



Daily schedule

Cookie and Cracker Technology Short Course April 17-21, 2017

Course Instructors

Course Director: Dr. Gary Hou, Technical Director and Wheat Foods Specialist
Faculty member: Dr. Meera Kweon, Associate Professor, Pusan National University
(former employee of Kraft Foods, Pepperidge Farm, and USDA-ARS)

Lab equipment

A pilot-scale cookie and cracker line will be used in this course.

Monday, April 17

AM 7:45 Leave for WMC; transportation provided by the hotel
8:00 Welcome and introduction by WMC
8:30 Lecture: Overview of cookie and cracker production technology
9:30 Lecture: Ingredients for cookies and crackers
- Flour (milling, quality control and specifications)
- Sugar
- Water
- Enzymes
12:00 Lunch provided by WMC
PM 1:00 Workshop: Wire-cut cookie baking with different flours
4:10 Leave for hotel

Tuesday, April 18

AM 8:00 Lecture: Ingredients for cookies and crackers (cont.)
- Yeast fermentation
- Chemical leavening system
- Fat and oil
- Seasoning & flavoring
- Other minor ingredients
12:00 Lunch provided by WMC
PM 1:00 Workshops: Chemically-leavened and enzyme cracker production on the pilot line
4:10 Leave for hotel

Wednesday, April 19

- AM 8:00 Lecture: Processes of cookie and cracker products
- Mixing
 - Resting (lay time) or proofing
 - Sheeting, laminating, and forming
 - Baking
- 12:00 Lunch provided by WMC
- PM 1:00 Lecture: Cookie, cracker and flour: obtaining functionality
- 2:00 Workshop:
- Flour quality analysis demo (SRC and Alveograph)
 - Prepare saltine cracker sponges
- 4:10 Leave for hotel

Thursday, April 20

- AM 8:00 Workshops
- Determine sponge pH, TTA
 - Prepare saltine cracker dough
- 10:00 Lecture: Cookie and cracker quality (dough & final product)
- Dough characteristics of cookie and cracker
 - Cookie and cracker texture
- 12:00 Lunch provided by WMC
- PM 1:00 Workshops:
- Process and evaluate saltine crackers on the pilot line
 - Product quality evaluation: color, pH, moisture and texture
- 4:15 Leave for hotel
- 5:30 Graduation dinner hosted by WMC

Friday, April 21

- AM 8:00 Lecture: Application of healthy functional ingredients in cookie and cracker
- Whole grain & ancient grain
 - Fibers (soluble, insoluble & enzyme resistant starches)
 - Sugar replacement
 - Fat replacement
- 9:30 Lecture: Whole-wheat crackers and quality improvement
- 10:30 Workshop: Process and evaluate Marie biscuit on the pilot line
- 11:30 Course wrap-up and evaluation
- 12:00 Lunch box
- PM 12:15 Leave for hotel (if needed)

Lodging

A block of rooms has been reserved at the special rate of \$ 179 plus taxes per night. Mention the group name “Wheat Marketing Center” to get this special rate.

This rate includes daily hot continental breakfast and free internet service.

Course participants are responsible for their hotel reservation and bill.

Hotel:

Residence Inn by Marriott – Portland Downtown RiverPlace,
2115 SW River Parkway, Portland, OR 97201
(503) 552-9500

<http://www.marriott.com/hotels/travel/pdxri-residence-inn-portland-downtown-riverplace/?scid=bb1a189a-fec3-4d19-a255-54ba596febe2>

Residence Inn by Marriott will provide daily transportation between the hotel and the Wheat Marketing Center for course participants.

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Pick up time at the hotel is 7:45 am and the return time from the Wheat Marketing Center is 4:10 pm on Tuesday to Thursday, 12:15 pm on Friday.