



An Advanced Technological Education

## Resource Center

Grape and Wine Education for the 21<sup>st</sup> Century

### VIN 146 - Introduction to Enology

Date: **January 29 – May 10, 2024**

Instructor: Darren Michaels

Email: DarrenMichaels@missouristate.edu

Phone: (509) 774-8096

Office Hours: Virtual, by appointment, phone, email

Semester: **Spring 2024**

Host: Missouri State University

Course Number: 20733-SP24\_WP

Course Credit: 3 Hours

Delivery Format: Online

---

**Course Description:** VIN 146 is a 16-week course based on the fundamentals of the science and technology of winemaking. Introduction to Enology targets the home winemaker and those interested in exploring winemaking as a career, either as a cellar worker or as a new winery owner. During this course, students will build a basic understanding of winemaking, including making wine from a kit. This course is part of VESTA's viticulture and enology program with emphasis on the practical aspects of winemaking.

**Prerequisites:** None

**Next Course in Sequence:** VIN 148, VIN 160, or VIN 266

#### Course Objectives

The course will give the student an overview of the winemaking process and introduce the student to the wine industry and the language of winemaking. At the end of class, the student will demonstrate an understanding of:

- an introductory overview of wine making
- the characteristics between wine types and styles
- the applications of viticulture to winemaking
- winery sanitation and general winery practices
- the basic parameters of winery operations
- wine making equipment
- materials and supplies utilized in the wine making process and the wine cellar
- grape maturity testing and processing
- the basics of primary fermentation
- malolactic fermentation (MLF)
- wine clarification
- protein and tartrate wine stabilization
- wine maturation and aging
- wine packaging
- sensory evaluation of wine

## Required Textbook

Pambianchi, D. (2008). *Techniques in Home Winemaking: The Comprehensive Guide to Making Château-Style Wines*. Vehicule Press. ISBN 13: 978-15-5065-236-9.

Check with the MSU Bookstore or vendor of your choice for pricing and availability.

## Course Schedule and Outline of Topics

<b>Week — Dates</b>	<b>Tuesday Live Class Dates</b>	<b>Lecture Topics and Assignments</b>
<b>1</b> 01/29 - 02/04	01/30	Introduction to Enology
<b>2</b> 02/05 – 2/11	02/06	Background Information
<b>3</b> 02/12 – 2/18	02/13	Wine Composition and Types <b>Practicum Site Form due</b>
<b>4</b> 02/19 – 2/25	02/20	Sanitation <b>Week 4 Quiz</b>
<b>5</b> 02/26 – 03/03	02/27	An Overview of Winemaking <b>Start Winemaking Project</b>
<b>6</b> 03/04 – 03/10	03/05	Juice and Wine Analysis
<b>7</b> 03/11 – 03/17	03/12	Fermentation <b>Midterm Exam</b>
<b>8</b> 03/18 – 03/24	03/19	Spoilage
<b>9</b> 03/25 – 03/31	03/26	Tartrate Stabilization
<b>10</b> 04/01 – 04/07	04/02	Protein Stabilization <b>Week 10 Quiz</b>
<b>11</b> 04/08 – 04/14	04/09	Blending and Aging
<b>12</b> 04/15 – 04/21	04/16	Clarification and Bottling <b>Week 12 Quiz</b> <b>Mail your wine to instructor</b>
<b>13</b> 04/22 – 04/28	04/23	Winery Equipment
<b>14</b> 04/29 – 05/05	04/30	Calculations <b>Practicum Report due</b>
<b>15</b> 05/06 – 05/10	05/07	Student Wines Feedback and Wrap Up <b>Final Exam</b> <b>VESTA Course Evaluation</b>

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

## **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.

### **Live Class Meeting**

The live class meetings will take place every **Tuesday 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.

**Other Resources:** The weekly modules may contain additional resources such as websites and/or additional reading materials pertaining to the weekly topic. Please check this source of information on the online course site weekly.

### **Expectations and Instructor Feedback**

With the online course format, students are expected to participate in and be prepared for the live session discussions by completing the required assignments. During the first session, the instructor will cover the course requirements in detail. Students need to check the course site regularly to keep updated on communications, change in schedules, and adherence to deadlines. The instructor will make every effort to respond to student questions and complete assignment/exam grading in a timely manner.

## **Course Assignments**

Course assignments include weekly lectures, assigned readings, weekly discussion questions, quizzes, exams, a winemaking project with online winemaking journal, an 8-hour practicum at a participating winery, and other resources.

**Weekly Lectures:** The video lectures must be reviewed *before* the weekly live class meetings. Lectures may include a prerecorded video and/or a PowerPoint presentation.

**Assigned Readings:** Assigned readings must be completed before the weekly online live class meeting. A basic winemaking book is assigned to the course and the instructor will make every effort to help each student understand the contents of the assigned readings through the lectures, discussion board, and live class discussions.

