

AP-13-66  
AP-9/17/13  
SEP 11 2013  
Senate Info-10/8/13

### Undergraduate Distance Education Review Form

(Required for all courses taught by distance education for more than one-third of teaching contact hours.)

#### Existing and Special Topics Course

Course: GEOG 261: Geography of Wine

Instructor(s) of Record: Robert Sechrist

Phone: x2250 Email: rpsecrest@iup.edu

#### Step Two: Departmental/Dean Approval

Recommendation:  Positive (The objectives of this course can be met via distance education)

Negative

[Signature] 9/11/13  
Signature of Department Designee Date

Endorsed: [Signature] 9/13/13  
Signature of College Dean Date

Forward form and supporting materials to Liberal Studies Office for consideration by the University-wide Undergraduate Curriculum Committee. Dual-level courses also require review by the University-wide Graduate Committee for graduate-level section.

#### Step Three: University-wide Undergraduate Curriculum Committee Approval

Recommendation:  Positive (The objectives of this course can be met via distance education)

Negative

[Signature] 9/18/13  
Signature of Committee Co-Chair Date

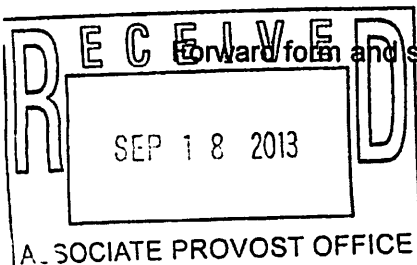
Forward form and supporting materials to the Provost within 30 calendar days after received by committee.

#### Step Four: Provost Approval

Approved as distance education course  Rejected as distance education course

[Signature] 9/19/13  
Signature of Provost Date

Forward form and supporting materials to Associate Provost.



Received Received  
SEP 18 2013 SEP 13 2013  
Liberal Studies Liberal Studies

**Undergraduate Distance Education Review Form**  
(Required for all courses taught by distance education for more than one-third of teaching contact hours.)  
**Existing and Special Topics Course**

**Course: GEOG 261 Geography of Wine**

**Instructor(s) of Record: Dr. Robert Sechrist**

**Phone: x2250**

**Email: [rpsecrest@iup.edu](mailto:rpsecrest@iup.edu)**

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**A. Provide a brief narrative rationale for each of the items, A1-A5.**

**1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?**

Dr. Sechrist has taught the in-class version of the course (Geography of Wine) more than forty times over the past 15 years. He has taught Geography 104 via distance several times and is now quite familiar with D2L and in dealing with technical problems. He currently has most materials for The Geography of wine prepared for on-line usage.

**2. How will each objective in the course be met using distance education technologies?**

A variety of methods will be used for delivery course content, feedback to students, interactions, and assessment. The methods used for each module are subsequently described individually and in detail.

**Objective 1: Understand the wine making process.**

Content from the course will be provided through online resources available through a Learning Management System (LMS) which includes PowerPoint presentations, web page articles, online instructional videos, PDF Atlas, and the use of the course textbook. Students will be able to receive feedback, instructions, and help from the instructor through online forums internal to the LMS. Students will be assessed by completing an exam provided by the instructor.

**Objective 2: Analyze the global spatial patterns of such items as climate, landforms, & natural resources relevant to grape growing.**

Content from the course will be provided through online resources available through a Learning Management System (LMS) which includes PowerPoint presentations, web page articles, online instructional videos, PDF Atlas, and the use of the course textbook. Students will be able to receive feedback, instructions, and help from the instructor through online forums internal to the LMS. Students will be assessed by completing an exam provided by the instructor and an online map quiz.

**Objective 3: Identify grape varieties based on color and character of the wines they produce.**

Content form the course will be provided through online resources available through a Learning Management System (LMS) which includes PowerPoint presentations, web page articles, online

instructional videos, PDF Atlas, and the use of the course textbook. Students will be able to receive feedback, instructions, and help from the instructor through online forums internal to the LMS. Students will be assessed by completing an exam provided by the instructor and by participating in online discussions of global and regional problems and issues.

**Objective 4:** Assess knowledge of places of the world and the qualities of the wine from those places.

Content form the course will be provided through online resources available through a Learning Management System (LMS) which includes PowerPoint presentations, web page articles, online instructional videos, PDF Atlas, and the use of the course textbook. Students will be able to receive feedback, instructions, and help from the instructor through online forums internal to the LMS. Students will be assessed by completing an exam provided by the instructor and an online map quiz.

**Objective 5:** Compare and contrast wine regions of the world regarding their human and physical characteristics.

Content form the course will be provided through online resources available through a Learning Management System (LMS) which includes PowerPoint presentations, web page articles, online instructional videos, PDF Atlas, and the use of the course textbook. Students will be able to receive feedback, instructions, and help from the instructor through online forums internal to the LMS. Students will be assessed by completing an exam provided by the instructor and by participating in online discussions of global and regional problems and issues.

### **3. How will instructor-student and student-student, if applicable, interaction take place?**

Interactions between the student and instructor will be facilitated with a variety of resources in order to maximize feedback and communication with the distance education student. Through threaded discussions students will interact with each other. Method for communication include:

**Email** – E-mail communications between students and instructor will be the preferred method of contact for personal matters. The instructor can be reached via university email address and within the LMS.

**Phone** – The instructor will be available to answer calls via the office phone line during posted office hours. The following instructions will be provided to students: if there is no answer, please leave a message, and the professor will get back to them at the earliest opportunity. This form of communications will not be used for grading or assessment purposes.

**LMS** – To ensure availability to assist students, the instructor will maintain office hours and will be available online. Students may use the chat or audio features to pose questions, check their grades, or contact the professor. This form of communications will not be used for grading or assessment purposes. Students will also be able to upload their book reports to the LMS.

Students will be in communication with each other via postings on discussion topics. The LMS also provides forums. Students will be encouraged to post questions concerning course content, dates, and assignments. Posting questions in forums will allow all students to see the answer and comment further.

#### **4. How will student achievement be evaluated?**

Geography 261 has the following evaluation activities:

**Module Quizzes (50% of grade)** Upon completion of each module students will take a proficiency quiz. The quizzes will assess student knowledge of grapes, wine making technology, and the qualities of the world's wine regions. Beginning and ending dates will be provided within the LMS.

