

# 2019 CT Food Science & Technology CDE

Friday, May 17th at UConn, Contest begins at 9 a.m.

Superintendent: Karolyn Jordan

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In this CDE, you complete a variety of learning activities related to food science and technology in the food industry. The competition covers product development and presentation, along with food safety issues and identification. Participants use their sensory skills to evaluate and solve problems while applying sound principles in a decision making process.

1. Each school is allowed four contestants, with all four designated as “official contestants.”
2. Food products used in this event may contain or come in contact with potential allergens. **The advisor/coach must report any and all contestant allergies to the superintendent of the contest at least 2 weeks prior to the contest. In this case, on or before April 27.** The UConn Coordinator and CDE Superintendent will make all reasonable efforts to accommodate students with food allergies. Any contestant who comes to the contest without disclosing food allergies 2 weeks prior will forfeit any contest components as deemed necessary by the UConn Coordinator or CDE Superintendent.
3. Teams and/or individuals will not be permitted to use cell phones or other electronic media.
4. Materials provided by the student: Two #2 pencils, clipboards, and a non-programmable calculator. Clipboards **MUST** be clean and unmarked. They will be examined prior to the contest. Colored pencils and rulers are allowable. Paper will be provided for the team event.

## **General Knowledge Exam**

Multiple choice, 50 questions. Questions will be taken from the National resource text: Principles of Food Science, 4th edition, 2015, Janet Ward and Larry Ward, The Goodheart-Willcox Company, INC.

**2019 Chapters - 4, 11, 16, 18**

## **Problem Solving/Math Practicum**

Each participant will solve five mathematical calculations based on common food science themes.

Questions may include nutrition calculations, ingredient quantity, cost benefit and analysis, estimation of cost/margin of goods sold, conversions, processing, conditions, etc.

## **Aroma Id**

10 Flavors or aromas will be available for identification by each participant.

Apple	Coconut	Maple	Raspberry
Banana	Coffee	Molasses	Sage
Basil	Garlic	Nutmeg	Smoke (liquid)
Butter	Ginger	Onion	Strawberry
Cherry	Grape	Orange	Vanilla
Chocolate	Lemon	Oregano	Watermelon
Cinnamon	Licorice (anise)	Peach	Wintergreen
Clove	Lime	Peppermint	

## **Triangle Test**

Up to four triangle tests will be presented to each participant. In each triangle test, three samples are presented. Participants are expected to identify the different samples through flavor, aroma, visual cues and/or textual differences.

### ***Customer Inquiry***

Each participant will be given five scenarios representing general consumer inquiries. Participants must determine if the consumer inquiry reflects a quality or safety issue and determine if it is a biological, chemical or physical concern or hazard.

### ***Product Specification Compliance***

Each student will be given sample sets (actual products and/or data sets) and will be responsible for determining compliance with the provided specification requirements. This may include, but is not limited to, determining if the product(s) is within the net weight standards, product sizing requirements, pH, color analysis, viscosity measurement, fill level tolerances, packaging specification compliance, etc. Participants will be asked questions regarding potential compliance violations presented within the sample set.

### ***Food Safety/Sanitation***

Each participant will be given photos of potential food safety and/or sanitation problems. A numbered list of problems will also be provided at the beginning of this practicum segment. The list will contain more potential problems than the number of photographs. The list will contain such standards as good manufacturing practices (GMP) and hazard analysis critical control point analysis (HACCP). Students will identify the type of problem in the photo by recording the answer from the answer list.

### ***Team Activity***

Students will be given a list of ingredients with nutritional information and will have to develop a nutritional profile (make a nutritional label) for the product. They will also create an educational panel and front panel for their product. Student will need calculators and will be calculating grams, etc. for their products. Team will defend their choices in a written form. One answer sheet will be turned in per team along with the package labels.

## **SCORING**

<b>Section</b>	<b>Individual Points</b>	<b>Total Team Points</b>
General Knowledge Exam	100	400
Problem Solving/Math	25	100
Aroma ID	20	80
Triangle Test	20	80
Customer Inquiry	25	100
Product Spec. Compliance	25	100
Food Safety/Sanitation	25	100
Team Activity		200
<b>TOTAL POSSIBLE POINTS</b>	<b>240</b>	<b>1,160</b>