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Grape and Wine Education for the 21st Century

VIN 214 - Spring Viticulture Technology

Date: April 3 – June 21, 2017

VESTA Course No.: VIN 214 (VIN.2142.01)

Course Name: Spring Viticulture Technology

Instructor: Joseph Geller

Office Hours: By appointment via phone or e-mail

Semester: Spring 2017

Course Credit: 2 Hours

Room: Online

Phone:

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Course Description

This course is designed to provide students initiated in the field of viticulture practical experience in spring vineyard operations. Students are required to partner with an approved vineyard to participate in the required field experience portion of the course which will serve as work experience for those seeking employment in commercial viticulture.

Prerequisites: VIN 111 or permission

Next Course in Sequence: VIN 215

Course Objectives

Through lectures, facilitated discussions, tests, and written assignments the student who successfully completes this course will be able to:

- Conduct pre-growing season vineyard assessment to check: status of vines, quality and type of pruning, vine training, disease incidence, trellis type and condition, vineyard floor status/weed management
- Collect a petiole sample to assess nutritional needs
- Develop and implement a vine summer fertility plan, including timing, quantities, materials, and application methods for specific environmental conditions
- Identify and describe major fungal diseases in a given location
- Identify major insect pests in a given location
- Identify major weed pests in a given location
- Adjust existing management strategies for identified pests and diseases
- Adjust a given spray schedule to accomplish the goals of a stated pest management program
- List and demonstrate the steps used in sprayer calibration
- Demonstrate proper cluster thinning
- Demonstrate proper shoot thinning and positioning
- Demonstrate proper leaf removal
- List and describe the characteristics of canopy ideotype

Text and Supplemental Materials

There is one required textbook for this course.

1. *Effective Vineyard Spraying*. Landers, Andrew.
Access the online version of the book at <http://www.effectivespraying.com>. \$55.00

There are also recommended textbooks/publications for your reference:

1. *Wine Grape Production Guide for Eastern North America*. 2008. Wolf, T. K. Natural Resource, Agriculture & Engineering Service (NRAES) Cooperative Extension. ISBN: 13-978-1-933395-12-8. \$90.00
2. *General Viticulture*. 1974. Winkler, A.J., J.A. Cook, W. M. Kliever, and L.A. Lider. University of California Press. ISBN: 978-0520025912. Available used at Amazon.com.
3. *Midwest Small Fruit and Grape Spray Guide*. Bordelon, B., R. Foster, and M. Ellis, Eds. Available at: https://ag.purdue.edu/hla/Hort/Pages/sfg_sprayguide.aspx
4. *Spray Guide for Commercial Vineyards (Virginia)*. Pfeiffer, D.G., A.B. Baudoin, C. Bergh, and M. Nita. 2014. Available at: <http://www.virginiafruit.ento.vt.edu/SprayGuide/GrapeSprays.html>
5. *Bunch Grape Spray Guide (Southern U.S.)*. Nita, M., T. Sutton, H. Burrack, W. Mitchen, D. Lockwood, B. Bellinger, and P. Guillebeau. 2014. P. Brannen and P. Smith, Eds. Available at: <http://www.smallfruits.org/SmallFruitsRegGuide/Guides/2012/BunchGrapeSprayGuide2012.pdf>
6. *Pest Management Guide for Washington State*. Moyer, M., Ed. Available at: <https://pubs.wsu.edu/ItemDetail.aspx?ProductID=15504>. \$5.00
7. *A Pocket Guide for Grape IPM Scouting of Grapes in North Central and Eastern U.S.* Isaacs, R., A. Schilder, T. Zabadal, and T. Weigle. 2011. Available at: http://shop.msu.edu/product_p/bulletin-e2889.htm. \$20.00

Instructional Format

This is an online course with a synchronous component. An online course site (Learning Management System) is provided by the host institution to provide announcements, lectures, notes, supplemental printed and web-based materials, and assignments to the students. It also serves as a central point for interaction/communication between the instructor and the students.

The live class meeting will take place once a week on **Thursday from 6:00 to 7:00 p.m. Central Time** via the Saba web-based conferencing 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.

Practicum

There is a required 32-hour practicum component to this course. Each student is required to identify a vineyard and mentor that would be willing to allow the student to put into practice the theory and skills learned in class. After identifying the mentor, the student should complete the [Field Practicum Site Form](#) (available on the online course site) and fax the form to the VESTA office by the second Friday after the semester starts. Upon receipt of the form, the VESTA office will send a packet of information to the mentor explaining the field practicum, the skill sets to be completed by the student, and the mentor's role in the field experience.

The practicum hours should be completed within the semester. If it is not possible due to regional differences, the student should inform the instructor in advance and work out a schedule for completing the practicum hours. The practicum is completed when the VESTA office receives a summary practicum evaluation from the mentor.