**Exams (30% of grade)** There will be two exams during the semester and a final exam each will be worth 10% of the final grade. The first exam will cover material on grape growing and wine making. The second exam will cover material on old world wine regions. The final exam will focus on new world wine regions and contain comprehensive questions. The exams will be administered on-line. The exams will consist of a variety of question formats.

**Report (10% of grade)** Students shall write a 3-5 page report summarizing one of the supplemental readings.

**Participation (10% of grade)** Students will post responses to questions posed by the instructor on the discussion forum. Students are expected to respond to the answers posted by other students. The number and quality of these postings will be evaluated.

#### **5. How will academic honesty for tests and assignments be addressed?**

Strategies to ensure academic honesty for tests and assignments are provided below:

First, this statement appears in the attached syllabus.

*“Indiana University of Pennsylvania expects a full commitment to academic integrity from each student. This syllabus represents a contract between you and the instructor of this course and that you agree to follow the rules and expectations set up therein. Academic integrity means:*

*Not providing or receiving unauthorized assistance in coursework, including papers, quizzes, and examinations.*

*Not using unauthorized materials and resources during quizzes and tests.*

*Not possessing course examination materials without the prior knowledge of the instructor.*

*Not plagiarizing. Plagiarism is the use of papers, dissertations, essays, report, speeches, oral presentations, take-home exams, computer projects, and other academic exercises without crediting the originator.*

*Not engaging in disruptive or threatening behaviors.*

*Not misusing university computer technology.*

Faculty employs a variety of technology to check the authenticity of student work. Violation of academic integrity will be handled per IUP's Academic Integrity Policy and Procedures. Failure to comply with policies and procedures may result in a decrease in grade, involuntary withdrawal from an academic program, suspension, expulsion, rescission of a conferred degree. IUP's full policy on academic integrity is available in the undergraduate catalog under Academic Policies and online"

Students will be required to take quizzes online using the LMS. The questions and order of the questions and (for multiple choice questions the order of the responses) will be randomized by the software. Additionally the quiz will also record the time and date of each student's attempt to take the quiz, exercise, or exam to ensure that students are not taking them together. Additionally, the evaluations are time limited. Students will only be allowed 20 minutes for the module quizzes, and one hour for the exams. In each case, students will have adequate time to answer the questions but very little time to look up answers using textbooks, presentations, or the Internet.

**B. Place the Undergraduate Distance Education Review Form on top of the Proposal and then submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.**

# **GEOG 261 Geography of Wine Distance Education Syllabus**

**Instructor:** Dr. Robert Sechrist, 15a Leonard, (724)357-2250, [rpsecrest@iup.edu](mailto:rpsecrest@iup.edu)

*It is crucial that you read this syllabus through carefully – this brief document sets out the entire course, its goals, what the instructor and University expect of you as a student, and the path to successful completion*

**Catalog Statement:** The geography of the grape, its production, social significance and consequences of the global wine trade are explored. Students develop an appreciation for the environmental constraints and characteristics of wines and wine regions. Field trips to visit wineries are an essential element. Verifiable proof of 21 year of age require for voluntary wine-tasting activities.

## **Course Objectives**

By the end of the semester successful students will be able to:

### **Objective 1**

Analyze the physical and cultural features that contribute to the geographic character of grape growing regions around the world.

#### **Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** The grape is the world's most diverse food crop. Each of the 10,000 plus grape varieties produces differently in different environmental conditions. This has led to a complex system of grape growing regions and grape varieties. To demonstrate an understanding of the diversity of the grape and the environmental conditions required for its production. Exam questions will be employed to evaluate how well they know what grape variety to expect to see planted where.

### **Objective 2**

Demonstrate knowledge of wine making technology.

#### **Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** There are numerous variations on wine making technology. Students will know the sequence of processes employed to make wine and have the technical knowledge to make their own wine. Module quizzes and exam questions will evaluate how well they know what grape variety to expect to see planted where.

### **Objective 3**

Understand the role of wine in the development of western civilization, the political role of wine in American society, and its growing role in the global economy.

**Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** Wine is one of the three founding foods of western civilization (bread and (olive) oil are the other two). Social opinion of wine and its role in society have changed over the centuries. Understanding the cultural, social, and behavioral differences regarding wine students will come to respect the identities, histories, and cultures of others. Evaluation is accomplished thru examination and participation.

**Objective 4**

Apply a conceptual framework to evaluate wine quality and expected characteristics by grape variety.

**Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** The taste, color, and aromas of each wine are different, yet there are commonalities that can be recognized, evaluated, and compared. Through these activities students learn how to express sensory experiences (olfactory, for example), evaluate them -- thus transforming experience into knowledge and using that knowledge to make judgment (on the wine) and take the appropriate action (order another bottle or try something different). Students employ critical thinking skills when analyzing the complex system of wine evaluation because they must incorporate information from a variety of textual, visual, and electronically-mediated abilities to analyze and apply that information in decision making. Evaluation is accomplished thru examination and participation.

**Objective 5**

Communicate the characteristics of wine by variety, origin, production method, manufacture, and flavor profile.

**Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** The capacity to articulate ones observations and demonstrate knowledge of one of life's great pleasures is of significant import in both social and professional settings. Sharing wine knowledge is often a vehicle for broader conversation. Associated with each wine tastings the class discusses each wine with the emphasis on completing the other objectives. Evaluation is accomplished thru examination and participation.

**Student Audience**

The course is aimed towards third and fourth year college students who desire a working knowledge of wine production, selection and service. It is a liberals studies elective. Consumption of wine is not a requirement.

