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Grape and Wine Education for the 21st Century

VIN 117 – Cold Climate Viticulture and Enology

Dates: **January 25 – March 5, 2021**

Instructor: John Thull

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Office Hours: Virtual, by appointment, email

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Semester: **Spring 2021**

Host: Highland Community College

Host Course No: VIN117/OL0

Course Credit: 1 Hour

Delivery Format: Online

Course Description

This 6-week, 1-credit course offers a practical understanding of the obstacles and promise of growing grapes and making wine in cold climates. Topics relating to cold climate production include history, physical limits of grapes, successful varieties, viticulture, and enology methods for producing quality cold climate wine, the state of cold climate research, a review of resources, and marketing strategies in cold climate regions.

This 1-credit course is fast-paced course that will require participation and completion of all assignments in a timely fashion.

Prerequisites: None

Course Objectives

Upon successful completion of this course, students will be able to:

- Demonstrate cold climate terminology.
- Define climate.
- Describe US continental climate.
- Describe how cold kills.
- Explain shoot versus bud tissue cold tolerance strategies.
- Relate manipulation of vine physiology to achieving maximum yields and cold hardiness.
- Relate energetic reserves to cold hardiness.
- Decipher vine health: genetic potential versus vine condition and climate.
- Explain: what is cold hardiness?
- Describe increased humidity leading to disease.
- Describe effects of high soil fertility.
- Describe aspect of sunlight in cold climate regions.
- Summarize grape pest occurrence in the continental climate.
- Understand the cold climate aspects and limits of vinifera, traditional cold climate grapes and new cold climate varieties.
- Understand the market evolution of what grapes are planted and what are desired in the young cold climate industry.
- Understand what climate grapes really like: the good and bad of the cold climate.

- Illustrate cold climate canopy management for fruit exposure to sun, successful trellis types, and reducing malic acid and pH in the vineyard.
- Relay strengths and weaknesses of wine types the cold climate can produce.
- Note where and what world class wines are being produced in cold climate regions.
- Decipher local public demand versus the breadth of cold climate wine potential.
- Review sugar/alcohol and fermentation process.
- Explain methods of reducing malic acid and reducing pH during vinification.
- Illustrate anthocyanins and tannins in cold climate reds.
- Describe the enology methods that are working, and common faults during vinification of cold climate wines.
- Describe the current state of research on cold climate grape and wine production.
- Refer to resources for the cold climate industry: newsletters, books, papers, workshops, labs for testing wines.
- Summarize how demand can be served and created in young cold climate markets.
- Review advantages and disadvantages of cooperative efforts toward standardization and regional marketing.
- Note successful quality control efforts and quality-seal labeling efforts in cold climate regions.
- List value added or secondary product opportunities for the cold climate industry.
- Describe cold climate AVAs and their outcomes.

Required Textbook

Minnesota Grape Growers Association. (2016). *Growing Grapes in Minnesota* (10th ed.).

This book is a free download from the Minnesota Grape Growers Association (MGGA) at:

<https://www.mngrapes.org/page/GrowingGrapes>

You can download the entire book, or individual chapters. There are also 14 Best Practices videos by your instructor available at the same link.

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 Meetings

The live class meetings will take place every **Thursdays from 7:00 to 8:00 p.m. Central Time** via the 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. Students who miss more than two class meetings will automatically receive a 10% reduction in their final grade score.

Course Schedule and Outline of Topics

Week — Dates	Thursday Live Class Dates	Lecture Topics and Assignments
1 01/25 - 01/31	01/28	Unit 1: Introduction to the Cold Climate Grape and Wine Industry Unit 2: Defining Cold Hardy *Week 1 Quiz (30 pts)
2 02/01 - 02/07	02/04	Unit 3: Managing Fruit and Foliage Balance of Cold Climate Grapes Unit 4: Successful Varieties of Cold Climate Grapes *Week 2 Quiz (30 pts)
3 02/08 - 02/14	02/11	Unit 5: Managing Ripeness, Manipulating Acid of Cold Climate Grape Unit 6: Successful Cold Climate Wine Types *Week 3 Quiz (60 pts)
4 02/16 - 02/21	02/18	Unit 7: Managing Cold Climate Wine Chemistry *Grape Variety Report due (25 pts)
5 02/22 - 02/28	02/25	Unit 8: Resources for the Cold Climate Grape and Wine Industry *Week 5 Quiz (30 pts)
6 03/01 - 03/05	03/04	Unit 9: Marketing Cold Climate Grapes and Wine *Wine Style Report due (25 pts) *Final Exam (200 pts)

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

Course Assignments

Course assignments include weekly readings, videotaped lectures/presentations, print-based materials, web resources, written assignments, a semester project, four quizzes and a Final Exam.

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

Grape Variety Report: In a 1-page report to be submitted during the 4th week of the course, students will create an imaginary vineyard of up to 5 acres and include up to 5 cultivars. Select the cultivars most appropriate for your region, define why you have selected these varieties, the climate of the region, and vineyard layout – including trellis system, with rationale. Briefly describe management practices needed for your region. This assignment replaces a Week 4 Quiz.

Wine Style Report: In a 1-page report to be submitted during the 6th week of the course, students will select 1-5 different wine styles based on the varieties selected in the “Grape Variety Report” and briefly define a marketing plan, including logistics and reasoning for your selection. Briefly describe winemaking strategies required for your varieties and region.

Quizzes: There will be four weekly quizzes Weeks 1, 2, 3, and 5 over the materials covered those weeks. All quizzes are taken online during the designated dates found in the weekly course modules of the course site.

Exams: There will be a comprehensive Final Exam. The exam will be taken online during the designated dates found in the last weekly course module of the course site.

Late Assignments

This is a very fast paced course, and no late assignments will be accepted. In case of an extreme circumstance that prevents a student from submitting an assignment on time, the instructor will make an exception with a notification from the student. There will be only one exception allowed for each student, and there is a 10% point deduction for the one allowed late assignment.

Expectations and Instructor Feedback

With the online course format, students are expected to participate in and be prepared for the live sessions by completing the weekly course assignments prior to the live sessions. 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 the best effort to respond to student questions and complete assignment/exam grading in 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 for this class and their percentage weight.

Percentage Weight of Student Performance		
Activity	Percentage	Points
Class Participation	20%	100
Variety Report	5%	25
Wine Style Report	5%	25
4 Quizzes (points vary)	30%	150
Final Exam	40%	200
Total	100%	500

Final grade calculation: total points earned ÷ total points possible; then using the following scale to determine the letter grade:

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

Highland 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 [at this link](#) in the Highland Community College *Student Handbook*.

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

Attendance Policy

VESTA believes that students must attend class in order to achieve the best learning results. In the case of online courses, attendance is defined as active participation in the form of attending synchronous class meetings, 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 field 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

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.

Academic Integrity

This class is subject to Highland Community College's academic integrity policy. All submitted work must be your own. Cheating or plagiarism will not be tolerated. Any student found in violation of this policy will be subject to disciplinary action as outlined by Highland Community College's Academic Integrity Policy in the *Student Handbook* which can be accessed [at this link](#)

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law. Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students must complete the "Disabilities Self-Identification Form" at this link: <https://highlandcc.edu/pages/disability-services>. This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.