WINE PRODUCTION 1: FERMENTATION

Texas Tech University

Department of Plant and Soil Sciences

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Emails will be returned within 24hrs Mon-Fri and 48hrs Sat and Sun.
Meeting Times: Live Online Discussion times TBA
Class Location: On-line asynchronous via Blackboard
Contact Information for Technical Support: IT Help Central 806.742. HELP
Credit: 4 Continuing Education Units

COURSE DESCRIPTION

The course will provide an overview of wine production focusing on pre-fermentation processes and fermentation management. Emphasis will be placed on improved winemaking through quality control and management. This course in designed for students and individuals either interested in or currently working in grape wine production.

COURSE REQUIREMENTS:

Technology: Internet Access: Blackboard, Adobe Acrobat Reader, and Microsoft Office
Experimental Winemaking Kit: May be purchased through DeFalcos Home Wine and Beer Supply for approximately $130.00. Full details of kit and experiments may be found on the Blackboard web site in the section titled *Experimental Fermentations.*

READING MATERIALS

Supplemental reading materials are posted within each unit of the course. Many of the articles are sourced from industry trade journals. In order to have access to these materials you must have an active subscription to the journals. The journals most often referenced are listed below.

Subscriptions highly recommended for additional resources:

Wine Business Monthly subscription to online trade journal and print monthly magazine ($39/yr)
http://www.winebusiness.com/wbm/
Wine Business Monthly also provides a free daily email service providing the latest news in the wine industry.
https://secure.winebusiness.com/subscriptions/dailyNews.cfm?ref=dn

Membership access to US Scientific Journal***

American Society of Enology and Viticulture (ASEV) membership for on-line access to the American Journal of Enology and Viticulture (AJEV) and discounts to annual symposium and conference. See www.asev.org. The journal is on-line and available for searches at http://ajevonline.org/. There is a modest charge per article if you are not a member of the society.

***The journal is a great source for the most current industry research. Many of the research papers presented in the journal are often summarized in the trade journals listed above as well as in the power point presentations in the course units.

NO REQUIRED TEXT

However, background reading of lecture topics is recommended using one or more of the following texts.

Suggested Texts/ Readings

Principles and Practices of Winemaking. 1995. Boulton R.B., V. L. Singleton, L.F. Bisson, and R.E. Kunkee. Chapman and Hall, New York.

Wine Analysis and Production. Zoecklein, B.W., K.C.Fueglesang, B.H. Gump, F. S. Nury. 1995. Chapman and Hall, New York.

Winemaking Problems Solved. Butzke, C.E., et al. 2010. Woodhead Publishing Limited, Pennsylvania.

Wine Microbiology. Fugelsang, K. C., C.G. Edwards. 2007. Springer Science and Business Media, LLC, New York.

Handbook of Enology Vol 1. Ribereau-Gayon, P., D. Dubourdieu, B. Doneche, and A. Lonvaud. 2000. John Wiley & Sons, LTD, England.

Monitoring the winemaking process from grapes to wine techniques and concepts. Iland, P., N Bruer, A. Ewart, A. Markides, and J. Sitters. 2004. Patrick Iland Wine Promotions PTY LTD, Australia.
Chemical analysis of grapes and wine: techniques and concepts. Iland, P., N. Bruer, G. Edwards, S.Caloghris, and E. Wilkes. 2013. Patrick Iland Wine Promotions PTY LTD, Australia.

Microbilogical analysis of grapes and wine: techniques and concepts. Iland, P., G. Paul, M. Grinbergs, L. Schidtke, and A. Soden. 2007. Patrick Iland Wine Promotions PTY LTD, Australia.

See Blackboard course web site for additional books and descriptions.

EXPECTED LEARNING OUTCOMES

Upon successful completion of this course students should be able to:

1. Understand the overall process of grape wine production.
2. Understand basics of wine chemistry and wine microbiology.
3. Determine appropriate time to harvest grapes depending on grape variety and wine style.
4. Determine appropriate fermentation protocol for desired wine style and grape condition.
5. Understand the impact of various fermentation treatments on the outcome of the final wine.
6. Determine processing operations by comparing available technology.
7. Design and implement standard operating procedures for wine production provided varying circumstances and available technology.
8. Access and analyze current industry research and literature.
9. Identify resources available to assist in problem solving during wine production.

COURSE STRUCTURE AND REQUIREMENTS

***Online Content*:** This course will be administered via distance and will consist of mostly asynchronous sessions. Lectures will be pre-recorded and uploaded in Blackboard. Lectures will be available online for the duration of the course. The live synchronous sessions will be held at predetermined dates used for discussion, application, and problem based learning. Dates of live discussions will be determined once class has begun.

***Fermentation Experiment*:** This course will have a lab component consisting of small scale experimental fermentations that may be carried out at home. Arrangements have been made with a Texas based store for the purchase of winemaking kits. Instructions will be posted on Blackboard.

ASSESSMENT OF LEARNING OUTCOMES

Participation: Participation includes attendance of, and contribution to discussion during live sessions via Lync. Blackboard also features a discussion board tool where students and instructor may interact. Please use this space to post questions and start class discussions. Please plan to check the Blackboard site regularly for announcements and updates. If you will be unable to log-on to the site for an extended period, please contact the instructor to make arrangements.

***Quizzes**:* Online.

***Experimental Fermentation Labs and Reports**:* Instructions for the experimental fermentation lab assignment may be found on the Blackboard website.

MONITORING PROGRESS

Although grades are not administered in this course, all activities must be completed to earn CEUs and continue with the Certificate Program.

BLACKBOARD

All lectures will be prerecorded and posted to Blackboard and will remain on the site for the duration of the course.

SUBMITTING ASSIGNMENTS

All assignments must be submitted online via Blackboard.

CONSIDERATIONS FOR LIVE ONLINE CLASSES

While attending the live online sessions, please be aware of the appropriateness of your surroundings and attire.

STUDENTS WITH DISABILITIES

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as possible to make necessary arrangements. Students must present appropriate verification from Student Disability Services during the instructor's office hours. Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services office in 335 West Hall or call 806-742-2405.

SYLLABUS SUBJECT TO CHANGE

This syllabus and schedule are subject to change. Please check email and BB regularly for updates.

TENTATIVE SCHEDULE:

Unit	Topic	Activities
	Orientation/ Introduction to Class	
	Chemistry Review	On-line tutorial
1	Wine Quality- What is it?	1 on-line presentation, reading and quiz
2	Viticulture Overview for Winemakers	2 on-line presentation, reading and quiz
3	Maturity Assessment and Harvest Operations	2 on-line presentation, reading and quiz
4	Juice and Must Additions	5 on-line presentations, readings and quiz, 1 assignment
5	Red Winemaking	2 on-line presentations, reading and quiz
6	Phenolics	2 online presentations, reading and quiz
7	White Winemaking	1 on-line presentation, readings and quiz
8	Yeast	1 on-line presentations, reading and quiz
9	Fermentation Management	2 on-line presentations, reading and quiz
10	Malolactic Fermentation	2 on-line presentations, reading and quiz
11	Special Topics	