### **Course Outline**

<i>Topic</i>	<i>Activity</i>
Introduction, Grape prehistory, relevant laws	Read: Introduction
Historical Geography of Wine, Wine and Western Civilization	Read: Chapter 1
Biogeography of Wine, Grape varieties, diseases, and viticulture	Read: Chapters 2
Appellation & Terroir: Climate, Geology, & Grape regions	Read: Chapter 3
Enology: Wine making, fermentation, bottling, storage & transport	Read: Chapter 4
Wine Ceremonies, sensory evaluation & tasting	Read: Loughren Chapters 1-7, 11-15
Exam 1	
Wine in the Global Economy	Read: Chapter 5
Wines of Western Europe	Read: Chapter 6, Loughren Chapter 9
Wines of East & Central Europe	
Wines of the Southern Hemisphere	Read: Chapter 7, Test 2
Exam 2	
Wines of North America	Read: Chapter 8, Loughren Chapter 10 Student Winery Visit Reports Due
Wine Policies, religion, Laws, prohibition, confused signals	Read: Chapter 9
Future of Wine	Read: Conclusions
Final Exams	

### **Instruction Methods/Assignments**

Instructional methods for the lecture will consist of PowerPoint presentations, handouts, videos, readings, and tastings. Instructional methods for the lab will consist of student participation and hands on techniques for product identification. The use of multimedia materials (such as audio, video, and software) and guest speakers may be included.

### **Evaluation and Grading System**

There are 500 points available. There will be two exams, a final, ten module quizzes worth 10 point each, one written assignments, and five several exercises (worth 10 point each). Each of the three tests is worth 100 points. The written assignment is worth 50 points.



**Textbook Required:**     **Planet of the Grapes** by Robert Sechrist  
                                  **A Beer Drinkers Guide to Fine Wine** by Jim Loughren

**Academic Integrity:** *Indiana University of Pennsylvania expects a full commitment to academic integrity from each student. This syllabus represents a contract between you and the instructor of this course and that you agree to follow the rules and expectations set up therein. Academic integrity means:*

- *Not providing or receiving unauthorized assistance in coursework, including papers, quizzes, and examinations.*
- *Not using unauthorized materials and resources during quizzes and tests.*
- *Not possessing course examination materials without the prior knowledge of the instructor.*
- *Not plagiarizing. Plagiarism is the use of papers, dissertations, essays, report, speeches, oral presentations, take-home exams, computer projects, and other academic exercises without crediting the originator.*
- *Not engaging in disruptive or threatening behaviors.*
- *Not misusing university computer technology.*

IUP faculty employ a variety of technology to check the authenticity of student work. Violation of academic integrity will be handled per IUP's Academic Integrity Policy and Procedures. Failure to comply with policies and procedures may result in a decrease in grade, involuntary withdrawal from an academic program, suspension, expulsion, rescission of a conferred degree. IUP's full policy on academic integrity is available in the undergraduate catalog under Academic Policies and online.

**Civility:**

I expect you to be civil during the class online discussions. Please abide by these standards:

1. Check the discussion frequently and respond appropriately and on subject.
2. Capitalize words only to highlight a point – otherwise it will appear that you are shouting.
3. Remember that what you say online stays online, so while you may be vigorous in your discussion, be polite, literate, reasoned, and diplomatic.
4. If you refer to any information sources, cite them for the benefit of the other discussants – the point of all this interaction is mutual aid.
5. Don't be too long-winded. You already have one book to read!
7. Don't forward someone else's messages without his or her permission.
8. Use humor carefully. Without face-to-face cues humor can be misinterpreted as criticism.
9. If something angers you, do not respond immediately. Calm down, think twice, and give a measured response.
10. To reiterate #3: what you say online stays online, and stays, and stays.....

## **Finding Your Way through the Course**

To explore the many landscapes of Geography, you first have to learn how to navigate through the online landscape of this course. Unlike a traditional classroom, you have only the text on your computer screen as a guide, and so it is crucial that you read these instructions carefully. While you can roam freely through the text, please remember that the course is highly structured, with weekly readings and graded assignments that must be completed by specific deadlines.

### **The Geography of Wine Course Website in D2L**

The Geography of Wine D2L home page presents you with a set of tabs (white on black), running under the course banner. It will take you to the course activity areas: from Course Home you can navigate to Content, Discuss, Dropbox, Quizzes, Classlist, and Grades. It's all quite straightforward!

**Course Home** has several dropdown windows (controlled by the arrow button in the upper right corner. This is the key document that will guide you through the course – the syllabus... *News* lists the upcoming course activities and, most importantly, upcoming assignments. *Events* provides you with a calendar where you can track all the course activities and deadlines.

**Content** is where you will find the essential files for your coursework: **Learning Objectives** for each chapter; and the **Weekly Chapter writing/research assignment**.

**Discuss** contains two key forums: the *Geography Student Mashup*, where you can simply log on and communicate with other members of the class on anything of interest related to the course or to the wider issues of geography; and the more formal *Chapter Discussion Group*, where each week you post responses to, and discuss amongst yourselves, a question that I assign from the chapter (see instructions below).

**Dropbox** is where you can pick up or upload course-related documents if required.

**Quizzes** is exactly that – the location of the weekly quizzes.

**Classlist** is where you can discover who else is in the class and how to get in touch.

Finally, in **Grades** you can keep track of the results of your quizzes and other assignments.

### **Structure, Pace and Evaluation Methods**

The course will follow the sequence of chapters in the textbook (see schedule below).

Unlike in a conventionally taught course (a fairly boring one, in which the lecturer goes through the textbook week after week and you simply follow along), you must work through the textbook on your own – using it as a resource tool, providing ideas and content for the writing, research and discussion parts of the course. It takes some discipline to sit down and read through each chapter – but you should see the results in your final grade!

We will cover one chapter each week (over 7 calendar days, Monday to Sunday) – I call them **Chapter Weeks**. Each week, I expect you to read or watch the online material, learn its themes, ideas and contents. Make sure you understand the key terms and concepts – some will show up in exam questions.

#### **Assignments and activities**

**Exams and Final.** – You may only take an exam once. You will have one hour only. Questions will take a variety of forms including multiple choice, true-false, matching, identification, and short answer.

**Module quizzes** – each map quiz will consist of 20 multiple choice identification questions. You will be shown a map and asked to select the correct name. **The quizzes will be NOT be proctored – but they will be TIMED. You will get one chance to take the test and one minute to answer each question.**

Don't use your books or other aides. That is cheating, cheating is obvious, and cheating tends to catch up with you. The quizzes are set to provide you with a score and percentage grade as soon as you complete your attempt. You may view these scores on the **Grades** page of the website. The quizzes must be taken by the scheduled dates. Make-up tests may be given, at the instructor's discretion, only to those who make prior arrangements or whose circumstances warrant this allowance.

