

**Curriculum for Agricultural Science Education (CASE)
– Food Science and Safety**
2019-2020 STEM Scale-Up Program

Grade Levels: 9-12, available in school

Website: <https://www.case4learning.org/index.php/curriculum/case-courses/food-science-and-safety>

Video Link: <https://www.youtube.com/watch?v=8MK0bPAq3Tw&feature=youtu.be>

Award Provides:

- Two-week professional development held during the summer.
- Lodging, most meals and materials for professional development.

Additional Cost(s) to Awardee In 2019-2020:

- Travel expenses to and from professional development

Approximate Sustainability Cost After Award Period:

- Approximately \$450 to operate the program annually after the initial award year.

Program Summary:

Food Science and Safety is a specialization course in the CASE Program of Study. Students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the food science and safety industry, allowing students to build content knowledge and technical skills. Students will investigate areas of food science including food safety, food chemistry, food processing, food product development, and marketing.

Food Science and Safety includes the following units of study.

- Introduction to Food Science
- Chemistry of Food
- Safety of Our Food
- Food Processing Preservation and Packaging
- Food Health and Security
- Preference and Product Availability
- Food Product Development

CASE utilizes science inquiry for lesson foundation and concepts are taught using activity-, project- and problem-base instructional strategies. In addition to the curriculum aspect of CASE, the project ensures quality teaching by providing extensive professional development for teachers that leads to certification.

Requirements to Implement the Program:

- Attend two weeks of CASE Curriculum Institute (dates and locations will vary).
- Travel expenses to and from the Curriculum Institute which are outside the award.
- Secure equipment and supplies to teach CASE course above the award allocation.
- Commit to adopt and teach CASE curriculum upon return from institute (2019-2020 school year).

Professional Development:

Duration: 9 day workshop

Date(s): June or July 2020 – Course scheduled will be released in October 2019

Location: Central Iowa