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Grape and Wine Education for the 21st Century

VIN 117 (VITI 1399-70) – Cold Climate Viticulture and Enology

Dates: January 29 – March 23, 2018

VESTA Course Name: Cold Climate Viticulture and Enology

Course No: VIN 117

Instructor: John Thull

Office Hours: By appointment via email

Semester: Spring 2018

Course Credit: 1 Hour

Delivery: Online

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Course Description

This 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 will be a fast-paced course that will require participation and completion of 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.
- Interpret climate data.
- Summarize grape production across biomes.
- 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 growth.
- 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.
- Analyze the market opportunities for wine-event centers versus quality wine that can stand alone.
- 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.
- Review potential and limits for market adaptability of vineyards and wine producers.
- List value added or secondary product opportunities for the cold climate industry.
- Describe cold climate AVAs and their outcomes.

Recommended Textbook

Growing Grapes in Minnesota. This book can be obtained from Amazon.com at: https://www.amazon.com/Growing-Grapes-Minnesota-Grape/dp/B000UD454O/ref=sr_1_1?s=books&ie=UTF8&qid=1483221623&sr=1-1&keywords=Growing+Grapes+in+Minnesota or the vendor of your choice.

This is recommended reading; purchasing this book is optional.

Course Schedule and Outline of Topics

Week — Dates	Thursday Live Class	Lecture Topics and Assignments
1 01/29 - 02/04	02/01	History of the Cold Climate Grape and Wine Industry Defining Cold Hardy *Week 1 Quiz
2 02/05 - 02/11	02/08	Managing Fruit and Foliage Balance of Cold Climate Grapes Successful Varieties of Cold Climate Grapes *Week 2 Quiz
3 02/12 - 02/18	02/15	Managing Ripeness, Manipulating Acid of Cold Climate Grape Successful Cold Climate Wine Types *Grape Variety Report due
4 02/19 - 02/25	02/22	Managing Cold Climate Wine Chemistry *Week 3-4 Quiz
5 02/26 - 03/04	03/01	Resources for the Cold Climate Grape and Wine Industry *Week 5 Quiz
6 03/05 - 03/11	03/08	Marketing Cold Climate Grapes and Wine *Wine Style Report due *Final Exam

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 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. Students who missed a class meeting are required to view the recording of the live class as soon as possible.

Course Assignments

Course assignments include weekly readings (online lectures/presentations, print-based materials, and web resources), written assignments, a semester project, and exams.

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 3rd 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.

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 “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 a quiz at the end of each week over the materials covered during the week.

Exams: There will be four weekly quizzes and a comprehensive Final Exam. Students will take all tests in the online D2L course site during the designated dates found in the weekly course modules.

Late Assignments

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. **The instructor will make only one exception for each student and the student will receive a 10% point deduction for one allowed the 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

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = below 60%

Grade Points Distribution	
Activity	Points
Class Participation	100
Variety Report	25
Wine Style Report	25
5 Quizzes (30 pts each)	150
Final Exam	200
Total	500

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.

Central Lakes 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 CLC *Student Handbook* which can be found at:

<http://www.clcmn.edu/wp-content/uploads/2015/05/College-Information.pdf>

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

Refunds for Withdrawals

Courses are non-refundable after the fifth day of the semester. You are responsible to drop any courses you do not plan to attend by the published deadline.

You may be eligible for a partial refund if you withdraw from all courses by the published dates.

Fall and Spring Refund Percentage:

1st through 5th day of semester 100%

6th through 10th day of semester 75%

11th through 15th day of semester 50%

16th through 20th day of semester 25%

After 20th day of the semester 0%

Attendance Policy

Central Lakes College (CLC) 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. CLC 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 in the CLC *Student Handbook* at <http://www.clcmn.edu/wp-content/uploads/2015/05/College-Information.pdf>

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.

Academic Integrity Policy

Academic integrity is one of the most important values in higher education. This principle requires that each student's work represents his or her own personal efforts and that the student acknowledges the intellectual contributions of others. The foundation for this principle is student academic honesty. Central Lakes College students are expected to honor the requirements of the Academic Integrity Policy. Please refer to Central Lakes College *Student Handbook* for details, which can be found at: <http://www.clcmn.edu/wp-content/uploads/2015/05/College-Information.pdf>

Statement of Nondiscrimination

CLC is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

Statement on Disability Accommodation

Central Lakes College recognizes that students with disabilities may have special needs that must be met to give them equal access to college programs and facilities. Inquiries regarding Central Lakes College's policies and guidelines for accommodations to students with disabilities may be directed to the disabilities coordinator, Paula Huss- office C111, 218-855-8175 or email at phuss@clcmn.edu. If you need a reasonable accommodation for a disability (e.g. wheelchair accessibility, interpreter or audiotape) such an accommodation can be made upon 48 hours advance request. Please contact Paula Huss, CLC Disability Coordinator at Brainerd Campus, 1-800-933-0346-ext 8175 or Disability Services on the Staples Campus, 1-800-247-6836- ext. 5182 as soon as possible. Students are encouraged to meet with the coordinator prior to the beginning of each semester.