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OFFICE OF THE
SENATE COUNCIL**1. General Information**

1a. Submitted by the College of: AGRICULTURE, FOOD AND ENVIRONMENT

Date Submitted: 1/21/2015

1b. Department/Division: Horticulture

1c. Contact Person

Name: Jeff Wheeler

Email: jeff.wheeler@uky.edu

Phone: 859-494-2311

Responsible Faculty ID (if different from Contact)

Name: Seth DeBolt

Email: seth.debolt@uky.edu

Phone: 859-257-8654

1d. Requested Effective Date: Semester following approval

1e. Should this course be a UK Core Course? No

2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: No

2b. Prefix and Number: PLS 337

2c. Full Title: Introduction to Enology: Wine Production

2d. Transcript Title: Introduction to Enology

2e. Cross-listing:

2f. Meeting Patterns

LECTURE: 3

2g. Grading System: Letter (A, B, C, etc.)

2h. Number of credit hours: 3

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

2j. Course Description for Bulletin: This course is designed to provide students with an understanding of procedures used to produce commercial wines in Kentucky. Topics to be discussed include: the impact of vineyard management practices on wine quality, chemical constituents of wine grapes, production procedures specific to various wine styles using both small and large scale equipment, and economics of wine production. Lecture, three hours per week.

2k. Prerequisites, if any: Must be 21 years of age prior to first day of class.

2l. Supplementary Teaching Component:

3. Will this course taught off campus? Yes

If YES, enter the off campus address: U.K. Horticulture Research Farm - 4321 Emmert Farm Lane - Lexington KY, 40514

4. Frequency of Course Offering: Fall,

Will the course be offered every year?: Yes

If No, explain:

5. Are facilities and personnel necessary for the proposed new course available?: Yes

If No, explain:

6. What enrollment (per section per semester) may reasonably be expected?: 30

7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: Yes

Will it be of interest to a significant number of students outside the degree pgm?: Yes

If Yes, explain: This course will provide a base knowledge of wine production practices that will be valuable to students in the wide range of both social and professional environments.

8. Check the category most applicable to this course: Relatively New – Now Being Widely Established,

If No, explain:

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program?: Yes

If YES, name the proposed new program: Undergraduate Certificate in Distillation, Wine, and Brewing Studies (DWBS)

b. Will this course be a new requirement for ANY program?: No

If YES, list affected programs:

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?: No

b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10.a above) are attached: Yes

Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

Interactive Video: No

Hybrid: No

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.

4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?

If yes, which percentage, and which program(s)?

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?

6. How do course requirements ensure that students make appropriate use of learning resources?

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)?

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? NO

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10. Does the syllabus contain all the required components? NO

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:

SIGNATURE|RHOUTZ|Robert L Houtz|PLS 337 NEW Dept Review|20141107

SIGNATURE|LGRABAU|Larry J Grabau|PLS 337 NEW College Review|20150121

SIGNATURE|JMETT2|Joanie Ett-Mims|PLS 337 NEW Undergrad Council Review|20150331

Courses	Request Tracking
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New Course Form

<https://myuk.uky.edu/sap/bc/soap/rfc?services=>

[Open in full window to print or save](#)

Generate R

Attachments:

Upload File

ID	Attachment
Delete 4317	PLS 337 UGC Review Checklist.docx
Delete 4721	PLS 337 Wine Production syllabus 3-27-15.docx

1

Select saved project to retrieve...

(*denotes required fields)

1. General Information

- a. * Submitted by the College of: Submission Date:
- b. * Department/Division:
- c.
- * Contact Person Name: Email: Phone:
- * Responsible Faculty ID (if different from Contact): Email: Phone:
- d. * Requested Effective Date: Semester following approval OR Specific Term/Year ¹:
- e.
- Should this course be a UK Core Course? Yes No
- If YES, check the areas that apply:
- Inquiry - Arts & Creativity Composition & Communications - II
- Inquiry - Humanities Quantitative Foundations
- Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning
- Inquiry - Social Sciences U.S. Citizenship, Community, Diversity
- Composition & Communications - I Global Dynamics

