

CATALOG INFORMATION

Dept and Nbr: VIT 133

Title: ADVANCES IN VITICULTURE

Full Title: Advances in Viticulture

Last Reviewed: 5/8/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.00	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	1.00	Lab Scheduled	0	5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	1.00		Contact Total	17.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 35.00

Total Student Learning Hours: 52.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**  
Students will evaluate and discuss current vinicultural research papers from peer-reviewed journals. The intent is to broaden student perspective beyond textbooks for understanding the most current vineyard practices that aim for efficiency and fruit quality improvement.

**Prerequisites/Corequisites:**

**Recommended Preparation:**  
Eligibility for ENGL 1A or equivalent

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: Students will evaluate and discuss current vinicultural research papers from peer-reviewed journals. The intent is to broaden student perspective beyond textbooks for understanding the most current vineyard practices that aim for efficiency and fruit quality improvement. (Grade or P/NP)  
Prerequisites/Corequisites:  
Recommended: Eligibility for ENGL 1A or equivalent

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Analyze current viticultural research publications.
2. Synthesize and evaluate contemporary viticultural theories and issues.
3. Incorporate the latest viticultural findings into vineyard management decisions when appropriate.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Discuss new concepts regarding quality winegrape growing.
2. Summarize key points in a viticultural research article from a peer-reviewed journal.
3. Evaluate the theories underlying the research.
4. Identify resources/locations for finding the latest viticultural research publications.
5. Evaluate the appropriateness of integrating research findings into a specific vineyard site.

### **Topics and Scope:**

#### **I. Overview of How to Read a Research Paper**

- A. Abstract
- B. Introduction / literature review
- C. Materials and methods
- D. Results
- E. Presentation of the data
  1. Tables
  2. Figures
  3. Statistics
- F. Discussion
- G. Conclusion
- H. References

- I. Accessing peer reviewed journals
- II. Examples of Contemporary Vineyard Issues May Include:
  - A. Deficit irrigation techniques
  - B. Relationship between soil chemistry and winegrape quality
  - C. Genetically modified grapevines for new cultivar and rootstock development
  - D. Evaluation and assessment of wine grape quality
  - E. On-site weather stations and use of sensors in the vine canopy
  - F. Normalized Differential Vegetative Index (NDVI)
  - G. Geographical Information Systems (GIS)
    1. Data collection
    2. Database management
    3. Vineyard decision making based on GIS data, including use of drones
  - H. Climate change

### Assignment:

1. Reading (15-20 pages/week)
2. Written summaries of research papers (4 summaries, 3-5 pages each)
3. Class discussions on research topics
4. Develop a list of questions for each research publication
5. Midterm and/or final exam

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Summaries; questions for each publication

Writing  
45 - 60%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving  
0 - 0%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations  
0 - 0%

**Exams:** All forms of formal testing, other than skill performance exams.

Midterm and/or final exam

Exams  
15 - 25%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Participation in class discussions

Other Category  
20 - 30%

**Representative Textbooks and Materials:**

Instructor prepared materials

Representative journals:

American Journal of Enology and Viticulture

Australian Journal of Grape and Wine Research

Australian and New Zealand Grapegrower and Winemaker

Wine Business Monthly

Oecologia

American Journal of Horticultural Science

Frontiers in Plant Science