

**FOOD SAFETY AND MEAT MICROBIOLOGY SCHOOL**  
**University of Wisconsin-Madison**  
**Food Research Institute/Meat Science & Animal Biologics Discovery**  
**September 13-15, 2022**

**Tuesday, September 13, 2022**

- 7:15 AM Shuttle departs DoubleTree hotel for Meat Science & Animal Biologics Discovery (MSABD)
- 7:30 AM Registration & Pre-Test
- 8:00-8:15 Welcome and Introductions  
**Chuck Kaspar**, Director, FRI; University of Wisconsin-Madison  
**Kent Weigel**, Chair of Department of Animal & Dairy Science; University of Wisconsin-Madison  
**Jeff Sindelar**, University of Wisconsin-Madison
- 8:15-8:45 History of Food Safety in the Meat Industry  
**Andy Milkowski**, University of Wisconsin-Madison
- 8:45-9:45 Understanding Microbiology in Meat Processing: Pathogens  
**Peter Taormina**, Etna Consulting Group
- 9:45-10:15 BREAK & Group picture
- 10:15-11:15 Understanding Microbiology in Meat Processing: Production & Process  
**Peter Taormina**, Etna Consulting Group
- 11:15-12:00 Rapid Methods for Microbiology  
**Dana Dittoe**, University of Wisconsin-Madison
- 12:00-1:00 LUNCH - Dejope
- 1:00-5:30 Laboratory Exercise #1: 1.25 hour sessions with a 15-min break between each session.
- 1:00-5:20
- Group A: **Microbiology Methods (MSABD 2133)**: microbiological laboratory methods, dilution & plating techniques, stomaching, enrichments, streaking  
**Kathy Glass**, **Adam Berger**, **Kristin Schill**, UW-Madison, **Jessica Brown**, UW-Madison, **Dana Dittoe**, UW-Madison, **Mark Mulvahill**, Stratix Labs
- Group B: **Meat Processing (MSABD 1127)**: analytical tools important for food safety, developing thermal processing profiles  
**Jeff Sindelar**, **Andy Milkowski**, **Jordan Nehls** UW-Madison

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Group C: **Sanitation (MSABD 1111):** environmental monitoring, pre-operational inspections (visual, swabbing). ATP testing, principles of sanitary equipment design, product sampling procedures  
**Greg Marconnet, Mead & Hunt, Cindy Austin, University of Wisconsin-Madison**

- 5:30 PM Shuttle departs MSABD building for DoubleTree hotel
- 6:00 Shuttle departs the DoubleTree Hotel for Café Hollander  
**(MMC Candidates Only)**
- 6:15 Reception at Café Hollander
- 6:45 Dinner
- 7:15 Evening Program at Café Hollander  
Professional Development Activity: Plant Project Ideas Presentation  
**Jeff Sindelar, University of Wisconsin-Madison**  
**Jeff Swenson, WI Dept. of Ag, Trade, and Consumer Protection**  
**Jesse Brookstein, University of Wisconsin-Madison**
- 9:00 p.m. Shuttle departs Café Hollander for the DoubleTree Hotel

**Wednesday, September 14, 2022**

- 7:15 AM Shuttle departs DoubleTree hotel for MSABD
- 7:30 AM Breakfast – MSABD
- 8:00-9:00 Process Integration for Hygienic Design  
**Greg Marconnet, Mead & Hunt**
- 9:00-10:00 Pre- and Post- Food Safety Considerations, Challenges & Opportunities  
**Ted Brown, Cargill Meat Solutions**
- 10:00-10:15 BREAK
- 10:15-11:00 Gram Positive Pathogens in the Meat Industry  
**Kathy Glass, University of Wisconsin-Madison**
- 11:00-11:45 Gram Negative Pathogens in the Meat Industry  
**Chuck Kaspar, University of Wisconsin-Madison**

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- 11:45-12:45            LUNCH – MSABD
- 12:45-1:30            Spoilage Bacteria, Yeasts, and Molds in the Meat Industry  
*Adam Borger, University of Wisconsin-Madison*
- 1:30-2:15             Developing a Company Wide Food Safety Culture  
*Mark Ryan, Maple Leaf Foods*
- 2:15-3:00             Foodborne Illness Outbreaks & Investigations  
*Lynn Roberts, Wisconsin Division of Public Health*
- 3:00-3:30             BREAK
- 3:30-4:15             Developing an Effective Food Safety Recordkeeping System  
*John Weisgerber, Weisgerber Consulting LLC*
- 4:15-5:15             Thermal Processing to Control Microorganisms; Microbial Modeling /  
Determining Process Lethality / Stabilization  
*Jason Enfield, Hormel Foods*
- 5:15                    Reception at MSABD
- 6:00                    Picnic at MSABD
- 8:00 PM                Shuttle departs MSABD for DoubleTree

