VIN 148 (VIN 14800) - Winery Sanitation

Date: September 3 - December 13, 2013  
Course Name: Winery Sanitation  
Course No.: VIN 148  
Instructor: Bénédicte Rhyne  
Office Hours: By appt, phone, e-mail

Semester: Fall 2013  
Room: Online  
Course Credit: 3 Hours  
E-mail: winectry@wildblue.net  
Phone: (830) 456-2653

Course Description: This is a course in the basic science and technology of winery sanitation. The course serves as an introduction to wine microbiology and covers all methods used for winery sanitation including premises, tanks, pumps, filters, oak barrels and sampling equipment, including but not limited to chemical agents, reagents, and thermal treatments leading to sterile bottling. Environmental issues and compliance are also addressed.

Prerequisites: VIN 146 or instructor permission

Next Course in Sequence: VIN 160 or VIN 246

Course Objectives: Through lectures, facilitated discussions, quizzes and written assignments the student will:

- Define cleaning, sanitation, and sterilization
- List and explain the side effects of poor sanitation control in relation to cost.
- List the regulatory agencies involved with winery sanitation and describe their function.
- Explain the winemaking process in regards to high risk points of contamination (critical control points)
- Explain how poor winemaking practices can lead to wine spoilage
- Complete a sanitation analysis procedure for a winery operation.
- Identify and describe the variety of organisms that can infect wine
- Demonstrate the ability to recognize symptoms in problem wines
- Describe the processes used to identify some of the basic spoilage organisms
- Demonstrate an understanding of the methods used to prevent organisms from infecting wine
- Identify the different types of cleaning compounds and their roles in detergents
- List and describe cleaning compounds used in winery operations
- Describe the benefits and restrictions of cleaners in winery operations.
- Describe the difference between cleaning, sanitation, and sterilization.
- Describe the benefits and restrictions of sanitizers used in winery operation.
- Describe the use and function of ozone in the winery
- List and describe standard sterilization materials.
• Describe the cleaning techniques for the most commonly used winery equipment.
• Demonstrate the protocols for cold-sterile bottling.
• Explain the effects of specific sanitizing compounds on winery equipment
• Demonstrate a knowledge of the use of specialized sanitation equipment
• Explain the process used to test for the effectiveness of a sanitation plan.
• Demonstrate a knowledge of the different regulatory agencies that control winery chemical use and waste disposal
• Demonstrate an understanding of MSDS sheets
• Explain OSHA regulations as they pertain to wineries
• Describe how to determine water quality
• Estimate water usage of previously visited winery.
• Explain waste water issues.
• Identify the different pests that can affect wine quality
• Explain pest control strategy.
• Acquire sanitation plan from the previously visited winery
• Critically evaluate real life sanitation issues
• Develop winery and equipment cleaning protocol.
• Explain proper chemical storage.
• Explain the safety aspects of winery chemical usage

Required Materials

2. Cleaning, Sanitizing, and Pest Control in Food Processing, Storage and Service Areas published by University of Georgia College of Agriculture and Environmental Sciences Cooperative Extension Service.

The two documents are posted on the online course site. There is no need to purchase.

Outline of Content and Proposed Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and Importance of Cleaning and Sanitation in the Winery</td>
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<tr>
<td>2</td>
<td>Winery Pests and Wine Spoilage Organisms</td>
</tr>
<tr>
<td>3</td>
<td>Overview of Winemaking Process and Evaluating Risks Submit Winery Visit Site by Tuesday 9/17 11:59 PM Mid-Term Exam 1 (through week 3 content) Available Wednesday 9/18 11:59 PM until Tuesday 9/24 11:59 PM Any 3 hour window. Most take 1 hour to complete.</td>
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<tr>
<td>4</td>
<td>Cleaning Compounds and Water Quality</td>
</tr>
<tr>
<td>5</td>
<td>Cleaning Compounds (continued) Water</td>
</tr>
<tr>
<td>6</td>
<td>Sanitizers</td>
</tr>
<tr>
<td>7</td>
<td>Winery Specific Issues In Cleaning And Sanitizing I</td>
</tr>
<tr>
<td>8</td>
<td>Winery Specific Issues In Cleaning And Sanitizing II</td>
</tr>
</tbody>
</table>
9 Sterile Bottling
"Sanitation Overview" written report Due by Tuesday 10/29 11:59 PM
Mid-Term Exam 2 (through week 9 content)
Available Wednesday 10/30 11:59 PM until Tuesday 11/5 11:59 PM
Any 3 hour window. Most take 1 hour to complete.

