Reedley College AgNR Department

Timothy E. Smith Ph.D. Plant Science 18

**Plant Science 18: Introduction to Enology**

**Course Information**

**Catalog Description**

Introduction to the science of wine making. Topics covered include microbiology, fermentation, sanitation, wine chemistry and stabilization.

**Units and Hours**

3 units; 2 hours lecture - MW 9:00 a.m. to 9:50 a.m.

3 hours lab’ W 12:00 p.m. to 2:50 p.m.

Final: May 20, 2020– 9:00-11:50 p.m.

**Textbook**

Principles and Practices of Winemaking. **Boulton**, R.B., **Singleton**, V.L., **Bisson**, L.F., **Kunkee**, R.E. 2014. University of California, Davis.

**Assignments and Grading**

Three major tests will be given that correlate to the assigned readings and course lecture notes. Quizzes will be given weekly on the discussed subject matter.

Point Distribution

Lecture:

Midterm 250

Final Exam 250

Laboratory: Participation 500

**1000**

90% = A 80% = B 70% = C 60% = D Less = F

**Important Dates:** Last Day to Drop Class with Refund: January 24, 2020

Last Day to Drop w/o Transcript Record: January 31, 2020

Last Day to Change CR/NR: February 21, 2020

Last Day to Drop w/o Letter Grade Assigned: March 13, 2020

**Academic Dishonesty**: Plagiarism and cheating are serious offenses and may be punished by failure on exam, paper or project; failure in course; and or expulsion from the University. For more information refer to the "Academic Dishonesty" policy in the College Catalog.

**Need for Assistance:** If you have any condition, such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it, or which will require academic accommodations, please notify me as soon as possible.

**Posting of Grades:** Final grades will not be posted. If you wish to have your final grade sent to you, please bring a self-addressed, stamped envelope to the final exam.

**Attendance**

Attendance of lectures and labs is required and roll will be taken at each meeting. A "tardy" is considered an absence unless the student contacts and explains the incident. Students must make prior arrangements with the instructor to be excused from lectures and labs, make-up of missed tests and labs are permitted only with excused absences.

**Office Hours - Ag 4**

Monday 1:00 Wednesday 9:00 Friday 9:00 – Virtual-Online

**Lecture Schedule**

Week Topic Reading Assignment

1 Introduction

Wine Quality

2 Wine Production

3 Grape Composition

4 Grape Processing I and II

5 Red Wine Processing

6 White Wine Processing

7 Alcohol Fermentation

8 Problem Fermentations

9 Problem Fermentations

10 **Review and Midterm**

11 Malolactic Fermentation

12 Malolactic Fermentation

13 Post Fermentation

14 Microbial Stability

15 Wine Adjustment and Blending

16. Wine Sensory

17 Flavor and Aroma

18 **Final Exam**

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| **COURSE OUTCOMES** |
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| Upon completion of this course, students will be able to: |

1. Practice and recognize winery safety.

2. Calculate fermentation nitrogen balances, sugar chaptalization, acid adjustment, and sulfur dioxide additions at various stages of development.

3. Recognize sources of off flavors in wine and describe methods to mitigate these conditions at harvest to wine stabilization.

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| **COURSE OBJECTIVES** |
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| In the process of completing this course, students will: |

1. Understand the chemical, physical and biological properties and processes in wine making.

2. Become knowledgeable on wine styles, types and vocabulary.

3. Be familiar with wine making equipment, materials and supplies.

4. Operate winery equipment and testing equipment.

5. Know industry practices for sanitation, fermentation, clarification, stabilization and storage.