



An Advanced Technological Education

Resource Center

Grape and Wine Education for the 21st Century

VIN 247 – Intermediate Enology; Post Harvest Operations

Date: **January 29 – April 19, 2024**

Instructor: David Bower

Email: david.bower@nwtc.edu

Phone: 336-386-3569

Office Hours: Virtual, by appointment, phone, email

Semester: **Spring 2024**

Host: Northeast Wisconsin Tech. Col.

Host Course No.: TBA

Course Credit: 2 Hours

Delivery Format: Online

Course Description

This course in the science and technology of winemaking is intended for the experienced intermediate winemaker, the winery employee interested in career development, or the advanced home winemaker that is seeking new challenges. This course will focus on advanced science and technology concepts of winemaking as it relates to post-harvest activities including blending, correction, aging of wine, clarification, fining, wine analysis, and bottling. Basic organic chemistry, microbiology, and some mathematics familiarity are recommended.

Prerequisites: VIN 146 and VIN 246 (VIN 105 and VIN 110 recommended). It is highly recommended that students enroll concurrently in VIN 268 Wine and Must Analysis.

Next Course in Sequence: VIN 268 or VIN 257 and/or VIN 259

Course Objectives

Through lectures, facilitated discussions, quizzes, written assignments, and a practicum, the student who successfully completes this course will be able to demonstrate an understanding of:

- how harvest decisions impact wine treatments during aging and maturation
- chemical processes involved in wine maturation
- container options for wine maturation and storage and their impact on wine characteristics
- bulk wine incorporation into winemaking
- wine deficiencies and corrective action
- how blending can maximize sensory development
- principles and methods involved in clarification
- use and application of fining agents to enhance wine quality
- types and differences among wine filters
- wine stability procedures and quality impact
- analyses and methods important in wine finishing
- preparations of wine for bottling
- bottling process and alternative bottling options
- QA/QC program for wine quality

- packaging options for wine
 - TTB regulations for wines
 - wine flaws and faults
-

Required Textbook (Same as VIN 246)

Boulton, R. B., Singleton, V. L., Bisson, L. F., & Kunkee, R. E. (1998). *Principles and Practices of Winemaking*. Gaithersburg, MD: Aspen Publishers, Inc. The Chapman and Hall Enology Library.

Reference Text (optional)

Zoecklein, B. W., Fugelsang, K. C., Gump, B. H., & Nury, F. S. (1995). *Wine Analysis and Production*, Gaithersburg, MD: Aspen Publishers, Inc. ISBN-13: 978-14-7576-980-7.

This text is not required for this course, however, it is an excellent reference text that should be in the library of every conscientious enology student.

Instructional Format

This is an online course with a synchronous component. An online course site hosted by Northeast Wisconsin Technical College Blackboard system is used to provide announcements, lectures, notes, and supplemental printed and web-based materials to the students. It also serves as a central point for interaction/communication between instructor and students.

Live Class Meetings

The live class meetings will take place every **Monday from 6:30 to 7:30 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 **16-hour practicum** component to this course. The purpose of the practicum is to provide students with hands-on experience in the winery by assisting in various winery operations.

After identifying their 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 **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 a **Student Assessment Form (SAF)** for the mentor to fill out and send to the VESTA office at the conclusion of the practicum.

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.

Course Schedule and Outline of Topics

| Week — Dates | Monday Live Class Meetings | Lecture Topics |
|-----------------------------|---|---|
| 1 01/29 - 02/04 | 01/29 | Course Overview Harvest Review and Winery Sanitation Review Week 1 Quiz |
| 2 02/05 – 2/11 | 02/05 | QA/QC Programs Submit Field Practicum Planning Checklist Sign up for Semester Project Research Topic Group Week 2 Quiz |
| 3 02/12 – 2/18 | 02/12 | Acetic Acid Bacteria and Spoilage (Oxidative Spoilage) Practicum Site Form Due in VESTA Office Week 3 Quiz |
| 4 02/19 – 2/25 | — | Wine Aging – Bulk Determinations (Oxidation, Reduction) Week 4 Quiz |
| 5 02/26 – 03/03 | 02/26 | <i>No live class President's Day</i> Oak Overview Week 5 Quiz |
| 6 03/04 – 03/10 | 03/04 | Fining and Finishing Agents Midterm Exam |
| 7 03/11 – 03/17 | 03/11 | Blending and Sensory Evaluation Week 7 Quiz |
| 8 03/18 – 03/24 | 03/18 | Filtration Overview Week 8 Quiz |
| 9 03/25 – 03/31 | 03/25 | Wine Stabilization Week 9 Quiz |
| 10 04/01 – 04/07 | 04/01 | Sparkling and Fortified Wines Week 10 Quiz |
| 11 04/08 – 04/14 | 04/08 | Bottling Semester Project Individual Research/Review Paper due Week 11 Quiz |
| 12 04/15 – 04/19 | 04/15 | TTB Regulations for Wines Week 12 Quiz Research Paper Presentation Field Practicum Journal due Final Exam |

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

Course Assignments

There will be weekly lecture and reading assignments, weekly quizzes, two exams, a research paper, and participation in field practicum. Students are also required to keep an online reflective journal for the field practicum experience.