2. Designation and Description of Proposed Course.

- a. * Will this course also be offered through Distance Learning? Yes ¹ No
- b. * Prefix and Number:
- c. * Full Title:
- d. Transcript Title (if full title is more than 40 characters):
- e. To be Cross-Listed ² with (Prefix and Number):
- f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.
- | | | | |
|--|--|---------------------------------|---------------------------------|
| <input type="text" value="3"/> Lecture | <input type="text"/> Laboratory ¹ | <input type="text"/> Recitation | <input type="text"/> Discussion |
| <input type="text"/> Indep. Study | <input type="text"/> Clinical | <input type="text"/> Colloquium | <input type="text"/> Practicum |
| <input type="text"/> Research | <input type="text"/> Residency | <input type="text"/> Seminar | <input type="text"/> Studio |
| <input type="text"/> Other | If Other, Please explain: <input type="text"/> | | |
- g. * Identify a grading system:
- Letter (A, B, C, etc.)
- Pass/Fail
- Medicine Numeric Grade (Non-medical students will receive a letter grade)
- Graduate School Grade Scale
- h. * Number of credits:
- i. * Is this course repeatable for additional credit? Yes No
- If YES: Maximum number of credit hours:
- If YES: Will this course allow multiple registrations during the same semester? Yes No

j. * Course Description for Bulletin:

This course is designed to provide students with an understanding of procedures used to produce commercial wines in Kentucky. Topics to be discussed include: the impact of vineyard management practices on wine quality, chemical constituents of wine grapes, production procedures specific to various wine styles using both small and large scale equipment, and economics of wine production. Lecture, three hours per week.

k. Prerequisites, if any:

Must be 21 years of age prior to first day of class.

l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address: U.K. Horticulture Research Farm - 4321 Emmert Farm Lane - Lexington KY, 40514

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 30

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

This course will provide a base knowledge of wine production practices that will be valuable to students in the wide range of both social and professional environments.

8. * Check the category most applicable to this course:

- Traditional – Offered in Corresponding Departments at Universities Elsewhere
 Relatively New – Now Being Widely Established
 Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? Yes No

If YES, name the proposed new program:

Undergraduate Certificate in Distillation, Wine, and Brewing Studies (DWBS)

b. * Will this course be a new requirement ^a for ANY program? Yes No

If YES ^a, list affected programs:

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) identify additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable 10.a above) are attached.

^a Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
^b The chair of the cross-listing department must sign off on the Signature Routing Log.

In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, is two hours per week for a semester for one credit hour. (from SR 5.2.1)

You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

In order to change a program, a program change form must also be submitted.

Rev 8/09

Submit as New Proposal Save Current Changes

General Course Information

- Full and accurate title of the course
- Departmental and college prefix
- Course prefix, number and section number
- Scheduled meeting day(s), time and place

Instructor Contact Information (if specific details are unknown, "TBA" is acceptable for one or more fields)

- Instructor name
- Contact information for teaching/graduate assistant, etc.
- Preferred method for reaching instructor
- Office phone number
- Office address
- UK email address
- Times of regularly scheduled office hours and if prior appointment is required

Course Description

- Reasonably detailed overview of the course (course description should match on syllabus and eCATS form)
- Prerequisites, if any (should match on syllabus and eCATS form)
- Student learning outcomes
- Course goals/objectives
- Required materials (textbook, lab materials, etc.)
- Outline of the content, which must conform to the Bulletin description
- Summary description of the components that contribute to the determination of course grade
- Tentative course schedule that clarifies topics, specifies assignment due dates, examination date(s)
- Final examination information: date, time, duration and location
- For 100-, 200-, 300-, 400-, 400G- and 500-level courses, numerical grading scale and relationship to letter grades for undergraduate students
- For 400G-, 500-, 600- and 700-level courses, numerical grading scale and relationship to letter grades for graduate students. (Graduate students cannot receive a "D" grade.)
- Relative value given to each activity in the calculation of course grades (Midterm=30%; Term Project=20%, etc.)
- Note that undergraduate students will be provided with a Midterm Evaluation (by the midterm date) of course performance based on criteria in syllabus
- Policy on academic accommodations due to disability. Standard language is below:

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

UGE Review ()

Add prerequisite to syllabus

Revise Class Participation section to clarify that points will not be deducted if students have an excused absence

Include make-up policy for students who have an excused absence

Course Policies

- Attendance
- Excused absences
- Make-up opportunities
- Verification of absences
- Submission of assignments
- Academic integrity, cheating & plagiarism
- Classroom behavior, decorum and civility
- Professional preparations
- Group work & student collaboration

Committee Review ()

Comments

Introduction to Enology: Wine Production

Course Syllabus

Course Information:

Course Number: PLS 337

Semester: Fall 2015

Class days & time: Tuesday (3:00 - 5:15 p.m.)

