Las Positas College
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Course Outline for VWT 42

SPRING WINERY OPERATIONS

Effective: Spring 2018

I. CATALOG DESCRIPTION:
VWT 42 — SPRING WINERY OPERATIONS — 3.00 units

This course has a strong emphasis on the practical applications of winery operations. Students will be involved in the on-going maintenance of wines produced from the annual LPC Campus Hill Vineyard harvest. Student's practical experience covers winery operations for the spring season including equipment operation and safety, the handling and storage of new wines, barrel and tank monitoring, sensory and laboratory analysis, the planning, managing and implementation of bottling including blending trials, fining and filtering, label design and compliance, winery sanitation and record keeping. Students under the age of 21 must have a declared major in either viticulture and/or enology to participate in any tasting activities as stated in California State Assembly Bill 1989

2.00 Units Lecture 1.00 Units Lab

Strongly Recommended
VWT 20 - Introduction to Enology
with a minimum grade of C

Grading Methods:
Letter Grade

Discipline:
- Agriculture Production

	MIN
Lecture Hours:	36.00
Lab Hours:	54.00
Total Hours:	90.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

Before entering this course, it is strongly recommended that the student should be able to:

A. VWT20

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

1. Identify the multiple applications of basic winery chemicals
2. List safe laboratory practices in detail
3. Describe the practices and procedures for winery safety and sanitation
4. Outline routine wine analysis practices and procedures, including the required analysis equipment
5. Discuss the basic procedural standards of red and white wine production
6. Define appropriate wine sensory analysis procedures
7. Recall the on-going maintenance of wines
8. Explain the cause and effect of filtering, fining, and clarification of wines
9. Apply required bottling procedures that insure wine stability
10. Develop routine, seasonal winery operations
11. Explain barrel and tank maintenance procedures
12. Review the specifics of proper wine storage
13. Specify the standard winery equipment and the required upkeep, maintenance, and repair procedures
14. Exhibit proper winery record keeping

V. CONTENT:
A. Review of basic wine chemistry
   1. pH
   2. Acidity
   3. Free and total SO_2
B. Winery Chemicals

1. Used for winery sanitation
2. Used for wine stability

C. Winery Laboratory Safety
1. Laboratory protocols

D. Winery sanitation and safety

E. Review of analytical methods
1. pH
2. TA
3. Free and total SO_2
4. Volatile acidity

F. Review of basic wine production
1. Wine production from vineyard to bottle

G. Sensory evaluation of wine
1. Review organoleptic methods

H. On-going maintenance of wines from previous vintages
1. Monitoring stability
2. Assessing bottle readiness

I. Filtering, fining, clarification practices
1. Filter options
2. Fining materials
3. Settling practices

J. Bottling practices and procedures
1. Bottling line introduction
2. Peventative maintenance of bottling line
3. Processes in the bottling line
    a. Sparging
    b. Filling
    c. Corking
    d. Capsuling
    e. Labeling

K. Routine cellar practices and operations
1. Barreled wine monitoring
2. Moving wine

L. Barrel and tank maintenance procedures
1. Barrel and tank cleaning
2. Materials, equipment and chemicals used in sanitizing tanks and barrels

M. Wine storage
1. Storage options:
    a. Bottle
    b. Tank
    c. Barrel
    d. Concrete
    e. Sizes
    f. Hazards

N. Winery equipment operations, maintenance and repair
1. Safe start-up, operation and shut down
2. Equipment safety protocols

O. Record keeping
1. Reporting
2. Compliance

VI. METHODS OF INSTRUCTION:

A. **Discussion** -
B. **Audio-visual Activity** - Media presentations
C. **Lab** - hands-on training put into action
D. **Lecture** -
E. **Observation and Demonstration** - of practices and procedures discussed
F. **Guest Lecturers** - local industry professionals
G. **Observation and Demonstration** - hands-on experiential learning with instructional equipment
H. **Field Trips** - to local wineries

VII. TYPICAL ASSIGNMENTS:

A. Read chapter 5 in your textbook
B. Write a 2-4 page essay on the topic of "malolactic culture: yeast or bacteria?"
C. Participation in field trips at specified field and industry locations
1. local wineries
2. local grape and wine production facilities

D. Apply learned operational procedures with industry standard equipment on seasonally available materials

VIII. EVALUATION:

A. **Methods**

1. Exams/Tests
2. Quizzes
3. Papers
4. Projects
5. Field Trips
6. Group Projects
7. Home Work
8. Lab Activities
9. Final Performance

B. **Frequency**

1. At least two exams/tests/quizzes per semester
2. At least one written paper (approximately 2-4 pages) per semester
3. An industry related group project per semester
4. At least one scheduled field trip off campus
5. Weekly homework
6. Lab participation monitored by instructor

7. Final presentation of group project

IX. TYPICAL TEXTS:

1. Miller, E. (2011). *Vintners Apprentice; An Insiders Guide to the Art and Craft of Winemaking* (1st ed.). : Quarry Books.
2. Bird, D. (2011). *Understanding Winery Technology* (1st ed.). : Wine Appreciation Guild.
3. Dr. Yair Margalit (2012). *Concepts in Wine Chemistry* (3rd ed.). : The Wine Appreciation Guild.
4. "Wines and Vines." Wine Communications Group Inc. Pub 2013.
5. "Wine Business Monthly." Wine Communications Group Inc. Pub 2013.
6. "Practical Winery and Vineyard Journal." Wine Communications Group Inc. Pub 2013.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Chemical goggles