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Grape and Wine Education for the 21st Century

VIN 214 – Spring Viticulture Technology

Date: **March 29 – June 18, 2021**¹

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Semester: **Spring 2021**

Host: Missouri State University

Host Course No.: VIN214-SP21-20545-WP

Course Credit: 2 Hours

Delivery Format: Online

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.

¹**NOTE:** The start and end dates for this course are set to accommodate *spring vineyard operations* and do not follow the standard VESTA semester start/end dates.

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

Required Textbooks

Landers, A. (2016). *Effective Vineyard Spraying*. (2nd ed.). ISBN-13: 978-14-9518-844-2 Available online from <http://www.effectivespraying.com> or the vendor of your choice.

Dami, I., Bordelon, B., Ferree, D. C., Brown, M., Ellis, M. A., Williams, R. N., & Doohan, D. (2005). *Midwest Grape Production Guide*. Bulletin 919. Publisher: Ohio State University Extension.

This is a free download at: https://plantpathology.ca.uky.edu/files/mw_grape_productn_b919.pdf

Recommended Textbooks/Publications for Your Reference

1. Wolf, T. K. (2008). *Wine Grape Production Guide for Eastern North America*. Natural Resource, Agriculture & Engineering Service (NRAES) Cooperative Extension. ISBN-13: 978-19-3339-512-8
2. Winkler, A. J., Cook, J. A., Kliewer, W. M., & Lider, L. A. (1974). *General Viticulture*. University of California Press. ISBN: 978-05-2002-591-2.
3. Bordelon, B., Foster, R., & Ellis, M. (Eds.). (2017). *Midwest Fruit Pest Management Guide 2018*. Available at: https://ag.purdue.edu/hla/Hort/Pages/sfg_sprayguide.aspx
4. Brannen P., & Smith, P. (Eds.). (2017). *2017 Southeast Regional Bunch Grape Integrated Management Guide*. Available at: <http://www.smallfruits.org/assets/documents/ipm-guides/2017/2017BunchGrapeSprayGuide10-2-2017.pdf>
5. Washington State University Extension (2019). *2017 Pest Management Guide for Grapes in Washington*. Publication EB0762. Available at: <https://pubs.wsu.edu/ItemDetail.aspx?ProductID=13362&SeriesCode=&CategoryID=&Keyword=Pest%20management%20guide%20for%20grapes>
6. Ohio State University Extension (2004). *Midwest Small Fruit Pest Management Handbook*. Bulletin 861. Available at: <https://ag.purdue.edu/hla/Hort/Documents/Midwest%20Sm%20Fruit%20861%201-24-11.pdf>
7. Isaacs, R., Schilder, A., Zabadal, T., & Weigle, T. (2011). *A Pocket Guide for Grape IPM Scouting of Grapes in North Central and Eastern U.S.* 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 every **Wednesday from 7:00 to 8:00 p.m. Central Time** via the **Zoom** web conferencing system. Participation to the live class meetings is *required* and a participation grade is assigned. This 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. Students are expected to be prepared to ask questions and actively participate in the discussions.

The link to the Zoom virtual classroom will be posted at the top of each weekly module. Students will use the *same* virtual classroom for their live class meetings the entire semester. The sessions will take place on the dates listed in the above schedule.

It is the student's responsibility to notify the instructor in advance if he/she must miss a class. The recording of each live class will be available within 24-48 hours after each session for those who miss a live class.

Field 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 their mentor, the student should complete the online **Field Practicum Site Form** (link available on the course site and the VESTA website) no later than the end of the **second** week of the semester. 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 packet also includes the **Student Assessment Form (SAF)** for the mentor to fill out and send to the VESTA office at the conclusion of the practicum.

The field practicum is an important part of the course. It is crucial that students identify a practicum site as early as possible. 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.

The course schedule is designed to allow for regional differences. Therefore, students should complete the practicum hours within the specified semester timeframe. The practicum is completed when the VESTA office receives the student/trainee evaluation from the mentor.

Field Practicum Journal

In order to monitor the success of the field practicum portion of the course, students will keep an online journal, detailing their experiences. Journal entries will be posted using the **Journal Tool** provided on the online course site. Instructions are provided on the online course site.

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. Late postings will not be accepted, no points will be given for questions/answers posted after the due date and time.

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.

Course Schedule and Outline of Topics

Week — Date	Wednesday Live Class Dates	Topics
1 03/29 - 04/04	03/31	Introduction: Syllabus and Course Logistics Grapevine Phenology
2 04/05 - 04/11	04/07	Winter Frost and Chilling Injury: How Do You Adjust?
3 04/12 - 04/18	04/14	Pruning
4 04/19 - 04/25	04/21	Vine Planting and Establishment
5 04/26 - 05/02	04/28	Spring Vineyard Assessment (Soil Testing and Fertilization Strategies) Midterm Exam
6 05/03 - 05/09	05/05	Early Season Disease Control
7 05/10 - 05/16	05/12	Early Season Insect Control
8 05/17 - 05/23	05/19	Vineyard Floor Management: Cover Crops, Weeds, and Herbicides
9 05/24 - 05/30	05/26	Pesticides, Spray Schedules, IPM and Resistance, Pesticide Safety Final Project – Part 1 draft report due
10 05/31 - 06/06	06/02	Spraying and Calibration, Sprayer Mechanics, and Equipment
11 06/07 - 06/13	06/09	Early Season Canopy Management
12 06/14 - 06/18	06/16	Review and Course Wrap-up Complete all practicum requirements Complete Practicum Journal posts Completed Final Project due

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

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.