Classroom: University of Kentucky Horticulture Research Farm

Instructor Information:

Jeff Wheeler

Agriculture Science Center N-308D

859-494-2311

jeff.wheeler@uky.edu

Office Hours (by appointment)

Course Description:

This course is designed to provide students with an understanding of procedures used to produce commercial wines in Kentucky. Topics to be discussed include: the impact of vineyard management practices on wine quality, chemical constituents of wine grapes, production procedures specific to various wine styles using both small and large scale equipment, and economics of wine production. The classroom used for this course is located at the University of Kentucky Horticulture Research Farm, where student will receive hands on field laboratory instruction as well as traditional classroom lectures. Lecture, three hours per week.

Course Prerequisite

Must be 21 years of age prior to first day of class.

Course Goals:

1. To provide knowledge of basic procedures of wine production.
2. To provide an understanding of factors that limit commercial wine production.
3. To provide students with the necessary skills to acquire an entry level position in the commercial wine industry.

Student Learning Outcomes

By the end of the course, students should be able to:

1. Describe the major limitations to successful wine production in the Eastern U.S.A.
2. Demonstrate the steps involved in successful procurement of a representative and unbiased fruit sample
3. Demonstrate the ability to accurately monitor grape berry development through measurements of sugar accumulation, pH, and Titratable Acidity
4. Successfully harvest and process grapes in preparation for alcoholic fermentation
5. Demonstrate the ability to measure yeast available nitrogen (YAN) using the reduced formol method
6. Describe specific wine production practices that determine wine style
7. Initiate and successfully monitor an alcoholic fermentation including measurement of residual sugar in g/L
8. Demonstrate the ability to measure free SO₂ in wine using the aeration oxidation method
9. Demonstrate the ability to measure % alcohol by volume of wines that have completed alcoholic fermentation
10. Demonstrate the ability to filter and bottle wine
11. Describe the role of aging on wine quality parameters

Required Textbooks:

Baldy, M. W. The University Wine Course. 1997. The Wine Appreciation Guild. ISBN: 978-0932664693.

Bird, D. Understanding Wine Technology. 2010. Third Edition. DBQA Publishing. ISBN: 978-1934259603.

Margalit, M. Concepts in Wine Technology. 2012. Third Edition. Wine Appreciation Guild. ISBN: 978-1935879800.

Relative Value of Assessments Toward Course Grade:

Components of the course that will contribute to the determination of the course grade include 3 separate examinations that will account for 75% of a students' grade as well as an attendance/participation score that will account for 25% of the final grade. Grades will be based on both Exams and Class participation.

Assessment	Number of points	Percentage of Course Grade
Exam 1	100	25%
Exam 2	100	25%
Final Exam	100	25%
Class Participation	100	25%
Total	400	100%

Class Participation:

Students are expected to be present, on time, engaged and actively participate in class discussion. Attendance will be taken at the beginning of each class period. Each unexcused absence will reduce a students' Final grade by 6pts = 1.5% (see "Excused Absences and Verification" below). Students have one week following excused absence to contact instructor regarding missed graded work.

Grade Scale:

Final course grades are assigned according to the following criteria.

Course Grade	Percentage	Points
A	90% or better	360 – 400
B	80 – 89%	320 – 359
C	70 – 79%	280 – 319
D	60 – 69%	240 – 279
E	Below 60%	Less than 240 points

Exams:

Exams will include a combination of multiple choice and short answer questions. Material covered on each exam will be cumulative. Students are encouraged to challenge a question or discuss the grading of individual exams with the instructor. Make-up exams will be granted when tests are missed for an excused absence (See description of Excused Absence and Verification below).

Mid-term Grade:

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (<http://www.uky.edu/Registrar/AcademicCalendar.htm>)

Weekly Reading Assignments:

Completion of weekly reading assignments prior to attending class will be extremely helpful in facilitation of discussion and class participation. These assignment are designed to improve student's ability to comprehend and retain lecture material.

*Abbreviations used to identify origin of reading assignment listed in Proposed Schedule below

UWC* = **The University Wine Course**

UWT* = **Understanding Wine Technology**

CWT* = **Concepts in Wine Technology**

Excused Absences and Verification:

Please see Student Rights and Responsibilities, Part II, Section 5.2.4.2 (<http://www.uky.edu/StudentAffairs/Code/part2.html>) for UK's policy on excused absences.

