


2017 Career Development Event Rules and Regulations

Food Science

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|---|--------------------------|---|
| | |  |
| Maximum Number of Team Members | 4 | |
| Number of Team Members Scored | 4 | |
| Scantron | Multi Purpose B - 228576 | |
| Committee: Craig Canterbury Kristen Friend Annie Erwin Jason Miihlbach | | |

Purpose

The food science and technology career development event is designed to promote learning activities in food science and technology related to the food industry and to assist students in developing practical knowledge of principles used in a team decision-making process.

Objectives

- a. To encourage FFA members to gain an awareness of career and professional opportunities in the field of food science and technology.
- b. To provide FFA members with the opportunity to experience group participation and leadership responsibilities in a competitive food science and technology program.
- c. To help FFA members develop technical competence and personal initiative in a food science and technology occupation.

Event Rules

- a. Team make-up- The team will consist of four members with all four members' scores being totaled for the team score.

Event Format

- A. The food science and technology career development event will consist of three activities: an objective test, a food safety and quality practicum and a sensory evaluation practicum.
- B. All team members will participate in all of the activities.
- C. Allergy Information: Food products used in this event may contain or come in contact with potential allergens. Advisors must submit a special needs request form for participants with any allergies with certification. The event committee will make all reasonable efforts to accommodate students with food allergies.
- D. Each participant must provide:
 - i. A clipboard that is clean and free of notes.
 - ii. Two sharpened No. 2 pencils.
 - iii. Electronic calculator- Calculators used in this event should be non-programmable and non-graphing. Calculators should have only basic functions such as addition, subtraction, multiplication, division, equals, percent, square root, +/- key. No other calculators are allowed to be used during the event including cell phones.

2. Individual Activities

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- a. Objective Test
The objective questions administered during the food science and technology examination will be designed to determine each team member's understanding of the basic principles of food science and technology. The test will be primarily based on the list of references at the end of this chapter.
 - ii. Team members will work individually to answer each of the 50 questions. Each person will have 60 minutes to complete the examination. Each question will be worth 3 points, for a total of 150 points.
 - iii. Middle school team members will work individually to answer each of the 25 questions. Each person will have 60 minutes to complete the examination. Each question will be worth 3 point, for a total of 75 points.
3. Practicums—Each team member will complete all parts of both practicums.
 - a. Food Safety and Quality Practicum- 50 points
 - i. 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. (25 points)
 - ii. Food Safety/Sanitation- Each participant will be given ten situations (e.g., photos, videos, written scenarios, live demonstrations or a combination). A numbered list of problems will be provided at the beginning of this practicum segment. The list will contain concepts such as good manufacturing practices (GMP), sanitation, food handling/storage and other pre-requisite programs. Participants will identify if there is a violation presented in the situation. If participants decide that there is a violation, they will indicate the number of the violation from the list of problems provided. (25 points)
4. Sensory Evaluation Practicum- 50 points
 - a. Triangle Tests- Three different triangle tests will be conducted. Participants are expected to identify the different samples through flavor, aroma, visual cues and/or textural differences. Answers will be given on the sheet provided. No list will be provided for this segment of the practicum. Each test is worth 5 points. (15 points)
 - b. Aromas- Each participant will be asked to identify four different aromas from vials provided at each station and record the answer on the sheet provided. A list of potential aromas will be provided to each person. Each sample is worth 5 points. (20 points)

Aromas

| | | | | |
|-----------|----------------|------------|-------------|------------------|
| Cinnamon | Lime | Onion | Clove | Coconut |
| Chocolate | Orange | Butter | Nutmeg | Lilac |
| Maple | Vanilla | Menthol | Ginger | Raspberry |
| Oregano | Smoke (liquid) | Grape | Molasses | Strawberry |
| Basil | Cherry | Garlic | Wintergreen | Licorice (anise) |
| Lemon | Pine | Peppermint | Banana | |

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| VI. Scoring | | | |
|---|--------------|----------------|--------------|
| Section | Time Allowed | Section Points | Total Points |
| Individual Activities | | | |
| Objective Test | 60 minutes | | 150 |
| Food Safety and Quality Practicum | | | 50 |
| Customer Inquiry | | 25 | |
| Food Safety/Sanitation | | 25 | |
| Sensory Evaluation | | | 35 |
| Triangle Tests | | 15 | |
| Aromas | | 20 | |
| Total Individual Points | | | 235 |
| Individual Points (150 pts x 4 members) | | | 940 |

Tiebreakers

- A. Team: Should a tie occur in the overall team placing, the tie will be broken by the highest number of total points earned from the objective test (adding all four team member scores) will break the tie. If a second tiebreaker is needed, the total points earned by the team in the food safety and quality practicum will be used.
- B. Individual: To identify the high individual for this event in case of a tie, the highest objective test score will be used as the first tiebreaker, followed by the highest food safety and quality practicum score as the second tiebreaker.

