

AGSC 316 Internship

Course Syllabus: On-Farm Produce Safety

Course Title: AGSC 316 – Internship: On-Farm Produce Safety

Semester Offered: Summer or Fall

Credits: 2

Location: Desert Farming Initiative (DFI) – Nevada Agricultural Experiment Station, 920 Valley Road

Contact: dfi@cabnr.unr.edu 775-682-9783

Academic Advisor: _____

DFI Advisor: _____

Course Description:

The purpose of this On-Farm Produce Safety internship is to provide undergraduate students with specialized professional training and applied knowledge in a brief time frame. It is designed to offer students in the fields of agriculture, nutrition and food sciences with practical skills in preventing food-borne illnesses related to fresh produce at time when this academic area is progressing significantly. Included are required readings, a series of on-farm trainings, and implementation of practices throughout the DFI supply chain (in the field, at farmers markets/farm stands and during wholesale produce delivery).

This training is also available to members of the public and DFI employees as a certificate program on a volunteer basis.

Student Learning Outcomes:

AGSC 316 learning outcomes include:

1. Articulate and demonstrate improvement in professional etiquette - exhibit courteous, considerate, professional and respectful conduct.
2. Demonstrate professionally relevant competencies and relationships in a professional setting.
3. Develop a professional portfolio that relates to other academic experiences including Core and within their major classes, personal awareness and growth, diversity, professionalism and industry engagement.
4. Combine critical thinking and analytical skills related to workplace issues.

DFI On-Farm Produce Safety learning outcomes include:

1. Understand the history, types and causes of food-borne illnesses as related to fresh produce and farming practices
2. Understand how federal produce safety rules are applied in practice, from small to large farm operations
3. Be able to describe and demonstrate the key elements of an on-farm food safety plan at various scales, including associated record-keeping and training

Course Credits and Registration:

2 credit units (approximately 90 hours total). This program is designed to be completed within one summer or fall semester, but can be extended under extenuating circumstances. Registration is completed via [MyNEVADA](#). There are no course pre-requisites.

Student Learning Assessment and Requirements

The grading basis of AGSC 316 is S/U (Satisfactory or Unsatisfactory) only. If all eight program elements (described below) are successfully completed, a Certificate of Completion will be issued by DFI and a 'Satisfactory' grade will be awarded.

Interns are responsible for arranging a work schedule with their DFI Advisor, reporting to work as assigned and on time, and contacting their DFI Advisor if they will be absent. They are responsible for completing their assignments in a professional manner. Interns must be motivated, have a good attitude, and be able to follow directions.

Physical labor is required for portions of this internship; any anticipated limitations should be discussed with DFI and Academic Advisors before the internship begins. Any student with a disability needing academic adjustments or accommodations is requested to speak with the Disability Resource Center (Pennington Student Achievement Center, Suite 230) as soon as possible to arrange for appropriate accommodations.

Students are responsible for abiding by University of Nevada Rules and Disciplinary Procedures for Members of the University Community (see UNR Rules and Procedures below). Willful damage, theft, or misappropriation of equipment or property will result in disciplinary sanctions as stated under the UCCSN code.

On-Farm Produce Safety Program Elements

1. Overview of produce safety

Watch:

- DFI short documentary, Produce Safety: Farm to Table in Northern Nevada
- Nevada Department of Agriculture short films for farm workers: True or False, Pathogens

Read:

- DFI Food Safety Plan and farmnevada.org/food-safety [overview provided by DFI faculty]
- Produce Safety Alliance binder: Module 1 Introduction to Produce Safety
- Good Agricultural Practices (GAP) overview on Nevada Department of Agriculture web site
- Comparison of GAP v. Food Safety Modernization Act (FSMA)
- Excerpt from 'Outbreak': pages 1-23, Appendix B and pages 259-260.
Lytton, Timothy D. 2019. Outbreak: Foodborne Illness and the Struggle for Food Safety. ISBN-13: 978-0-226-61168-6 [available from DFI Office]

2. Farm worker health, hygiene and safety

Do:

- DFI training on health and hygiene [conducted by DFI faculty based on procedures in the DFI Food Safety Plan]
- DFI training on pesticide safety in the work place [conducted by DFI faculty based on procedures in the DFI Food Safety Plan]

Watch:

- Nevada Department of Agriculture short films for farm workers: Health and Hygiene, Safety, Pesticides
- Washington State Tree Fruit Growers Association videos on hand washing and glove use [available on USB from DFI office]
- Pesticide Educational Resources PERC video on pesticide safety for ag workers:
https://www.youtube.com/watch?v=b_kQ9lu0fwY&feature=youtu.be

3. Pre-harvest risk assessment and co-management

Do:

- DFI training on pre-harvest risk management (based on procedures in the DFI Food Safety Plan, including an overview of co-management by DFI faculty)
- 5 acceptable pre-harvest risk assessments in the field under DFI farm management supervision
- Tour of DFI co-management practices with DFI faculty

Watch:

- Nevada Department of Agriculture short films for farm workers: Animal Intrusion

Read:

- Produce Safety Alliance binder: Module 4 Wildlife, Domesticated Animals and Land Use
- DFI Conservation Plan [available from DFI office]
- Community Alliance with Family Farmers (CAFF) publication – Farming with Food Safety and Conservation in Mind
- DFI Geese Management publication

4. Harvest practices and tools

Do:

