

Plant and Soil Science 1311
The Science of Wine
Syllabus, Fall 2014
Section 001 and 170

Instructors:

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Office Hours: By appointment

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By appointment

Meeting Time and Place: MWF 1:00- 1:50pm Plant Science Room 108

Course Description:

Introduction to the history of grape growing and winemaking, and application of biology, chemistry, and technology to modern grape and wine production

Course Purpose:

This course will enable the student to display introductory knowledge of the history of grape and wine production. Students will gain knowledge of the biology and chemistry underlying grapevine growth and development; the process of fermentation of grapes into wine, the chemical and organoleptic properties of wine, and the application of technology to modern methods for grape and wine production.

Learning Objectives

1. Students will demonstrate an understanding of the key historical events that have influenced grape and wine production.
2. Students will demonstrate an understanding of the biological and chemical processes affecting grapevine growth, fruit characteristics, and wine production practices.
3. Students will demonstrate an understanding of the technology employed in modern grape and wine production.

Expected Learning Outcomes

1. Students will demonstrate applied and theoretical knowledge within the fields of Viticulture and Enology.
2. Students will demonstrate technical and professional skills needed to function within a complex and global society.

Methods for Assessing Expected Learning Outcomes

Learning outcomes will be assessed by:

1. Closed-book exams

Grading Procedures

Exams and Projects:

| | <u>Points Possible</u> |
|--------------------------|------------------------|
| Exams (3 @ 100 points) | 300 |
| Comprehensive Final Exam | <u>100</u> |
| TOTAL | 400 |

Grading Standards:

| <u>Grade</u> | <u>Final Avg. Needed</u> |
|--------------|--------------------------|
| A | 90 to 100% |
| B | 80 to 89% |
| C | 70 to 79% |
| D | 60 to 69% |
| F | < 60% |

Required Text: *The Science of Wine: From Vine to Glass*. Second Edition. 2014, Jamie Goode

Optional: *Windows on the World Complete Wine Course*. 2009, Kevin Zraly

Required Content Online (Blackboard)

Recorded lectures
Supplemental reading and websites
Assignments
Class Discussion

General Information

Instructional Methods

Live Sections: Instructional methods include face-to-face lectures, readings, and classroom discussion

Viewing Your Grades:

You can access your grades on the Blackboard menu. Grades will be posted after the due date and after all assignments have been graded.

E-mail:

- Instructors will respond to your e-mail messages within 24 hours on weekdays, and within 48 hours on weekend.

Technology Requirements:

- Internet access. A high-speed connection is recommended for Blackboard. If you do not have Internet access at home, you can probably find it at public libraries.
- Blackboard

Technical Assistance:

- For general technical assistance, call 806-742-HELP.
- For assistance with Blackboard, visit the Blackboard Student Support website at <http://www.tlhc.ttu.edu/content/asp/blackboard/SupportStudent.asp>

Technical Skill Requirements:

You are expected to have a working knowledge of Microsoft Word, e-mail, using Internet search engines, downloading plug-ins and applications such as Flash and Java. You are also expected to submit assignments through the Blackboard Assignment Tool.

Class Policies

Learning is better accomplished when students attend class regularly, are prepared to learn, and become actively involved in discussions and learning activities. Regular class attendance is usually strongly related to performance in the class. Because discussion will be a part of this course, it is important for you to attend not just for your own benefit but also to facilitate the learning environment for your peers.

Students are expected to assist in maintaining a classroom environment conducive to learning. Therefore, in order to assure an opportunity to gain from time spent in class please turn off all electronic devices, do not eat in class, make offensive remarks, read newspapers, talk to neighbors, sleep, or engage in any other forms of distraction. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class.

Make-up Exams/Quizzes

No make-up exams or quizzes will be given. If a scheduling conflict arises and you need to miss an exam, you must contact the instructor at least 24 hours before the exam is given. At that time the instructor will determine if the student will be excused from the exam date, and when the exam may be taken. If a student does not take an exam, and has not made prior arrangements with the instructor, the student will receive a zero for the exam.

Extra Credit Policy:

There is no extra credit offered in this course.

Late Assignment Policy:

Assignments are due on the dates indicated in the course outline. Late assignments will not receive credit.

University Policies

All students enrolled in PSS 4310 are expected to adhere to high standards of conduct and integrity as outlined in the Texas Tech University Code of Student Conduct found at <http://www.depts.ttu.edu/studentaffairs/>. The instructor will refer to the Code and follow the directives therein should any question of student conduct or integrity arise during the semester. Any cheating on exams will result in immediate dismissal from the course with a failing grade.

Texas Tech University treats plagiarism as a very serious offense. Sanctions for plagiarism could range from dismissal from the university to failing the assignment on which the plagiarism occurred. Plagiarism, cheating and related issues are addressed by university Operating Procedure 34.12.

Student Disability Services

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405. <http://www.depts.ttu.edu/students/sds/>

| Date | Tentative Course Schedule, Fall 2014 |
|-----------------|--|
| 25-Aug | Course Introduction |
| 27-Aug | Science as it Relates to Grapes and Wine |
| 29-Aug | Grapevine Morphology – Parts of the Vine and Terminology |
| 1-Sept | HOLIDAY – Labor Day |
| 3-Sept | Grapevine Physiology – How are Grapes Made? |
| 5-Sept | Wine Grape Varieties – Ancient to Genetically Modified |
| 8-Sept | Winemaking as an academic subject |
| 10-Sept | History of Winemaking Overview |
| 12-Sept | Wine Geography, Terroir and Appellation Systems |
| 15-Sept | Wine Grape Production Systems |
| 17-Sept | Training, Pruning, and Canopy Management |
| 19-Sept | Fruit Ripening and Harvest |
| 22-Sept | EXAM 1 |
| 24-Sept | Vineyard Mechanization |
| 26-Sept | Environmental Monitoring and Remote Sensing |
| 29-Sept | Precision Viticulture |
| 1-Oct | Irrigation Technology |
| 3-Oct | The Phylloxera Epidemic and Advent of Rootstocks |
| 6-Oct | Integrated Pest Management |
| 8-Oct | Organic and Biodynamic Production |
| 10-Oct | Sustainable Viticulture |
| 13-Oct | EXAM 2 |
| 15-Oct | Wine Microorganisms and Fermentation |
| 17-Oct | Naturalness of Wine |
| 20-Oct | Making Table Wine |
| 22-Oct | Sulfur Dioxide, oxygen, reduction |
| 24-Oct | Sulfur Dioxide, oxygen, reduction |
| 27-Oct | Government Regulations and labeling |
| 29-Oct | Wines of Europe-1 |
| 31-Oct | Wines of Europe- 2 |
| 3-Nov | New World Wines -1 |
| 5-Nov | New World Wines- 2 |
| 7-Nov | Exam 3 |
| 10-Nov | Storage and aging |
| 12-Nov | Barrels/ Oak |
| 14-Nov | Wine Additives |
| 17-Nov | Advancements in Technology |
| 19-Nov | Advancements in Packaging and Closures |
| 21-Nov | Wine and Health |
| 24-Nov | Flavor Perception- taste and smell |
| 26-Nov | HOLIDAY - Thanksgiving |
| 28-Nov | HOLIDAY - Thanksgiving |
| 1-Dec | Sensory Evaluation of Wine |
| 3-Dec | Review |
| 5-10-Dec | FINALS WEEK |