**Discussion Posts** – The vitality of an online course is in the interaction between class members that the Discussion Group affords. For this reason, it is crucial that you participate regularly, and in a thoughtful way. **You are graded for the texts and the discussion postings, think carefully about your answers and express yourself clearly. Texts showing a grasp of the material and posted comments that show insight and originality will gain the highest number of grade points.**

**An Important Note:** Discussions can be a bit difficult, as you have to know something of the subject in order to discuss it (thus, the emphasis on reading each week's chapter and doing some work in the online student learning center). With this in mind, you should not be surprised that certain answer types will get no grade points in discussions. **Simply parroting someone else's statement (that is, using the same ideas/words as an answer – like a talking parrot does when you speak to it) will earn no credit.**

For example, someone writes a text about how the geography of Singapore influences its economic development, and they maintain that the country will always be dominated by trade and finance. If you respond by simply agreeing/disagreeing, e.g.: "I agree/disagree with X's statement that ..." **and you don't add any new information that is not in the original poster's text, you get no grade points. Unless you can back an opinion with factual information (that is, to defend it against those with different opinions), it is worthless; and the factual information cannot simply be someone else's opinion, unless you have evidence that their opinion is backed by facts.**

### **Study Suggestions**

How can you successfully complete this course? The following guidelines will help you achieve your goals.

**Read your syllabus carefully.** The schedule provides you with a clear idea of your pace, workload and tasks every week.

**Be timely.** The online course just sits there, waiting for you to work, so you need some good self-discipline. Remember that it is the equivalent of a traditional course with 3 hours of lecture and additional time for assignments, so make sure you reserve enough time to complete the weekly tasks. If you fall behind, you will find it very difficult to catch up, as the rest of life (in school and out) very often gets in the way. You can take a breath or two in March Break.

**Read the chapters carefully.** The chapter and its associated learning resources make up your "lecture" for the week. Noting key points as you read (i.e., by highlighting electronic text or marking up a hard copy) is an extremely good way to study, as it helps you form an impression of the chapter and provides a shortcut when you prepare for the exam.

**Refer to outside sources.** If you use search engines as you read electronic text (this is what I do), you can quickly and easily gain additional information on the subject at hand, resolve any problems of interpretation, or look up definitions – rather than letting the issue slide until the panic of exam time. Don't forget the warmth, security, support and inspiration of a traditional library!

**Course Syllabus of Record  
Geography of Wine GEOG261**

**GEOG 261 Geography of Wine**

**3 class hours  
0 lab hours  
3 credits  
3c-01-3cr**

**Prerequisites:** None

The geography of the grape, its production, social significance and consequences of the global wine trade are explored. Students develop an appreciation for the environmental constraints and characteristics of wines and wine regions. Field trips to visit wineries are an essential element. Verifiable proof of 21 year of age require for voluntary wine-tasting activities.

**Course Objectives**

By the end of the semester successful students will be able to:

**Objective 1**

Analyze the physical and cultural features that contribute to the geographic character of grape growing regions around the world.

**Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** The grape is the world's most diverse food crop. Each of the 10,000 plus grape varieties produces differently in different environmental conditions. This has led to a complex system of grape growing regions and grape varieties. To demonstrate an understanding of the diversity of the grape and the environmental conditions required for its production. Exam questions will be employed to evaluate how well they know what grape variety to expect to see planted where.

**Objective 2**

Demonstrate knowledge of wine making technology.

**Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** There are numerous variations on wine making technology. Students will know the sequence of processes employed to make wine and have the technical knowledge to make their own wine. Module quizzes and exam questions will evaluate how well they know what grape variety to expect to see planted where.

**Objective 3**

Understand the role of wine in the development of western civilization, the political role of wine in American society, and its growing role in the global economy.

**Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** Wine is one of the three founding foods of western civilization (bread and (olive) oil are the other two). Social opinion of wine and its role in society have changed over the centuries. Understanding the cultural, social, and behavioral differences regarding wine students will come to respect the identities, histories, and cultures of others. Evaluation is accomplished thru examination and participation.

#### **Objective 4**

Apply a conceptual framework to evaluate wine quality and expected characteristics by grape variety.

#### **Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** The taste, color, and aromas of each wine are different, yet there are commonalities that can be recognized, evaluated, and compared. Through these activities students learn how to express sensory experiences (olfactory, for example), evaluate them -- thus transforming experience into knowledge and using that knowledge to make judgment (on the wine) and take the appropriate action (order another bottle or try something different). Students employ critical thinking skills when analyzing the complex system of wine evaluation because they must incorporate information from a variety of textual, visual, and electronically-mediated abilities to analyze and apply that information in decision making. Evaluation is accomplished thru examination and participation.

#### **Objective 5**

Communicate the characteristics of wine by variety, origin, production method, manufacture, and flavor profile.

#### **Expected Student Learning Outcomes 1 & 2: Informed Learners; Empowered Learners**

**Rationale:** The capacity to articulate ones observations and demonstrate knowledge of one of life's great pleasures is of significant import in both social and professional settings. Sharing wine knowledge is often a vehicle for broader conversation. Associated with each wine tastings the class discusses each wine with the emphasis on completing the other objectives. Evaluation is accomplished thru examination and participation.

#### **Student Audience**

The course is aimed towards third and fourth year college students who desire a working knowledge of wine production, origins, selection, and service. It is a liberals studies elective. Consumption of wine is not a requirement.

### **Instruction Methods/Assignments**

Instructional methods for the lecture will consist of mainly PowerPoint presentations, handouts, videos, demonstrations and tastings. Instructional methods for the lab will consist of student participation and hands on techniques for product identification. The use of multimedia materials (such as audio, video, and software) and guest speakers may be included. The class will take an optional field trip to the town of Northeast Pennsylvania in Erie County, the heart of Pennsylvania wine country.

### **Evaluation**

There will be two exams, a final, and two assignments. Each of the three tests is worth 100 points. Each of the assignments is worth 50 points. Total points for the semester = 400.

**Grading Scheme** – the difficulty of the course necessitates the following grading scheme:

Students acquiring 87% or more of the available points will have earned a grade of A.

