Travel Info: maps & directions https://ag.tennessee.edu/Pages/directions.aspx



Accommodations:

Participants are responsible for arranging their own lodging. Call for recommendations. Hilton Garden Inn Knoxville/University TN is next to campus and does offer a discount to the University Sponsored events. The phone number and address are 865-437-5500 and 1706 Cumberland Ave., Knoxville, TN 37916.

UT EHEDG Authorized Test Institute

University of Tennessee Food Science & Technology Bldg 2510 River Drive Knoxville, TN 37996-4539 Phone: 865-974-7499; Fax: 865-974-7331 E-mail: Mark.Morgan@utk.edu



October 25-27, 2017



EHEDG Advanced Course on Hygienic Design

For Food Processing Equipment Manufacturers and End Users

THE UNIVERSITY of TENNESSEE

INSTITUTE of AGRICULTURE



1. Introduction

Hygienic design of equipment and facilities is one of the main tools that food, pharmaceutical and cosmetics companies have in order to achieve their final aim of guaranteeing the safety of the products they manufacture. These industries and food equipment manufacturers should be aware of the importance of hygienic aspects in the activities they carry out. EHEDG (European Hygienic Engineering and Design Group) provides practical guidance on hygienic engineering for manufacturing safe and wholesome food. Founded in 1989, it is a consortium of equipment manufacturers, food companies, research and educational institutes as well as public health authorities whose common aim is to promote hygiene during the processing and packaging of food products.

The UT EHEDG Testing Laboratory has is the only EHEDG Authorized Test/Certification Institute in North America.

2. Aim

The course gives knowledge and insight into the hygienic design of equipment and processes for the food industry and benefits of hygienic design to satisfy the needs of equipment manufacturers and food processors. These include minimal down time, maintenance, cleaning costs, environmental impact and efficient cleaning, optimal product safety and constant product quality.

3. Methodology

This is a practical applications course. The fundamentals of the various topics are presented and related to practice by means of examples. Participants will apply and test their knowledge with case studies in the pilot plant. The course provides tools to solve hygienic problems within your own organization. Because of the small groups the course is very interactive.



EA/EOU



The cost for the course is \$1495 including handouts, hands-on exercises, and meals.

REGISTER by October 1, 2017

Pre-registration is mandatory. The University reserves the right to limit enrollment; however, no school will be offered to fewer than 10 participants.

Preferred method of registration is online with a credit card. Register online at:

: <u>https://secure.touchnet.com/C21610_ustores/</u> web/product_detail.jsp?PRODUCTID=564

For questions, please contact us at:

Dr. Mark Morgan The University of Tennessee Food Science & Technology Room 201 Food Science Bldg. Knoxville, TN 37996-4539 865-974-7331 foodsci@utk.edu

PROGRAM

| Module | October 25 | Торіс |
|--------|---------------|--|
| 1 | 8:00-8:15 | Welcome; Introduction speakers panel; participants; program |
| 2 | 8:15 - 9:30 | 3A & EHEDG Legal Requirements |
| | 9:30 - 9:45 | Break |
| 3 | 9:45 - 10:45 | Hazards in hygienic processing |
| 4 | 10:45 - 12:15 | Hygienic design criteria |
| Lunch | 12:15-1:30 | |
| 5 | 1:30-2:30 | Materials of construction |
| 6 | 2:30 - 3:15 | Welding Stainless Steel |
| | 3:15-3:30 | Break |
| 7 | 3:30-4:15 | Static seals and couplings |
| 8 | 4:15-5:00 | Valves |
| Dinner | 6:00 | |

| Module | October 26 | Торіс |
|--------|--------------|---|
| 9 | 8:00 -9:30 | Cleaning & Disinfection |
| | 9:30 -10:30 | Verification of Hygienic design, Test Methods, Certification |
| 10 | 10:30 -11:30 | Design for Cleanability |
| Lunch | 11:30-12:30 | |
| 11 | 12:30-1:15 | Pumps & Dynamic Seals |
| | 1:15 - 4:15 | Case Study I |
| Dinner | 6:00 | |

| Module | October 27 | Торіс |
|--------|---------------|--|
| 12 | 8:45 - 9:15 | Building & Process Layout |
| 13 | 9:15 - 10:00 | Installation & Maintenance, Lubricants |
| | 10:00 - 10:15 | Break |
| 14 | 10:15 - 11:15 | Dry Processing |
| Lunch | 11:15-12:00 | |
| | 12:00 - 2:00 | Case Study II |
| 15 | 2:00 -3:00 | Course Exam & Evaluation |

4. Why attend

Attendees will:

-gain practical and theoretical understanding of hygienic design and the benefits for manufacturers and users of food processing equipment

- be able to identify non-hygienic features, improve equipment designs, and make better informed decisions about equipment purchases.

5. Previous training and working experience

Although not required, the participants should have some previous practical experience in hygienic design.

6. Course data and location

The course will be held in the facilities of **The University of Tennessee, Department of Food Science on** October 5-7, 2016. Lunches and two dinners are included.

7. Instructors

Mark T. Morgan - University of Tennessee, EHEDG Test Institute Director

8. Certificate

An attendance certificate will be provided at the end of the course and those who pass a final exam can be listed on the EHEDG website

9. Costs

The cost for the course is 1495 including hand-outs, hands-on exercises, and meals.

10.3-A Standards

A comparison of some 3-A standards and EHEDG guidelines will be included. Advanced hygienic design principles of food processing equipment to improve safety and minimize down time, maintenance, and cleaning costs will be covered.

