones Rd.  
Raleigh, NC 27606  
919-468-4222

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**HTST Equipment, Controls and Tests**  
A Basic Workshop for Dairy Processors  
May 25-26, 2011  
NC State University Campus  
Raleigh, North Carolina

**Sponsored by**  
NC State University, Department of Food, Bioprocessing and Nutrition Sciences  
NC Department of Environment and Natural Resources, Division of Environmental Health
**Program**

**Wednesday, May 25, 2011**

8:30  Welcome and Introductions  
David Green

8:45  Grade A Milk Program Overview  
Kay Sigmon

9:15  Background and History of Milk Pasteurization  
K.P. Sandeep

10:00  Break

10:15  Vat Pasteurization  
K.P. Sandeep

11:00  Basic HTST Pasteurization  
K.P. Sandeep

12:00  Lunch - provided

**Thursday, May 26, 2011**

8:30  Pilot Plants and Dairy Enterprises  
Gary Cartwright

9:00  HTST Thermometers Pilot Plant Demonstrations  
Chris Alexander

10:00  Break

10:15  Pressure Controls Pilot Plant Demonstrations  
Chris Alexander  
*Group 1 - Demo; Group 2 - Prob. Solving*  
*Group 2 - Demo; Group 1 - Prob. Solving*

12:00  Lunch - provided

1:00  Flow Diversion Device and Timing Systems Theory  
Mike Dennis / Ken Sykes

2:00  Flow Diversion Device and Timing Systems Pilot Plant Demonstrations  
*Group 1 - Demo; Group 2 - Prob. Solving*

3:00  Break

*Group 2 - Demo; Group 1 - Prob. Solving*

4:15  Temporary Seals Program  
Joe Briscoe

4:45  Questions and Answers  
David Green

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Please note that under extenuating circumstances, substitutions for speakers, topics and/or times may be necessary.