Late Assignments

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

Grading

Student grades will be determined based on their total points earned in the class. The table below outlines the total points possible and their percentage weight.

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 through 11, 10 points per week.

[†]At least 10 participations for full points.

Grade calculation: total points earned ÷ total points possible; then using the following scale to determine final letter grades:

90 – 100% = A	80 – 89.9% = B	70 – 79.9% = C	60 – 69.9% = D	Below 60% = F
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A grade of Incomplete is not given in this class. It is the students' responsibility to see that all graded assignments reach the instructor in a timely fashion so final grades can be issued.

Missouri State University Institutional Policies

Withdrawing from the Course

It is the students' responsibility to see that all requirements are completed within the semester timeframe so grades can be issued. Should it become necessary to withdraw, it is the student's responsibility to do so according to the university guidelines found at: <http://wp.missouristate.edu/recreg/withdrawl-procedures.htm>

**Students planning to withdraw from this course must also complete the VESTA Withdrawal/Change of Schedule form and submit it to the VESTA office.*

Online Student Academic and Student Support Resources

Missouri State University-West Plains provides a full-range academic and student support for online students. To learn more about specific academic and student support and how to access the resources, go to <http://online.wp.missouristate.edu/>

Attendance Policy

Missouri State University 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. MSU expects instructors to be reasonable in accommodating students whose absence from class resulted from: 1) participation in University-sanctioned activities and programs; 2) personal illness; or 3) family and/or other compelling circumstances. The University's attendance policy can be found at:

<http://www.missouristate.edu/registrar/catalog/attendan.html>

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.

Statement of Grading Policy

Faculty have the choice to utilize either the standard grade policy or the plus/minus grading option but are required to indicate their grading scale on their syllabus. The University's plus/minus grading system can be found at <http://wp.missouristate.edu/recreg/grade-policies.htm>

Title IX Policy

Missouri State University does not discriminate on the basis of sex in the education program or activity that it operates, including in admission and employment. Concerns regarding discrimination on the basis of sex, including sexual harassment, should be referred to Jill Patterson, Title IX Coordinator, Carrington 205, 901 S. National Ave., Springfield, MO 65897, 417-836-8506, or jillpatterson@missouristate.edu. MSU has adopted a grievance procedure policy for the prompt and equitable resolution of allegations of sexual discrimination, including sexual harassment. This policy is available at the [Title IX website](#). Individuals may report an allegation of sex discrimination, file a complaint of sexual discrimination, or file a formal complaint of sexual harassment by contacting MSU's Title IX Coordinator.

Statement of Nondiscrimination

Missouri State University is an equal opportunity/affirmative action institution, and maintains a grievance procedure available to any person who believes he or she has been discriminated against. At all times, it is your right to address inquiries or concerns about possible discrimination to the Office for Institutional Equity and Compliance, Park Central Office Building, 117 Park Central Square, Suite 111, 417-836-4252. Other types of concerns (i.e., concerns of an academic nature) should be discussed directly with your instructor and can also be brought to the attention of your instructor's Department Head. Please visit the OED website at: <http://www.missouristate.edu/equity/>

Academic Integrity Statement

Missouri State University is a community of scholars committed to developing educated persons who accept the responsibility to practice personal and academic integrity. You are responsible for knowing and following the university's student honor code, Student Academic Integrity Policies and Procedures, available at: <http://www.missouristate.edu/academicintegrity/> and also available at the Reserves Desk in Meyer Library. Any student participating in any form of academic dishonesty will be subject to sanctions as described in this policy.

Statement on Disability Accommodation

If you are a student with a disability and anticipate barriers related to this course, it is important to request accommodations and establish an accommodation plan with the University. Please contact the Disability Resource Center (DRC) at the [Disability Resource Center website](#), Meyer Library, Suite 111, 417-836-4192, to initiate the process to establish your accommodation plan. The DRC will work with you to establish your accommodation plan, or it may refer you to other appropriate resources based on the nature of your disability. In order to prepare an accommodation plan, the University usually requires that students provide documentation relating to their disability. Please be prepared to provide such documentation if requested. Once a University accommodation plan is established, you may notify the class instructor of approved accommodations. If you wish to utilize your accommodation plan, it is suggested that you do so in a timely manner, preferably within the first two weeks of class. Early notification to the instructor allows for full benefit of the accommodations identified in the plan. Instructors will not receive the accommodation plan until you provide that plan, and are not required to apply accommodations retroactively. For information about testing, contact the Director of the [Learning Diagnostic Clinic](#), (417) 836-4787, <http://psychology.missouristate.edu/ldc>.

Religious Accommodation

The University may provide a reasonable accommodation based on a person's sincerely held religious belief. In making this determination, the University reviews a variety of factors, including whether the accommodation would create an undue hardship. The accommodation request imposes responsibilities and obligations on both the individual requesting the accommodation and the University. Students who expect to miss classes, examinations, or other assignments as a consequence of their sincerely held religious belief shall be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Religious Accommodation Form to the instructor by the end of the third week of a full semester course or the end of the second week of a half semester course. For more information see:

http://www.missouristate.edu/policy/op1_02_1_religiousaccommodation.htm