

COURSE SYLLABUS

PubH 7200 Section 104 Course # 88719

Cleaning and Sanitation for Food Facilities For Food Safety and Security

Credits: 1.0

Course meeting times:	May Term 2006
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I. Course Description

The course reviews the regulatory requirements for cleaning and sanitation across all food facilities and then provides an overview of the technologies and practices required for effectively developing a standard sanitation operating procedure. The course will examine this in both a standard food safety context and the new challenges afforded by intentional food contamination concerns through a combination of didactic lectures and laboratory practicum.

II. Learning Objectives

After completing this course, participants will be able to:

1. Identify the appropriate regulatory requirements with regard to cleaning and sanitation in food facilities.
2. Define the role of Standard Sanitation Operating Procedures (SSOP) in the context of overall Good Manufacturing Practices and Hazard Analysis of Critical Control Points (HACCP) plans.
3. Understand the technical aspects of the full range of available cleaners, sanitizers and application technologies, including their advantages and disadvantages.
4. Select the appropriate cleaners, sanitizers and overall application approaches ranging from three compartment sinks to dish machines to cleaning out of place (COP) to cleaning in place (CIP), and everything in between, across a range of soils and environments.
5. Develop an SSOP including the validation and testing plan to support the SSOP.

III. Methods of Instruction and Work Expectations

Reading assignments and lecture present the regulatory requirements and the basic and applied science of cleaning and sanitation as they pertain to food facilities and the resulting impact on food safety. The materials provided include basic and applied scientific articles, references and guidebooks that the students will be expected to learn how to utilize in assessing the cleaning and sanitation requirements of a particular food facility. Through individual and group exercises they will learn how to then develop appropriate cleaning and sanitation procedures that are compliant with relevant regulations. Wet laboratory practicum will enable the students to translate this theoretical framework into application and therefore to understand the challenges and concerns of developing and implementing cleaning and sanitation procedures that result in an appropriate safeguard for food safety without inadvertently creating future problems. In addition to the primary instructors, other professionals will provide their expertise on cleaning and sanitation, including plant operations and pest control.

Upon completion of the course, students will develop critical skills in the evaluation of facilities, examination of the regulatory requirements and development of appropriate cleaning and sanitation procedures. These skills are important to food facility staff, supervisors and managers as well as federal, state and local regulatory and enforcement staff who are engaged in the practical protection of the food system.

Course grading will be determined by:

- Class participation in group exercises and discussions (100 points - 25% of grade)
- Completion of individual assignments during class/evenings (100 points - 25% of grade)
- A written assignment due within five days of the completion of the course (200 points - 50% of grade).

IV. Grading

1. **Grading Criteria:** This course is offered A/F or S/N

- A/F letter grade will be determined by total effort as follows:

A = 90-100%	(4.0) Represents achievement that is outstanding relative to the level necessary to meet course requirements.
A- =	
B+ =	
B = 80-90%	(3.0) Represents achievement that is significantly above the level necessary to meet course requirements.
B- =	
C+ =	
C = 70-80%	(2.0) Represents achievement that meets the minimum course requirements.
C- =	
D+ =	
D = 60-70%	(1.0) Achievement below minimum course expectations but sufficient to be awarded credit.
D- =	
F = below 60%	Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

- S/N option must complete all assignments to a C- level (70%):

S	Achievement that is satisfactory will be expected to complete all assignments and receive a minimum of 70% to receive a passing score (achievement required for an S is at the discretion of the instructor but may be no lower than a 70%).
F	Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

2. **Grading Option** - Students may change grading options during the initial registration period or during the first two days of the term. **The grading option may not be changed after the second day of class.**
3. **Course Incomplete** - An incomplete grade is permitted only in cases of extraordinary circumstances and following consultation with the instructor. In such cases an "I" grade will require a specific written agreement between the instructor and the student specifying the time and manner in which the student will complete the course requirements. Extension for completion of the work will not exceed one year.
4. **Scholastic Dishonesty** - This course follows the University of Minnesota Board of Regents' policy on student conduct and scholastic dishonesty which can be found at:
<http://www1.umn.edu/regents/policies/academic/StudentConductCode.pdf>