10 Cleaning Equipment
SOPs

11 Chemical Safety, Confined Space and Lock out/Tag out I
Regulations

12 Chemical Safety, Confined Space and Lock out/Tag out II
Regulations

13 Sanitary design
SOP Cleaning/Sanitizing DRAFT Procedure Due by Tuesday 11/26 11:59 PM
(Post to discussion board for week 13)

14 Water and Waste
Final Exam (comprehensive, emphasis on weeks 10-14)
Available Wednesday 12/3 11:59 PM until Tuesday 12/10 11:59 PM
Any 3 hour window. Most take 1 hour to complete.

15 Review
Open Discussion/Questions
SOP Cleaning/Sanitizing Procedure Due by Tuesday 12/10 11:59 PM

The instructor reserves the right to adjust the schedule as necessary.

Instructional Methods

This is an online course with a synchronous component. An online course site hosted by Missouri State University is used to provide announcements, lecture notes, supplemental printed and web-based materials, and assignments to the students. It also serves as a central point for interaction/communication between instructor and students.

The live class meeting will take place once a week on Wednesday from 8 to 9 p.m. Central Time via the Centra web-based conference system. It is an opportunity for the instructor to go over weekly topic highlights and for students to interact with the instructor and fellow students through questions and discussions.

Course Assignments

Course assignments (details follow) include:
1. Weekly readings (online lectures/presentations and print based materials)
2. Discussion Board: Posting and responding to weekly discussion questions
3. Three exams (2 midterms, one comprehensive final)
4. Two written assignments based on observations at winery site and class material:
   a. Sanitation Overview: Process Flow Chart with Sanitation Hazards and Controls
   b. Cleaning and Sanitation SOP (Standard Operating Procedure)
**Weekly Reading Assignments:** Online lectures/presentations and web/print-based materials will be posted on the online course site. Students should view the prerecorded weekly lecture video and complete the weekly reading assignments before each live class meeting.

**Discussion Board Postings:** Weekly discussion questions to be answered individually by each student; additionally, each student should respond or comment to at least two other students’ answers by designated deadline.

**Exams:** There will be two mid-term exams and a final exam. The final exam will be cumulative but with an emphasis on the third part of the term. The exams will be posted on the online course site with instructions.

**Written Assignments:** All written assignments will be typed, saved electronically, and submitted to the instructor via assignment links on the online course site. Spelling and grammar are extremely important in professional writing and papers will be scored accordingly. Photographs should be used in low resolution, or compressed to keep file size manageable. Saving as a pdf file is encouraged for this reason.

**Winery Sanitation Projects (“Sanitation Overview” and “SOP”):** Students will complete a winery sanitation project for this course. There are two parts to the project. The first part involves observing, surveying and practicing sanitation operations in a winery for at least 8 hours. The second part of the project is to prepare two reports to be submitted to the instructor based on your on-site experience, 1) a “Sanitation Overview” report and 2) an “SOP” cleaning and sanitation standard operating procedure. Detail instruction of this class project can be found on the online course site.

The **“Sanitation Overview”: Process Flow Chart with Sanitation Hazards and Controls** is to be presented in the format of a report of the current winery operations and sanitation state to your “boss”. At minimum the student should prepare a process flow diagram showing the general winery operations and comment on sanitation risks encountered at various steps along with current procedures for preventing or controlling contamination or adulteration. A list of the types of cleaning and sanitizing chemicals used at the facility, usage rates, suppliers, observed or anecdotal efficacy (that is, how well does the winery think they work), and any safety concerns is required. Additional documentation on current chemical, water, and other resource issues along with any recommendations for improvement or change is ideal. Comments on compliance with current regulations (especially safety issues) are encouraged.