Students acquiring 75% but less than 87% of the available points will have earned a grade of B.

Students acquiring 63% but less than 75% of the available points will have earned a grade of C.

Students acquiring 50% but less than 63% of the available points will have earned a grade of D.

Students failing to acquire 50% of the available points will fail the course and accordingly will receive a grade of F.

### **Textbooks Required:**

Planet of the Grapes by Robert Sechrist

A Beer Drinkers Guide to Fine Wine by Jim Loughren

## **Course Outline**

<i>Time</i>	<i>Topic</i>	<i>Activity</i>
2 hours	Introduction, Grape prehistory, relevant laws	Read: Introduction
4 hours	Historical Geography of Wine, Wine and Western Civilization	Read: Chapter 1
2 hours	Biogeography of Wine, Grape varieties, diseases, and viticulture	Read: Chapters 2
2 hours	Appellation & Terroir: Climate, Geology, & Grape regions	Read: Chapter 3
2 hours	Enology: Wine making, fermentation, bottling, storage & transport	Read: Chapter 4
1 hour	Wine Ceremonies, sensory evaluation & tasting	Read: Loughren Chapters 1-7, 11-15
1 hour	Exam 1	
2 hours	Wine in the Global Economy	Read: Chapter 5
9 hours	Wines of Western Europe	Read: Chapter 6, Loughren Chapter 9
3 hours	Wines of East & Central Europe	
4 hours	Wines of the Southern Hemisphere	Read: Chapter 7, Test 2
1 hour	Exam 2	
4 hours	Wines of North America	Read: Chapter 8, Loughren Chapter 10 Student Winery Visit Reports Due
3 hours	Wine Policies, religion, Laws, prohibition, confused signals	Read: Chapter 9
2 hours	Future of Wine	Read: Conclusions
2 hours	Final Exams	

## Bibliography

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## **Sample Module Lesson**

I have selected the module on Terroir which includes the impacts of environmental conditions on grape growing. This module consists of a PowerPoint file, several video clips demonstrating physical geographic principles (such as cold air drainage), and chapter 3 of the text. The content covers the effects of soil, climate, water bodies, and mountains on grape production and the concept of geographic indicators expressed as American Viticultural Areas.

For the exercise portion of the module, the students map climatic trends of the American Viticultural Areas in Sonoma County for mornings, afternoons, and evenings during the growing season. Through this mapping activity students become familiar with Sonoma wine regions and on the great variation in climate that can occur over relatively small areas. Each student then answers a series of questions about what they see on the maps and the relationships between places and varieties. The non-distance version of this exercise is provided below.

The module concludes with an online quiz on the characteristics of terroir and their effects on grape production.

Instructions: Make three maps showing the conditions in each of the Sonoma County AVAs. Make one map of the morning, one of the afternoon, and one of the evening using the following data and maps. Use the following color codes. Then answer the questions.

Condition	Color Code
Very cool	Blue
Cool	Lt blue
Mild	Green
Warm	No color
Very Warm	Pink
Hot	Red
Fog	X in region + color

Appellation	Morning	Afternoon	Evening	Variety
Sonoma Valley	Cool/fog	Very warm	Cool	Chardonnay
Carneros (Sonoma)	Very cool/fog	Windy/warm	Cool	Chardonnay
Sonoma Mountain	Cool	Warm	Cool	Multiple
Bennett Valley	Cool/Fog	Warm	Cool	Merlot
Sonoma Coast	Very cool/fog	Windy/cool	Cool/fog	Pinot Noir
Russian River	Cool/Thick Fog	Warm	Cool	Chardonnay
Chalk Hill	Cool/light fog	Warm	Cool	Chardonnay
Dry Creek Valley	Cool	Hot	Mild	Zinfandel
Rockpile	Mild	Very warm	Mild	Zinfandel
Alexander Valley	Cool/light fog	Hot	Mild	Cabernet Sauvignon
Knights Valley	Very Cool	Hot	Cool late	Cabernet Sauvignon
Green Valley	Cool/Thick Fog	Warm	Cool/fog <sup>1</sup>	Pinot Noir

Which place experiences the greatest daily change of conditions? \_\_\_\_\_

Which place has the smallest daily change in conditions? \_\_\_\_\_

Where are the foggy areas located? \_\_\_\_\_

What do the foggy areas have in common? \_\_\_\_\_

What do the places that are hot in the afternoon have in common? \_\_\_\_\_

\_\_\_\_\_

<sup>1</sup>Sonoma County Grape Growers Association. 2006. Exploring the Appellations of Sonoma County Sebastopol CA.