Weekly Reading Assignments: Students should view the prerecorded weekly lecture video and complete the textbook reading assignments before the live class meeting.

Weekly Quizzes: There are 12 weekly quizzes through the semester. The weekly quizzes contain questions that check the understanding of the concepts learned for the week. Week 4 had two quizzes, and there is no quiz Week 6 (Midterm Exam week). Quiz question formats are essay, short answer, and fill-in-the-blank. All quizzes are taken online on the course site and are due on Sunday of the week. Essay and short answer questions must be manually graded, so feedback is not immediate.

Exams: There are two exams, a Midterm and Final. The Midterm Exam will cover materials from Weeks 1 through 6. The Final Exam will be comprehensive for the semester. Students will take the exams online through the course site. Exam question formats are essay and true/false. Both exams are taken online on the course site. Essay questions must be manually graded, so feedback is not immediate.

Practicum Journal: Students will be required to keep an online practicum journal for the 16-hour practicum activities during the semester. It will be entered on the online course site using the Journal Tool. Instructions are provided on the online course site. Your instructor will view the online journal entries from time to time and make comments if necessary. *Each visit to the practicum site warrants a journal entry.* Be prompt about making journal entries, while details of each visit are still fresh.

Research Project: Students will conduct a group research project and submit an individual research paper. Detailed information and instructions will be provided on the course site.

Important Note about Late Assignments

Late assignments are usually not accepted. Students should make arrangements to submit an assignment early. The instructor will only accept late assignments in extreme situations **with advanced notice up to three days**. For each day the assignment is significantly late the assignment will lose 10 percentage points. For example, if an assignment was due on Friday and with instructor's permission under extreme circumstances the assignment was submitted on Saturday, the highest grade a student will receive is 90%. Assignments submitted after three days will not be graded.

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 on a timely manner.

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 (rounded) | Points |
| 12 Weekly Quizzes | 38% | 345 |
| Submit Practicum Checklist | 1% | 10 |
| Student Assessment Form (submitted by mentor) | 3% | 25 |
| Practicum Journal | 8% | 70 |
| Midterm Exam | 11% | 100 |
| Final Exam (comprehensive) | 17% | 150 |
| Research Project | 22% | 200 |
| Total | 100% | 900 |

Grade calculation: total points earned \div 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 |
|---------------|----------------|----------------|----------------|---------------|

It is the students' responsibility to see that all assignments, projects and exams reach the instructor in a timely fashion, so grades can be issued.

Make-up Policy

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 must be taken within the timeframe specified by the instructor.

INTUITIONAL POLICIES ON FOLLOWING PAGE

Northeast Wisconsin Technical College Institutional Policies

Student Responsibilities and Policies

As a student of NWTC, you are expected to adhere to the policies of the College, as outlined in the *Student Handbook* which can be viewed and/or downloaded at:

<https://www.nwtc.edu/NWTC/media/student-experience/student%20involvement/FY16-17-Student-Handbook-FINAL-without-ad-pages.pdf>

Please be fully aware of the following policies: Academic Integrity (includes plagiarism, cheating and collusion); Assessment; Copyright Notice; Refund Policy; Student Code of Conduct; Withdrawal from a Class or Program.

Withdrawals and Refunds

Should it become necessary to withdraw, it is the student's responsibility to do so according to the guidelines in Northeast Wisconsin Technical College policy. For information related to withdrawals and refunds click on this link:

<http://www.nwtc.edu/services/studentfinancialservices/Pages/RefundPolicy.aspx>

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

Student Email

NWTC offers a student e-mail account for all students. All official email sent from the host institution or sent through Blackboard, will go to this account. Therefore, you are responsible for monitoring your NWTC student email account. Student email can be accessed by visiting <https://www.nwtc.edu/students/new-students> Student technical assistance is available 24 hours a day, 7 days a week; call toll free at 1-866-235-5037.

If you do not intend to use your NWTC email account, you must contact tech support to redirect (forward) your NWTC email to the email account of your choice. Your instructor will not accept "I didn't get the email" as a legitimate excuse for missing assignments, schedule changes, or other important messages from your instructor, or the host institution.

Disability Act Statement

NWTC complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. For more information contact Student Accommodations Services at: <https://www.nwtc.edu/student-experience/accommodation-services>

Student Rights

For additional information regarding your rights as a student, including college policies on harassment, student rights and other services available at NWTC, please consult the NWTC Student Handbook, available through Student Services or on the NWTC webpage at <http://www.nwtc.edu>

Student Code of Conduct

Students are expected to conduct themselves in accordance with the Student Code of Conduct listed in the *Student Handbook* (see link above). As noted in the handbook, violations will be brought to the immediate attention of the Student Conduct Team and may be referred to the Dean of Student Development or to the Supervisor of Student Involvement. Additionally, in cases where behavior(s)

warrants concern over the safety of the student(s), an alert may be made to the Responsive Intervention for Student Concerns (RISC) Committee.

Class Cancellation

Class cancellations by the institution will be posted as early as possible in the “Announcements” section of the Blackboard course site. Students will also be notified by email.