The **“SOP” Cleaning and Sanitation Standard Operating Procedure and Report** is to be written using any standard SOP format and cover all the basics of an SOP as learned in the reading materials. The SOP should be written with a specific piece of equipment or cooperage (ie a carboy, a keg, or a barrel) in mind, and using the available materials and chemicals in the facility. Your mentor must approve of the SOP and you must follow your own instructions and perform the procedure as written. Your Report will include your approved SOP and your own evaluation of the efficacy based on your experience in trying to follow it, along with recommendations for improvement from yourself or your fellow students.
**Live class participation:** Weekly live Centra sessions offer great interaction between students and the instructor. The instructor will make every attempt to engage all students in discussion of the weekly subject matter. Since this is the only opportunity for the students to interact with the instructor directly, participation is required. Please inform the instructor in advance if you cannot attend the Centra session. Students who miss a class meeting are required to view the live class recording as soon as possible.

**Expectations and Instructor Feedback**

Students should participate in the weekly virtual class meeting. It is also the students’ responsibility to check the online course site on a regular basis, be aware of the required activities and assignments, and adhere to the deadlines. This will ensure a successful learning experience.

The instructor will make the best effort to respond to student questions and complete assignment/exam grading on a timely manner.

**Late Material**

Late assignments will be given 0%. The instructor reserves the right under extreme cases to make exceptions to this policy.

**Grading**

Grading is on a simple point system as follows:

- 90 – 100% = A
- 80 – 89.9% = B
- 70 – 79.9% = C
- 60 – 69.9% = D
- Below 60% = F

The percentage weight of student performance will be:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Live Class Attendance</td>
<td>10%</td>
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<tr>
<td>Discussion Board</td>
<td>10%</td>
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<tr>
<td>Test and Quizzes</td>
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<tr>
<td>Mid-term Exam 1</td>
<td>15%</td>
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<tr>
<td>Mid-term Exam 2</td>
<td>15%</td>
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<tr>
<td>Final</td>
<td>15%</td>
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<tr>
<td>Winery Sanitation Project Reports</td>
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</tr>
<tr>
<td>Sanitation Overview</td>
<td>20%</td>
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<tr>
<td>Cleaning/Sanitation SOP</td>
<td>15%</td>
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Total 100%

Incomplete grades are not given in this class. Should it become necessary to withdraw, it is the student’s responsibility to do so according to the guidelines in the Missouri State – West Plains student handbook.
Students with Disabilities

Kent State University recognizes its responsibility for creating an institutional climate in which students with disabilities can succeed. In accordance with University Policy 3342-3-01.3, if you have a documented disability, you may request accommodations to obtain equal access and to promote your learning in this class. Please note, you must first verify your eligibility for accommodations through Student Accessibility Services. Please contact Amanda Dolan, Coordinator of Academic Services, at Kent State University at Ashtabula (440-964-4304) regarding your request. After your eligibility for accommodations is determined, you will be given a letter which, when presented to instructors, will help us know best how to assist you.

Academic Honesty

Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get undeserved credit. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. It is the University's policy that cheating or plagiarism result in receiving a failing grade (0 points) for the work or course. Repeat offenses may result in dismissal from the University.

Enrollment and Official Registration

Per University Policy, students have the responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule in Flashfast (located in the “Student Tools” tab in Flashline) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, it is your responsibility to correct the error. Students who are not officially registered for a course by published University deadlines should not be attending classes and will not receive credit or a grade for the course.

<table>
<thead>
<tr>
<th>Important Registration Dates for Fall 2013 VIN 14800</th>
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<tbody>
<tr>
<td>Session</td>
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<tr>
<td>Full Term</td>
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<tr>
<td>Flexibly Scheduled Courses (Open Learning sections)</td>
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<tr>
<td>Percentage of Tuition Credit</td>
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<tr>
<td>100% Tuition Credit</td>
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<tr>
<td>80% Tuition Credit</td>
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<td>65% Tuition Credit</td>
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<tr>
<td>60% Tuition Credit</td>
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<td>0% Tuition Credit</td>
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