What do the areas that favor Chardonnay have in common? \_\_\_\_\_

\_\_\_\_\_

What do the areas that favor Pinot Noir have in common? \_\_\_\_\_

\_\_\_\_\_

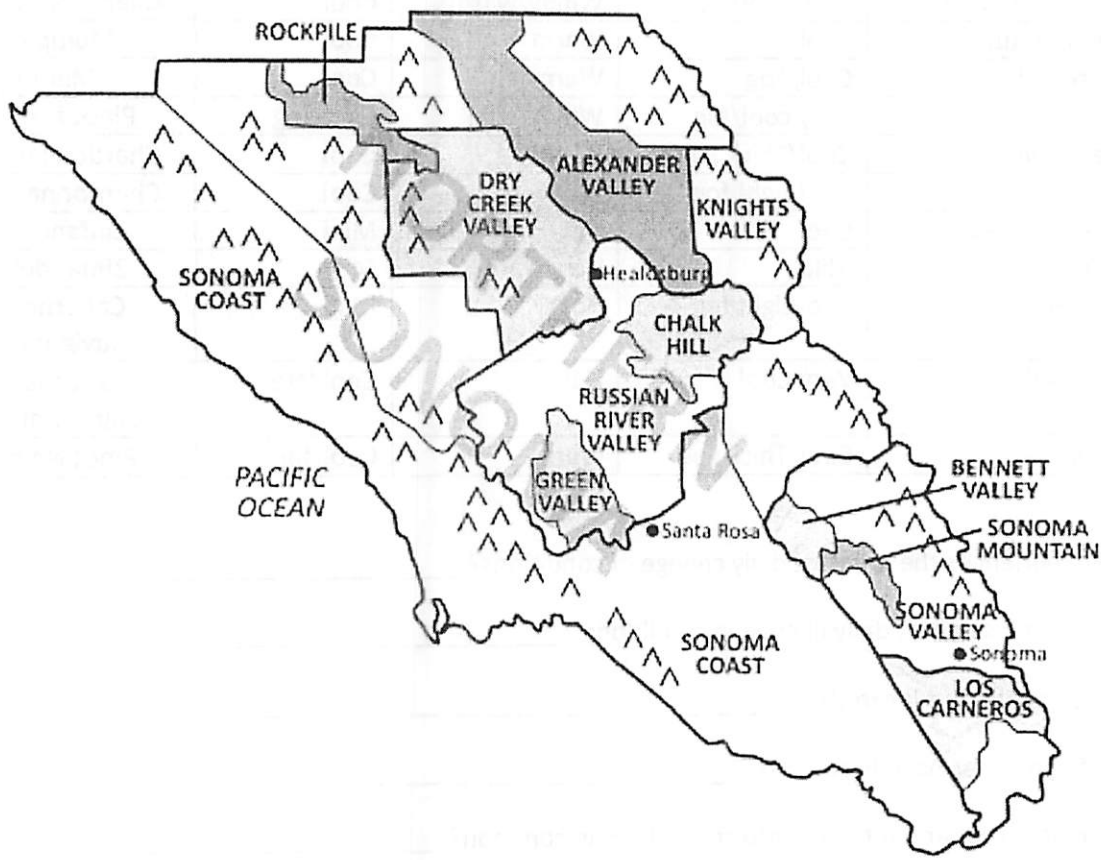
What do the areas that favor Zinfandel have in common? \_\_\_\_\_

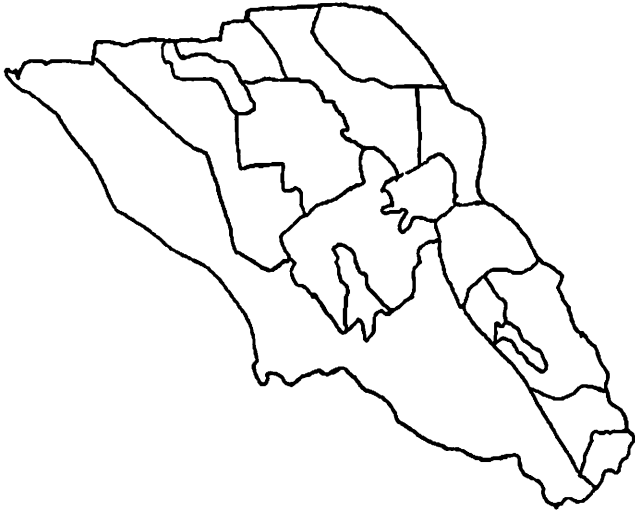
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What do the areas that favor Cabernet Sauvignon have in common?

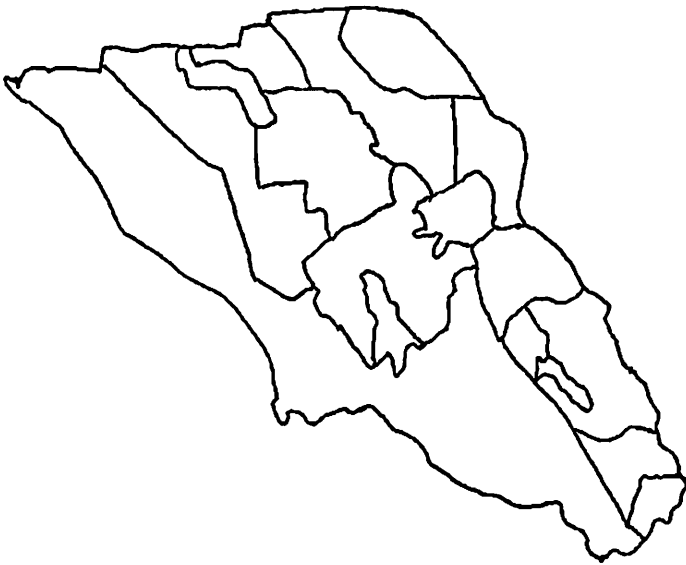
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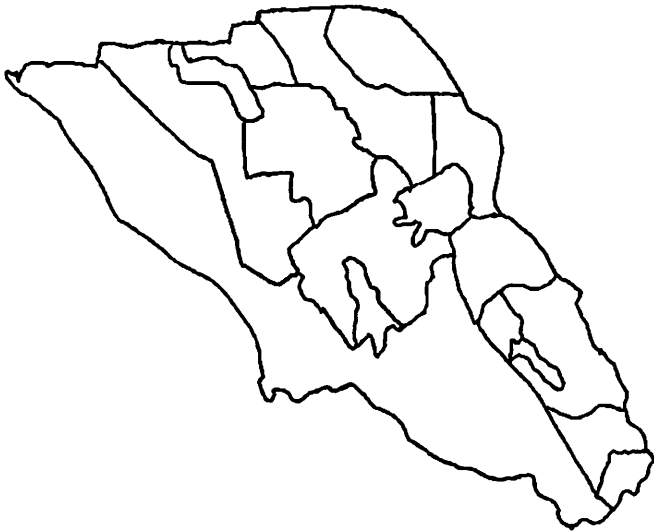




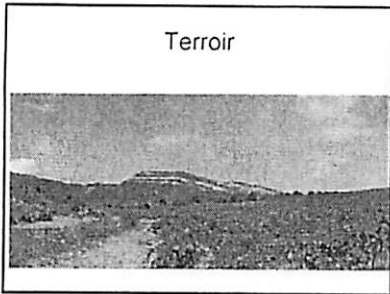
Morning



Afternoon



Evening



### Meaning of Terroir

English has no precise translation for the French word *Terroir*. *Terrain* comes nearest, but has a less specific, less emotive, connotation. Perhaps that is why many Anglo-Saxons mistrust it as a Gallic fancy. It embraces the dirt itself, the subsoil beneath it, its physical properties and how they relate to the local climate— for example how quickly it drains, whether it reflects sunlight or absorbs its heat. It embraces the lie of the land, its degree of slope, its orientation to the sun, and the tricks of microclimate that springs from its location and its surroundings.

