2016 Greenhouse Crop Production & Engineering Design Short Course
March 20 - 25, 2016

Located at the Westward Look Wyndham Grand Resort and Spa
245 East Ina Road, Tucson, Arizona 85704

http://ceac.arizona.edu/greenhouse-crop-production-engineering-design-short-course

Sponsored By:
Meister Media Worldwide
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Sunday, March 20, 2016, Afternoon

Arrival, Set-Up, Registration, Welcome Reception and ‘Get Acquainted’ Day

2:00 – 5:30 pm    Exhibitor Set-Up
3:30 – 6:00 pm    Registration Table Open
3:30 pm           Exhibitor Gallery Open until 7:30 pm
5:30 pm           Cash Bar Opens
5:30 – 7:30 pm    Welcome Reception
7:30 pm           Invited Speakers Meeting
Monday, March 21, 2016, Morning

“Plant Production I within Hydroponics & Controlled Environments”

Moderator: Gene Giacomelli

7:00 – 8:00 am  Breakfast
8:00 – 8:15 am  Welcome and Introductions: Gene Giacomelli
8:15 – 9:00 am  Growing Systems and the Crops they Support
                  Dr. Merle Jensen, Greenhouse Vegetable Consultants
9:00 – 9:45 am  Tomato Varieties for Greenhouse
                  TBA
9:45 – 10:30 am Leafy Crop Varieties for Greenhouse
                  Dr. Mike Evans, The University of Arkansas
10:30 – 10:45 am Break - Visit your Exhibitors
10:45 – 11:15 am Discussion of Previous Lectures - Question & Answers
11:15 – 11:45 am 6, 5-minute Exhibitor presentations
11:45 – 12:00 Announcements
12:00 – 1:00 pm Lunch

Monday, March 21, 2016, Afternoon

“Plant Production II within Hydroponics & Controlled Environments”

Moderator: Pat Rorabaugh

1:00 – 1:45 pm  Greenhouse Pest Problems: Common insects, mites & diseases
                   Dr. Stacy Tollefson
1:45 – 2:30 pm  Integrated Pest Management
                   Karin Tifft, Greenhouse Vegetable Consultants, LLC
2:30 – 2:45 pm  Disinfectants
                   Karin Tifft, Greenhouse Vegetable Consultants, LLC
2:45 – 3:15 pm  Discussion of Previous Lectures - Question & Answers
3:15 – 3:30 pm  Break, Visit your Exhibitors
3:30 – 3:45 pm  3, 5-minute Exhibitor presentations
3:45 – 4:30 pm  Plant Nutrition Basics
                   Dr. Pat Rorabaugh
4:30 – 5:15 pm  Working with Substrates – chemical and physical properties
                   Dr. Mike Evans, The University of Arkansas
5:15 – 5:45 pm  Discussion of Previous Lectures - Question & Answers

Dinner – on your own
Tuesday, March 22, 2016, Morning  Moderator: Murat Kacira
“Lighting for Growing Crops in Controlled Environments”

7:00 – 8:00 am  Breakfast
7:55 – 8:00 am  Welcome & Announcements
8:00 – 8:45 am  Greenhouse Structures & Glazing
  Dr. Murat Kacira, University of Arizona
8:45 – 9:30 am  Plant Lighting Basics and Applications
  Dr. Ricardo Hernandez, North Carolina State University
9:30 – 9:45 am  Discussion of Previous Lectures - Question & Answers
9:45 – 10:00 am 3, 5-minute Exhibitor presentations
10:00 – 10:15 am Break, Visit your Exhibitors
10:15 – 11:00 am Lighting Talk TBA
  Dr. Ricardo Hernandez, North Carolina State University
11:00 – 11:45 am Business of Lightings
  Chris Higgins, Hort Americas
11:45 – 12:00 pm Discussion - Question & Answers
12:00 – 1:00 pm  Lunch