**Thursday, September 15, 2022**

- 7:15 AM                Shuttle departs DoubleTree for MSABD building
- 7:45-8:45             HACCP from a Microbiological Perspective  
*Joe Meyer, WI Dept. of Agriculture, Trade, and Consumer Protection*
- 9:00-11:45            Laboratory Exercise #2: 45-minute sessions with a 15-min break between  
each session.
- 9:00-11:30
- Group A:            **Microbiology Methods (MSABD 2133):** ppt; review microbiology results;  
deviation troubleshooting; common deviations/errors; scenarios  
*Kathy Glass, Adam Borger, Kristin Schill UW-Madison, Jessica Brown,  
UW-Madison, Dana Dittoe, UW-Madison, Tina Caskey, Neogen; Mark  
Mulvahill, Stratix Labs*

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- Group B: **Meat Processing (MSABD 1127):** ppt on and generating and interpreting thermal processing profiles; modeling data  
**Jeff Sindelar, Jordan Nehls, University of Wisconsin-Madison, Jason Enfield, Hormel Foods**
- Group C: **Shelf-life Methods (MSABD 1111):** Finished product evaluations (off product), understanding product shelf life  
**Cindy Austin, Andy Milkowski University of Wisconsin-Madison**
- 11:45-12:45 LUNCH – Dejope
- 12:45-1:45 Ingredients with Antimicrobial Impact Commonly Used in the Meat Industry  
**Garrett McCoy, Corbion**
- 1:45-2:30 Validation of Food Safety Systems  
**Jeff Sindelar/Jordan Nehls, University of Wisconsin-Madison**
- 2:30-2:45 BREAK
- 2:45-3:30 Environmental Sampling Programs  
**Joe Meyer, WI Dept. of Agriculture, Trade, and Consumer Protection**
- 3:30-4:30 Developing Effective Food Safety Systems (including regulations)  
**John Butts, Land O’Frost / Food Safety by Design**
- 4:30-4:45 Concluding Comments/ Final Questions
- 4:45 PM Shuttle departs MSAB for DoubleTree hotel

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**Laboratory Exercises**

**Tuesday, September 13, 2022**

1:00-5:30 pm

**MSABD Building (1 h, 20 min sessions, 15 min transition)**

Group A: **Microbiology Methods (MSABD 2133)**: ppt on micro methods, hands on plating, microbiological laboratory methods, dilution & plating techniques, stomaching, enrichments, streaking; supplies (media, culture, lab coats, etc.)  
**Kathy Glass, Adam Berger, Kristin Schill, UW-Madison, Jessica Brown, UW-Madison, Dana Dittoe, UW-Madison, Mark Mulvahill, Stratix Labs**

Group B: **Meat Processing (MSABD 1127)**: 20 min ppt on analytical tools important for food safety and developing thermal processing profiles, water activity demo, pH demo,  
**Jeff Sindelar, Andy Milkowski, Jordan Nehls University of Wisconsin-Madison**

Group C: **Sanitation (MSABD 1111)**: 1) overview (list) of sanitary design (ppt-Greg); 2) environmental monitoring (ppt-Cindy) 3) screw cleaning (demo-Greg); 4) plant walk-thru (harvest floor/processing; staged equipment; 5) in-plant environmental monitoring/swabbing/conversation (pre-operational inspections, swabbing, ATP testing)  
**Cindy Austin, University of Wisconsin-Madison; Greg Marconnet, Mead & Hunt**

1:00 – 2:20 pm

2:30 – 3:50 pm

4:00 – 5:20 pm

5:25 pm: reconvene before dismissal (picnic start immediately after)

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**Thursday, September 15, 2022**  
9:00-11:30 am

**MSABD Building (45 Min Sessions; 15 min transition)**

- Group A: **Microbiology Methods (MSABD 2133):** ppt; review microbiology results; deviation troubleshooting; common deviations/errors; scenarios  
***Kathy Glass, Adam Berger, Kristin Schill*** UW-Madison, ***Jessica Brown,*** UW-Madison, ***Dana Dittoe,*** UW-Madison, ***Tina Caskey,*** Neogen; ***Mark Mulvahill,*** Stratix Labs
- Group B: **Meat Processing (MSABD 1127):** ppt on and generating and interpreting thermal processing profiles; modeling data  
***Jeff Sindelar, Jordan Nehls,*** University of Wisconsin-Madison, ***Jason Enfield,*** Hormel Foods
- Group C: **Shelf-life Methods (MSABD 1111):** Finished product evaluations (off product), understanding product shelf life  
***Cindy Austin, Andy Milkowski*** University of Wisconsin-Madison

9:00 – 9:45 am  
9:55 – 10:35 am  
10:45 – 11:30 am