### Terroir

- geographical location
- subsoil/bedrock
- soil composition & properties
- slope, slope aspect, drainage
- shade
- climate/microclimate
  - day & night-time T
  - rainfall distribution
  - hours of sunlight
- ecosystem, human influence, ....etc., etc.

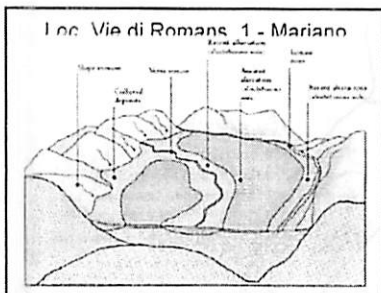
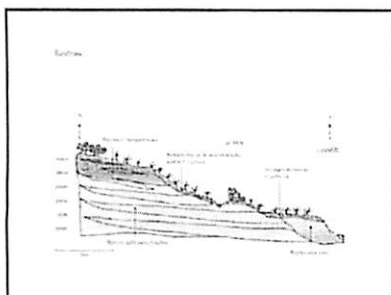
### Terroir Scale Influences

### Geology and Terroir

- Bedrock material provides nutrients
- Permits / prevents flow of deep ground water
- Depth to bedrock is important to deep rooting vines!

### Napa Valley geomorphology

© 1998 PAUL KENZEL PILSEN  
A slice across the Napa Valley would reveal several concentric bands of rocks representing elements of the region's tectonic history. In the middle, the youngest layer contains clay and fine-grained sediments. Flanking west and east of these are deposits of weathered volcanic rock, marine sediments, and deep sea crust.



### Medoc

#### Wine-growing Medoc profile

WEST VINEYARDS VINEYARDS GRAPES EAST

### Soil and Terroir

- Derived from bedrock and organics
- Mixture of materials – pure organics at top and bedrock at bottom
- Size of particles determines soil drainage

### Soils and vines

- vines grow on many soils in temperate climates
- soil/subsoil important in determining quality
- no direct connection proved between specific soil minerals and flavor of grape or wine
- vines have very low nutrient requirements: good use of poor soils

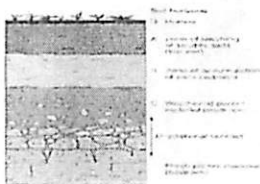
### Famous Soils

- The gravel of Graves,
- The Rocks of Chateaufneuf-do-Pape
- The chalk of Champagne
- The dust of Rutherford Napa Valley
- The slate of Mosel
- The clay of Barolo
- The ponca mart of Friuli

### Vines depend on soils for...

- Anchorage
  - Deeply rooting plants
- regulation of water supply
  - Abundant water: yield ↑ but quality ↓ (large, watery grapes)
  - Drought may hinder ripening
  - Many varieties prefer well-drained soils, often stony, on a slope
  - Soil structure & drainage more important than soil type?
- Nutrients and micronutrients
- temperature regulation
  - Long Hot Summers

### Soil Profile Looking at Dirt Sideways



### Soil Acidity – Weak alkaline for wine grapes



### Soil Particle Size



### Clay



- Smallest Particle – aeolian deposition
- Corn Flake shaped
  - overlap makes it hard to penetrate
  - Water gets between and becomes slick
- Clay soils tend to be more or less dark brown in color and become sticky when wet.
- This soil hardens to something resembling concrete in dry weather.
- They are usually rich in nutrients and make a good growing medium with added soil improvers, especially organic matter.

### Silt

- Intermediate in size
- Often higher organic content
- Created by erosion, transportation, deposition




### Sand

- Sandy soils generally have a fine grained silica base and retain very little in the way of water, fertilizers or nutrients which means they are extremely poor.
- Once they have dried out, they are difficult to moisten
- Sandy soils are light and easy to dig, hoe and weed.
- Warms up rapidly in spring and seeds germinate early.
- They allow water to drain through too quickly and nutrients tend to be washed away.

### Stony soils...

- reflect and diffuse sunlight to lower leaves
- absorb heat by day, release it at night
- conserve moisture



### Calcareous Soils

- Limestone and Chalk are considered best soils in Europe
- They are weak alkali,  $ph = 7.5 - 8.5$
- These soils are well drained, therefore
  - Warmer – promotes vine growth & ripening

### Soils


Wine Region	Soil Type
Bordeaux	Predominately sandy, gravelly loam. Some clay, calcareous subsoil
Burgundy	Calcareous in Cote de Or, granite in s Burgundy
Chablis	Clay
Champagne	Chalk
Moselle	Slate Loam
Jerez	Chalk

### Hardworking vines growing in rubble above outcrops of Ordovician deepwater shale and fine sandstone



### Berloup, France

Vines in poor soil on Ordovician of the southern slopes of the Montagne Noire: part of the 'zone schisteuse' of the St Chinian appellation




### Climate and Terroir

- Grapes grow between 30 and 50 degrees north and south latitude.
- Grapes grow in Mediterranean, West coast marine, and continental climates
- DIFFERENT grape varieties thrive in each climate zone

### Climatic Scale

- Macro Climates
  - Defines large regions as either tropical, sub-tropical, Mediterranean, temperate, sub-polar, polar
  - Primarily Defined by latitude
- Meso Climates
  - smaller areas within macro climatic areas
  - Primarily influenced by topography
    - Rain Shadows
    - Lake Effects
- Micro Climate
  - Small areas ranging from a square mile to a square foot
  - Observe differences in snow melt on a field
  - Primarily defined by slope, aspect, solar intensity