- DFI training based on Applied Solutions to Produce Safety (NV Farms Conference session, February 2020) and on-the-job training regarding:
 - In-field health, hygiene and injury (reminders)
 - Crate and box handling during harvest
 - Tool handling and gloves during harvest
 - Transporting produce from field to Wash House (including review of work flow diagram in Part 1 of the DFI Food Safety Plan)
- 20 hours** harvest and tool management work under DFI farm management supervision

Watch:

- Nevada Department of Agriculture short films for farm workers: Tools

Read:

- Reducing Food Safety Risks during Harvest from Penn State Extension

5. Post-harvest handling

Do:

- DFI training on post-harvest handling – based on *Washing Produce* and *Wash House Cleaning* procedures in the Food Safety Plan
- 20 hours** wash/pack house work under DFI food safety coordinator supervision

Watch:

- Nevada Department of Agriculture short films for farm workers: Water, Cross Contamination

Read:

- Produce Safety Alliance binder: Module 5-2 Post-harvest Water and Module 6 Post-harvest Handling and Sanitation

6. Delivery, market and sampling practices

Do:

- 10 hours** of DFI delivery/market work and on-the-job training from DFI faculty, including traceability, safe delivery practices and safe food handling at market
- 1 DFI sampling event according to Washoe County Health District sampling permit requirements and guidance

Read:

- Food Safety at Farmer's Markets by the Farmers Market Coalition (read underlying study and link to the Washington State Farmers Market Toolkit, Chapter 9)

7. Large scale produce safety programs and research areas

Do:

- Visit large scale produce farm with DFI food safety coordinator; participate in company tour with Food Safety Manager.

Read:

- Food safety web site of large farm: <https://www.periandsons.com/farm-food-safety.php>
- Leafy Greens Marketing Association (LGMA) food safety practices
- Center for Produce Safety mission and latest research report

8. Journal and program performance assessments

Do:

- Keep a **weekly journal** including: a record of date/hours worked and tasks completed; a record of the date each written work and video requirement was completed; and a one-paragraph reflection on each written work and video.
- Submit **mid-semester evaluation** form to DFI Advisor, discuss results and turn in completed form to Academic Advisor. This element includes review of the journal to-date. See attached form.
- Submit **final evaluation** form to DFI Advisor, discuss results and turn in completed form to Academic Advisor. This element includes review of the completed journal. See attached form.

UNR Rules and Procedures

UNR Statement on Audio and Visual Recording "Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may be given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded."

Statement on Academic Dishonesty "The University Academic Standards Policy defines academic dishonesty, and mandates specific sanctions for violations. See the University Academic Standards policy: UAM 6,502."

Statement for Academic Success Services "Your student fees cover usage of the University Math Center (775) 784-4433, University Tutoring Center (775) 784-6801, and University Writing Center (775) 784-6030. These centers support your classroom learning; it is your responsibility to take advantage of their services. Keep in mind that seeking help outside of class is the sign of a responsible and successful student."

Statement on Equal Opportunity The University of Nevada, Reno is committed to providing a safe learning and work environment for all. If you believe you have experienced discrimination, sexual harassment, sexual assault, domestic/dating violence, or stalking, whether on or off campus, or need information related to immigration concerns, please contact the University's Equal Opportunity & Title IX office at 775-784-1547. Resources and interim measures are available to assist you. For more information, please visit: <https://www.unr.edu/equal-opportunity-title-ix>.

Mid-Semester Evaluation – AGSC 316 Internship: On-Farm Produce Safety

Date: _____

Student: _____

Academic Advisor: _____

DFI Advisor: _____

DFI's assessment of the intern's performance and progress will be used in discussions between the advisors and the student. This evaluation includes open discussion about how the experience with the internship is progressing – from the advisors' and intern's perspective. This is also viewed as an opportunity for DFI and UNR to get valuable feedback from the intern.

1. ATTENDANCE

- Regular
- Sporadic

- Welcomes constructive criticism
- Needs improvement in accepting constructive criticism

2. COMPETENCE

- Produces more than expected work
- Produces average amount of work

- Positive attitude
- Needs improvement in attitude

- Always prompt with assigned work
- Generally prompt with assigned work
- Often late with assigned work

4. JOURNAL

- Journal is up to date and thorough
- Journal is not satisfactory

- Work is complete
- Work frequently contains errors or is incomplete

5. MID-SEMESTER RATING

- Excellent
- Good/above average
- Average
- Below average
- Poor

- Quick to learn and apply new concepts
- Average learning and application of new concepts
- Needs improvement in applying new concepts

6. COMMENTS

3. ATTITUDE

- Good team worker
- Needs improvement in team work

(continued)

FINAL Evaluation – AGSC 316 Internship: On-Farm Produce Safety

Date: _____

Student: _____

Academic Advisor: _____

DFI Advisor: _____

This form includes a final assessment of the intern's performance. Both the DFI Advisor and Academic Advisor will conduct in-person exit interviews with each intern to seek out the intern's perspective of what has been learned and also to identify any strengths or weaknesses of the internship.

Overall performance rating:

The overall performance of the intern is rated as:

Excellent Good / above average Average Below average Poor

Final grade:

The intern's final grade is assigned based on full completion of the 8 elements of the internship, as described in the course syllabus.

Satisfactory Unsatisfactory

Comments:

Reasons for this rating and final grade are described below. Factors such as attendance, competence, attitude, progress, and initiative are considered. Areas of strengths and weaknesses are highlighted and recommendations for improvement provided.