Tuesday, March 22, 2016, Afternoon  Moderator: Gene Giacomelli
“Alternative Systems and Crops for Controlled Environments”
1:00 – 1:45 pm  Intro to Aquaponics
  TBA
1:45 – 2:30 pm  An Engineers View of Recirculating Aquaculture and Aquaponic Systems
  Dr. James Ebeling
2:30 – 3:00 pm  Discussion of Previous Lectures - Question & Answers
3:00 – 3:15 pm  Coffee Break
3:15 – 4:00 pm  Greenhouse Berries
  TBA
4:00 – 4:45 pm  Growing Crops in High Tunnels
  TBA
4:45 – 5:15 pm  Discussion of Previous Lectures - Question & Answers

Dinner – On Your Own
Wednesday, March 23, 2016, Morning

“Indoor Growing Session”

Moderator: Gene Giacomelli

7:00 – 8:00 am Breakfast
7:55 – 8:00 am Welcome & Announcements
8:00 – 8:45 am Controlling the Environment of the Plants
   Jamie Byron, Grove Labs
8:45 – 9:30 am Building an Ag Startup Company
   Gabe Blanchet, Grove Labs
9:30 – 10:00 am Discussion of Previous Lectures - Question & Answers
10:00 – 10:15 am Break Visit your Exhibitors
10:15 – 11:00 am Experiences in Indoor Growing
   Dr. Ricardo Hernandez, North Carolina State University
11:00 – 11:45 am Alternate Indoor Growing Talk
   TBA
11:45 – 12:00 pm Discussion of Previous Lectures - Question & Answers
12:00 – 1:00 pm Lunch

Wednesday, March 23, 2016, Afternoon

“Experiences in Production, Marketing and Business Establishment”

Moderator: Merle Jensen

1:00 – 1:45 pm Food Safety
   Kurt Nolte, University of Arizona
1:45 – 2:30 pm Day In The Life Of A Grower
   TBA
2:30 – 3:00 pm Discussion of Previous Lectures - Question & Answers
3:00 – 3:15 pm Break, Visit your Exhibitors
3:15 – 4:00 pm Succeeding as a Small Greenhouse Grower
   TBA
4:00 – 4:45 pm Hi Tech- Hi Touch: From Farm Markets to Supermarkets
   Merle Jensen, Greenhouse Vegetable Consultants, LLC
4:45 – 5:15 pm Discussion of Previous Lectures - Question & Answers

Dinner – On Your Own
Thursday, March 24, 2016
Hands-on Workshops at CEAC

7:00 – 8:00 am  Breakfast
8:00 am  Bus Leaves to CEAC for Workshops (Same Workshops Repeated 3 Times)

8:30 – 10:15 am  **ROUND ONE WORKSHOPS** [select one to attend in each of 3 rounds]

- Basics of Fertigation: Steve Poe, Neal Barto
- Tomato Crop Maintenance Using High Wire Systems: Pat Rorabaugh
- Growing Lettuce and Herbs in Floating System: TBA
- Sensors and Controls Basics: Murat Kacira,
- Strawberry Greenhouse: Mark Kroggel

10:15 – 12:00 pm  **ROUND TWO WORKSHOPS** [select one workshop from list above]

12:00 – 1:00 pm  Lunch at CEAC

1:00 – 2:45 pm  **ROUND THREE WORKSHOPS** [select one workshop from list above]

2:45 – 3:45 pm  Extra Round – [select any/all]

- Applications of LED Lighting: TBA
- Veggie Box: Kroggel, Students
- Informal Meetings/Discussions for previous Workshops [attend any/all]
  Tomato Crop Production: Pat Rorabaugh
  Lettuce/Herb Production: TBA

3:45 pm  Visit to Aquaponics Greenhouse
Dr. Kevin Fitzsimmons

5:30 pm  Return to Westward Look
Dinner – On Own

Friday, March 27, 2015

7:00 – 8:00 am  Breakfast

**OPTIONAL COMMERCIAL GREENHOUSE TOUR (Fee Required)**

TBA

8:00 am  Leave Hotel for Commercial Greenhouse Tour
Lunch  Box lunch provided on return route
2:30 pm  Estimated return to Hotel

**End of Official Short Course Schedule**