**Weekly Discussion Questions:** Students will post question(s) each week based on lectures and readings on the online course site "Discussion Board." Research the answer or bring the questions to class. 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 reply to two other students' questions before the next live class meeting.

**Quizzes:** There will be three quizzes to be taken during Weeks 4, 11 and 13. Each quiz will consist of questions taken from the assigned readings. Each quiz will be posted in its corresponding weekly folder for one week. Students must take a quiz within the one-week timeframe. **There will be no make-ups.**

**Exams:** There will be a Midterm Exam during Week 7 that will cover all material through Week 6. The Final Exam will be Week 16 and will cover all material from Weeks 7 to 15. Both exams will consist of multiple choice and true/false questions. The exams will be posted in their corresponding weekly folder. Students must take the exam within the one-week timeframe. **There are no make-ups.**

### **Late Assignments**

Students who turn in late or incomplete assignments will automatically receive a 10% reduction for that assignment. Please inform the instructor in advance if you will not meet a required deadline.

### **Winemaking Project**

A home winemaking project from a kit is required and forms the central basis of learning for the course. Students need to locate a local or online home winemaking supply shop to purchase both the equipment and the juice pack needed for this project.

**NOTE:** If your kit contains a glass carboy, take extra precautions when handling the carboy, as they break very easily and can cause severe injuries. A plastic carboy may be a better option. Students must allow ample time to obtain the kit so the project can begin *no later than Week 5*.

#### **Wine should be mailed to:**

Darren Michaels  
515 Columbia Dr  
Lyle, WA 98635

Each student is required to submit a sample of their finished winemaking project to the instructor for evaluation *no later than Week 13*. Ship a 250ml-375ml sample; **do not ship a 750ml sample.**

Use UPS or FedEx to ship your wine sample; **do not use the U.S. Postal Service to ship your sample; they will not deliver it.**

The winemaking project is only complete when the instructor receives both a wine sample and the completed winemaking log. The wine sample and winemaking log will each make up 50% of the students' winemaking project grade.

**Winemaking Log:** Each student is required to keep a winemaking log to record observations during the winemaking project, including daily measurements during fermentation; and tasting notes. This information is to be entered daily in the Winemaking Log, a MS Word document downloaded from the course site. Upon completion of the winemaking project, students will email their completed Winemaking Log to the instructor by the date specified on the course site and include a hard copy with their wine shipment.

### **Research Paper or Winery Field Observation**

*However, due to the ongoing COVID-19 epidemic in our country, and since a lockdown, and/or other local or state mandated restrictions due to the pandemic could make it impossible for students to fulfill an on-site visit, a written research paper option can be substituted for an on-site field observation. Students are asked to choose one of the following options.*

### **Option 1: Research Paper**

Complete a 3-5 page research paper in MS Word or PDF format. The topic will be of your choice on anything wine production related, e.g., fermentation, yeast selection, malolactic fermentation, aging, wine spoilage, etc. Exception: bottling; bottling cannot be your research topic. More details will be provided during the first live class session.

### **Option 2: Field Observation**

Complete an 8-hour on-site practicum/observation component. The purpose of the practicum/observation is to provide students with the opportunity to familiarize themselves with winery set up and operations, and allows the student an opportunity to work with a winery, shadowing their facilitator, and learn as much as they can about the winemaking process at that winery.

Each student is required to identify a winery and mentor that would be willing to allow the student to visit and observe on-going winery operations. After identifying the mentor, the student should complete the online **Field Practicum Site Form** (link available on the course site and the VESTA website) by the end of the **third** Friday 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 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 the student/trainee evaluation from the mentor.

There is also a recordkeeping requirement, and both the student and the facilitator mutually manage the total hours assigned. Students will submit a **3-5 page** double-spaced, typewritten report of their practicum/observation experience to the instructor by the end of the semester. **The report must be submitted as a MS Word or PDF file.** Other formats will not be accepted. The practicum is only complete when the instructor receives the student/trainee evaluation from the mentor **and** the Practicum Report from the student. The Student Assessment Form and Practicum Report will each make up 50% of the students' winery practicum grade.

GRADING POLICY ON FOLLOWING PAGE

## Grading

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

Percentage Weight of Student Performance		
Activity	Percentage	Points
Weekly quizzes (3)	12%	120 points
Weekly Discussion Questions	13%	130 points*
Midterm Exam	20%	200 points
Final Exam	20%	200 points
Winemaking Project (wine sample and Journal)	15%	150 points**
Research Paper	10%	100 points
Class Participation	10%	100 points***
<b>Total</b>	<b>100%</b>	<b>1000 points</b>

\*10 points each for weeks 2 to 14.

\*\*75 points for wine sample and 75 points for winemaking journal.

\*\*\* At least 14 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
---------------	----------------	----------------	----------------	---------------

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.

---

INSTITUTIONAL POLICIES ON FOLLOWING PAGE

## 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](mailto: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/lcd>.

### **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](http://www.missouristate.edu/policy/op1_02_1_religiousaccommodation.htm)