A grade of "F" or "N" for the entire course will be assigned for scholastic dishonesty as defined in the policy and will be reported to the Office of Student Judicial Affairs
<http://www.sja.umn.edu/>

Plagiarism is an important element of this policy. It is defined as the presentation of another's writing or ideas as your own. Serious, intentional plagiarism will result in an "F" or "N" grade for this course. For more information on this policy and for a helpful discussion of preventing plagiarism, please consult University policies and procedures regarding academic integrity:
<http://cisw.cla.umn.edu/plagiarism/uofmpolicies.html>

Students are urged to be careful that they properly attribute and cite others' work in their own writing. For guidelines for correctly citing sources, go to <http://tutorial.lib.umn.edu/>. In addition, original work is expected in this course. It is unacceptable to hand in assignments for this course for which you received credit in another course unless by prior agreement with the instructor. Building on a dissertation or final project is acceptable.

If you have any questions, consult the instructor.

V. Course Withdrawal

School of Public Health Students may withdraw from a course **through the second day** of the course without permission. No "W" will appear on the transcript. After the second day, students are required to do the following:

- The student must contact and notify their advisor and course instructor informing them of the decision to withdraw from the course.
- The student must send an email to the SPH Student Services Center (SSC). The email must provide the student name, ID#, course number, section number, semester, and year with

instructions to withdraw the student from the course, and acknowledgement that the instructor and advisor have been contacted.

- The advisor and instructor must email the SSC acknowledging the student is canceling the course. All parties must be notified of the student's intent.
- The SSC will complete the process by withdrawing the student from the course after receiving all emails (student, advisor and instructor). A "W" will be placed and remain on the student transcript for the course.
- After discussion with their advisor and notification to the instructor, students may withdraw until the end of the second day of class. There is no appeal process.

VI. Disabilities

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the instructor and Disability Services at the beginning of the term. All discussions remain confidential. For further information contact the University of Minnesota Disability Services website at <http://ds.umn.edu/> or call 612-626-1333 (V/TTY).

VII. Course Text and Readings

All required materials will be provided as handouts and include, but are not limited to:

"Making the Right Choice - Cleaner and Sanitizer Selection"

Regulatory Reference Manual, selected portions of the CFR dealing with GMP's, SSOP's, HACCP and FIFRA

OSHA Chemical Safety guidelines

VIII. Course Outline/Weekly Schedule

Day 1	Welcome and Introduction Overview of the Training Materials Food Illness Outbreaks and The Role of Cleaning and Sanitation Introduction to Cleaning and Sanitation Regulatory Requirements -Understanding GMP's, HACCP and SSOP's -FIFRA: Product Selection and Labeling Exercise: Scenario/Label/Product Matching
Day 2	Soil Basics Cleaners: Science and Selection Sanitizers: Science and Selection Worker Safety: Taking Out Bugs, Not People Exercise: Titrations, Soil Identification and Other Real World Quick Tests
Day 3	Cleaning In Context: Developing a Plan For The Situation -Three compartment sink -Dish machines -Cleaning out of place -Cleaning in place -Environmental surfaces Intentional Contamination and Implications for Cleaning & Sanitation Exercise: Validation and Rapid Test Kits and Equipment
Day 4	Application Lab -Equipment Cleaning, Sanitation and Validation -Foamers, Thin Film Sprayers and Central Equipment

	Food Facilities From a Pest's Perspective Common Food Facility Equipment and The Challenges for Effective Cleaning and Sanitation Summary and Conclusion
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IX. Class Project

Legal Notices

Legal disclaimer: The instructor's course materials are published for educational purposes only. Course materials are not edited for legal use, the citations are not cite checked, and the cases are not Shepardized by the Institute for Food Laws & Regulation. Statutes, regulations and case law may be amended or change following a course presentation. In addition, the course materials and are intended only to provide general educational information and should be considered legal advice.

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