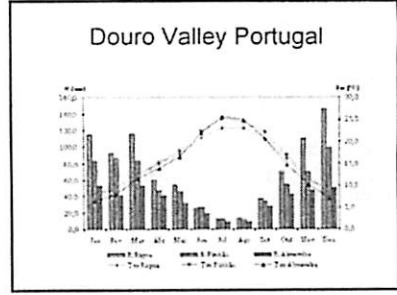
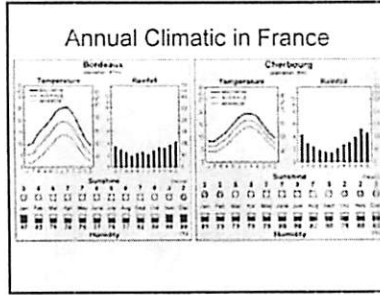
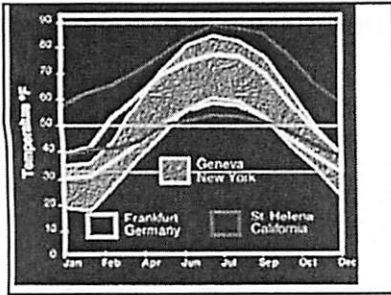
### Warm & Cool Wine Regions



Legend: Warm (light gray), Cool (dark gray)

The World of Wine Grape Production: Warm Climates & Cool Climates





### Meso Scale Climate Winkler Climate Classification

- Based on Heat Summation
- Expressed as Degree Days
- Steps for calculating degree days
  - Find average daily temperature for each day
  - For every degree the average is over 50 add one to the total
  - If avg is 70 for a day, then that day is worth 20 degree days.
  - Daily measure can be summed monthly or annually.

### Winkler's Wine Regions

- Heat summation index
- Take period April 1 to Oct 31
  - equals growing season
- Subtract 50 from each day's mean daily temperature in F
- Sum result across time period
- 5 categories 1 coldest 5 hottest
- warmer temps make more sugar, less acid

### Region 1

- <2,500 degree days
- Locations - Burgundy, champagne, Mosel
- White Grapes - Riesling, Chardonnay, Gewurtztraminer
- Red Grapes - Pinot Noir
- Plant on hillsides (facing sun) - to avoid cold air drainage

### Region 2

- 3,000 > region 2 > 2,501 degree days
- Locations - Bordeaux, Napa Valley, Yakima
- White Grapes -
- Red Grapes - Cabernet Sauvignon, Merlot, Cabernet Franc, Zinfandel
- hillside planting

### Region 3


- 3,500 > region 3 > 3,001 degree days
- Locations - Napa, Central Coast, Langedoc
- Grapes - cabernet Sauvignon, Zinfandel,
- transitional between hot and cool regions
- higher sugar contents result in naturally sweet wines

### Region 4

- 4,000 > region 4 > 3,501
- Locations - Central Valley CA, San Diego
- too hot for premium wines
- sweet & fortified wines
- Grapes - Chenin Blanc, Chardonnay, French Colombard

### Winkler Region 5

- over 4,000 degree days
- Locations - Spain, Portugal, Southern CA
- Irrigation




### Degree Days for Select Places

Table 3. Growing Degree Days, not annualized, and average for the month of the calendar month for grape production areas.

Location	Latitude	Longitude	Country	Mean Degree Days	Month
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Jan
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Feb
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Mar
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Apr
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	May
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Jun
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Jul
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Aug
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Sep
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Oct
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Nov
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Dec
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Jan
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Feb
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Mar
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Apr
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	May
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Jun
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Jul
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Aug
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Sep
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Oct
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Nov
Frankfurt (Germany)	50° 00'	10° 00'	Germany	1,500	Dec

### Meso Scale Climate Precipitation Patterns

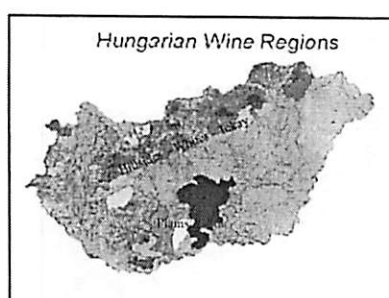


- Annual precipitation is important, but seasonality is more so.

### Varietal growth by Winkler Region

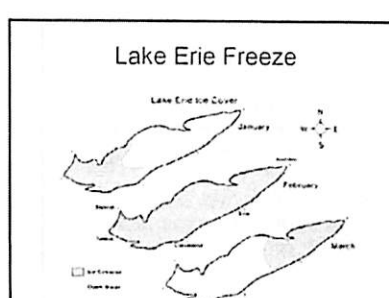
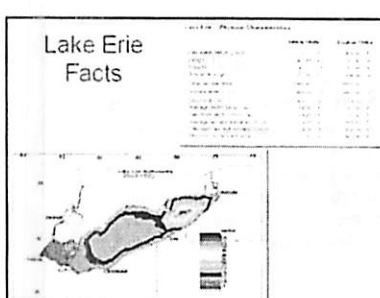
TABLE 4. Estimated optimal climatic conditions for grape production in different wine-growing regions.

Varietal	Region				
	I	II	III	IV	V
Chardonnay	100	50	10	10	40
Merlot	70	50	10	10	40
Pinot Noir	100	50	10	10	40
Garnacha	100	50	10	10	40



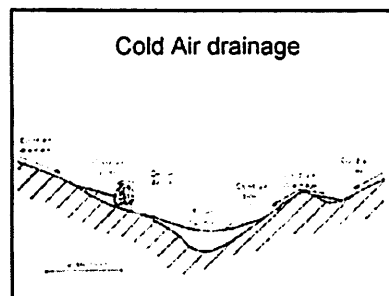
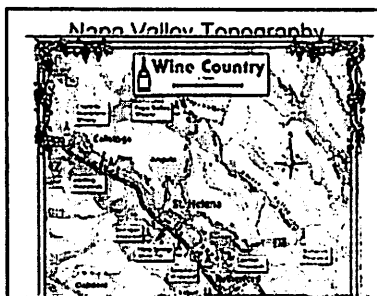
### Meso Climate Scale Lake Effect Vineyards

- Requires **Sizable** body of water
- Water temperature changes more slowly than soil
  - Solar penetration greater
  - Evaporation creates a heat sink
- Cold air from over water in spring reduces chance for premature budding, bud too early can be frost damaged
- Warm air from over water in fall extends growing season, protects against early frost, allows over ripening without rot



### Micro Climatology Topography and Terroir

- topography & slope largely determined by geology
- S & E facing slopes are best in cooler areas, to allow maximum ripening
- geological structure is particularly important in controlling landscape (e.g. N-S rifts in Burgundy & Alsace; E-W ridges in Languedoc)



### Hillside Vineyard Location