Proposed Topics and Schedule

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

WEEK	DATES	TOPICS
1	04/03 - 04/09	Introduction: Syllabus and Course Logistics Grapevine Phenology
2	04/10 - 04/16	Winter Frost and Chilling Injury: How Do You Adjust?
3	04/17 - 04/23	Pruning
4	04/24 - 04/30	Vine Planting and Establishment
5	05/01 - 05/07	Spring Vineyard Assessment (Soil Testing and Fertilization Strategies) Midterm Exam
6	05/08 - 05/12	Early Season Disease Control
7	05/15 - 05/21	Early Season Insect Control
8	05/22 – 05/28	Vineyard Floor Management: Cover Crops, Weeds and Herbicides
9	05/29 – 06/04	Pesticides, Spray Schedules, IPM and Resistance, Pesticide Safety
10	06/05 – 06/11	Spraying and Calibration, Sprayer Mechanics and Equipment
11	06/12 – 06/18	Early season canopy management
12	06/19 – 06/21	Review and Wrap Up Complete Practicum Requirements Final Project Due

Course Assignments

There will be weekly presentations and reading assignments, weekly discussion questions, instructor-posted research questions, a midterm exam, and a final project. Students are also required to keep a detailed online journal of tasks completed during the field practicum portion of the course.

Weekly Presentations and Reading Assignments: Lecture presentations and web/print-based materials will be posted on the online course site. Students should view the weekly presentation and complete the reading assignments **before** the live class meeting.

Weekly Online Discussion Questions: Students will be asked to post question(s) relating to the weekly topics after completing the lecture and reading assignments by **noon** on the day of the live class meeting. The instructor will address these questions during the live class meeting. After the meeting, students should post a response to their own question(s) and at least two classmate’s posts no later than Sunday following the live class meeting.

Instructor-posted Research Questions: A minimum of 2 questions will be posted for you to research and answer through the semester. The goal is for you to acquire in-depth understanding of a topic. Detailed information will be posted on the online course site.

Midterm Exam: There will be a Midterm Exam during Week 5. Students will take the exam online through the course site.

Final Project: This is a project which the students will work on through the semester. Students will be asked to choose a vineyard site/climate and describe the environmental and soil characteristics. This will be used to develop a detailed spray and fertilizer recommendation to be included in the final project. Detailed instruction will be provided on the online course site.

Field Practicum and Journal: The field practicum is an important part of the course. It is crucial that students identify a practicum site as early as possible (no later than the second week of the course). The *Practicum Skill Set* is a list of tasks to be completed by the student during the field practicum portion of the course. These tasks have been designed to provide students with exposure to skills that will be required for successful employment in the field of commercial grape production. To monitor the success of the field practicum portion of the course students will be asked to keep an online journal, detailing the student's experience. Details on format and required entries will be provided on the online course site.

Expectations and Instructor Feedback

With the online course format, students are expected to participate and be prepared to interact in the live class meetings. Students also need to check the online course site for class materials and communications regularly, be aware of the required activities and assignments, and adhere to the deadlines listed in the course schedule. This will ensure a successful learning experience.

The instructor will make every effort to respond to student questions and complete assignment/exam grading in a timely manner.

Live Class Meeting Participation

Participation in the live class meeting is crucial. It is the student's responsibility to notify the instructor in advance if he/she has to miss a class. Students who missed a class meeting are required to view the live class recording as soon as possible.

Late Assignments

Late assignments will not receive any credit. The instructor reserves the right, under extreme circumstances, to make exceptions to this policy.

Grading

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

Percentage Weight of Student Performance		
Activity	Percentage	Points
Weekly Online Discussions	10%	100*
Instructor-posted Research Questions	5%	50
Midterm Exam	10%	100
Final Project	15%	150
Field Practicum	40%	400
Practicum Journal	10%	100
Live Class Participation	10%	100**
Total	100 %	1000

* Weeks 2 to 11, 10 points per week.

** At least 10 participations for full points.

Incomplete grades are not given in this class. It is the students' responsibility to see that all graded assignments and exams reach the instructor in a timely fashion so grades can be issued.

Redlands Community College Institutional Policies

Withdrawing from the Course

Should it become necessary to withdraw, it is the student's responsibility to do so according to the guidelines in the Redlands Community College (RCC) *Student Handbook* that can be viewed and/or downloaded at: https://www.redlandsc.edu/files/Handbook_2014-2015.pdf

Attendance Policy

RCC believes that students must attend class in order to achieve the best learning results. In the case of VESTA online courses, attendance is defined as active participation in the form of attending synchronous class meetings (if applicable), completing reading/writing/testing assignments by assigned deadlines, and maintaining regular communication with course instructor via the online course site and communication tools designated by the instructor. For courses with a practicum/workshop component, students must participate and complete the number of hours of practical experience required. Instructors may assign attendance grade as part of course grade if they choose to do so.

Make-up Policy and Special Instructions

The exams can be made up only in the event of an excused absence where the instructor has prior knowledge of the absence. Allowance of make-up tests will be at the discretion of the instructor and will be taken on the date of the student's return to class.

Accommodations for Students with Special Needs

Redlands Community College is committed to making reasonable accommodations to assist individuals with disabilities. Students with documented disabilities that directly impact attendance or grades must register and request specific accommodations at the beginning of the semester. ADA and Accessibility information is available on the RCC website – click on this link: <https://www.redlandsc.edu/content/accessibility>