References

This list of references is not intended to be all-inclusive. Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation.

National FFA Core Catalog—CDE Questions and Answers <http://shop.ffa.org/cde-qas-c1413.aspx>

Mehas and Rodgers, 5th Edition, 2006. Kay Yockey Mehas and Sharon Lesley Rodgers, Glencoe/McGraw, New York.

Food Science and Safety, 2nd Edition, 2004, George J. Seperich, Pearson Publishers

Principles of Food Sanitation, 5th Edition, 2006, Norman G. Marriott and Robert B. Gravani, Springer Science + Business Media, Inc.

Institute of Food Technology website, <http://www.ift.org>

USDA Food Safety and Inspection Service website, <http://www.fsis.usda.gov>

Penn State Kitchen Chemistry: Experiments, resources and materials for educators and students, <http://foodscience.psu.edu/public/kitchen-chemistry>

Food Safety Education, http://www.fsis.usda.gov/food_safety_education/for_kids_&_teens/

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Partnership for Food Safety Education, <http://www.fightbac.org>

FoodSafety.gov, <http://www.foodsafety.gov>

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Food Science and Technology CDE- Customer Inquiry Scorecard

Name: _____ Participant #: _____

| | | Points Possible | Points Earned |
|---|------------------|-----------------|---------------|
| Scenario # 1 This issue represented in this scenario is a: | (Check only one) | 2 | |
| Food Quality Issue | _____ | | |
| Food Safety Issue | _____ | | |
| Is the concern or hazard primarily: | (Check only one) | 3 | |
| Biological | _____ | | |
| Chemical | _____ | | |
| Physical | _____ | | |
| Scenario # 2 This issue represented in this scenario is a: | (Check only one) | 2 | |
| Food Quality Issue | _____ | | |
| Food Safety Issue | _____ | | |
| Is the concern or hazard primarily: | (Check only one) | 3 | |
| Biological | _____ | | |
| Chemical | _____ | | |
| Physical | _____ | | |
| Scenario # 3 This issue represented in this scenario is a: | (Check only one) | 2 | |
| Food Quality Issue | _____ | | |
| Food Safety Issue | _____ | | |
| Is the concern or hazard primarily: | (Check only one) | 3 | |
| Biological | _____ | | |
| Chemical | _____ | | |
| Physical | _____ | | |
| Scenario # 4 This issue represented in this scenario is a: | (Check only one) | 2 | |
| Food Quality Issue | _____ | | |
| Food Safety Issue | _____ | | |
| Is the concern or hazard primarily: | (Check only one) | 3 | |
| Biological | _____ | | |
| Chemical | _____ | | |
| Physical | _____ | | |
| Scenario # 5 This issue represented in this scenario is a: | (Check only one) | 2 | |
| Food Quality Issue | _____ | | |
| Food Safety Issue | _____ | | |
| Is the concern or hazard primarily: (Check only one) | (Check only one) | 3 | |
| Biological | _____ | | |
| Chemical | _____ | | |
| Physical | _____ | | |
| TOTAL | | 25 | |

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Food Science and Technology CDE
Food Safety and Sanitation Scorecard

Name: _____ Participant #: _____

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|---|
| Situation # 1 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 1a) Yes _____ 1b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 1c) _____ |
| Situation # 2 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 2a) Yes _____ 2b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 2c) _____ |
| Situation # 3 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 3a) Yes _____ 3b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 3c) _____ |
| Situation # 4 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 4a) Yes _____ 4b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 4c) _____ |
| Situation # 5 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 5a) Yes _____ 5b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 5c) _____ |
| Situation # 6 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 6a) Yes _____ 6b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 6c) _____ |
| Situation # 7 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 7a) Yes _____ 7b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 7c) _____ |
| Situation # 8 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 8a) Yes _____ 8b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 8c) _____ |
| Situation # 9 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 9a) Yes _____ 9b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 9c) _____ |
| Situation # 10 – The situation depicts a violation of GMP, sanitation and/or food handling/storage (1 point). 10a) Yes _____ 10b) No _____ If yes, list the item number that would best apply from the list of guidelines provided (1.5 points): 10c) _____ |
| TOTAL: _____ / 25 Possible |