Excused absences include (as defined at the web site above):

- Significant illness of student or serious illness of household member or immediate family
- Death of a household member or immediate family
- Trips for members of student organizations, class excursions or participation in intercollegiate athletic events
- Religious holidays (see http://www.uky.edu/Ombud/ForFaculty_ReligiousHolidays.php)
- Any other circumstance that the instructor finds reasonable cause for nonattendance

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Verification of Absences: Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

Academic Accommodations:

If you have a documented disability that requires academic accommodations, please see me as soon as possible. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, jkarnes@uky.edu) for coordination of campus disability services available to students with disabilities. We can then collaborate on the best solution.

Academic Integrity, Cheating and Plagiarism:

See the web page at the Office of Academic Ombud Services for a definition of plagiarism, how to avoid plagiarism, and UK's academic offense policy (<http://www.uky.edu/Ombud/Plagiarism.pdf>)

Please see: Student Rights and Responsibilities, Part II, Section 6.3 (<http://www.uky.edu/StudentAffairs/Code/part2.html>) for UK's policy on academic integrity.

Classroom Behavior, Decorum and Civility:

Please be respectful to others in the class and prevent any unnecessary distractions by restricting personal communication unrelated to the current lecture topic. Please turn cell phones off during class.

Proposed Lecture Topics, Tentative Schedule & Reading Assignments:

- 1 - Introduction to the Kentucky Wine Industry (Sept. 1)**
 - Current state of the Kentucky wine industry
 - Grape Cultivars Used for Winemaking in Kentucky
 - **Organoleptic Evaluation of Wines**
 - Defining Structural Characteristics of Wine
 - Acidity, Alcohol, Astringency, Sweetness
 - Defining Typical Aromas Present in Wine
 - Grape Derived Aroma, Yeast Derived Aroma, Bouquet

- 2 - Grape Ripening (Sept. 8)**
 - Reading = (UWT – pg. 18-26) (CWT – pg. 3-15)
 - Principal constituents of grapes
 - Measuring % soluble solids, pH, Titratable acidity
 - **Fruit Sampling and Harvest**
 - Reading = See Handout
 - Predicting yield and quality
 - Fruit sampling protocol & Yield estimations
 - Determining harvest date
 - Monitoring fruit ripening
 - Effects of weather on fruit ripening
 - Pests of grapevines near harvest
 - Effects of fruit chemistry on wine style
 - Harvest logistics
 - Hand vs. machine harvest
 - Transporting fruit from vineyard to winery
 - Short term cold storage

- 3 - White Wine Production (Sept. 15)**
 - Reading = (UWC – pg. 63-98)
 - Reading = (UWC – pg. 99-126) = Organoleptic Evaluation of White Wines
 - White wine production basics
 - Additions to must prior to fermentation
 - Adjusting potential alcohol, pH, and T.A. of “white” must
 - The role of oxygen in winemaking
 - Use of dry ice, inert gases, SO₂ prior to fermentation
 - Receiving and processing fruit prior to fermentation
 - De-stemming, Sorting, Crushing, Must handling, Must additions, Pressing, Cold settling
 - Clarifying and racking pressed juice
 - Winery sanitation

- 4 - Red Wine Production (Sept. 22)**
 - Reading = (UWC – pg. 127-148)
 - Reading = (UWC – pg. 149-178) = Organoleptic Evaluation of Red Wines
 - Red wine production basics
 - Additions to must prior to fermentation

- Adjusting potential alcohol, pH, and T.A. of "red" must
- Use of SO₂ prior to fermentation
- Use of enzymes and exogenous tannin additions in winemaking
- Monitoring and managing alcoholic fermentation rate

5 - Fermentation (Sept. 29)

- *Reading = (CWT – pg. 51-84)*
- Conditions that promote growth and health of commercial wine yeasts
 - Yeast hydration
 - Yeast inoculation
 - Yeast nutrition
 - Temperature control during fermentation
- Measuring yeast available nitrogen (YAN) in must prior to fermentation
- Monitoring yeast health & malolactic fermentation

6 - EXAM 1 (Oct. 6)

7 - Identification and Prevention of Wine Faults (Oct. 13)

- *Reading = (UWT – pg. 215-222)*
- Detecting Undesirable Aromas in Wine
 - Effects of yeast available nitrogen on wine quality
 - Microbial spoilage
 - Oxidation
- Winery sanitation
- Usefulness of sulfur dioxide in winemaking

8 - Cellar Operations (Oct. 20)

- *Reading = (CWT – pg. 87-124)*
- Various types of pumps used in winemaking
- Racking wine
- Fining and filtering wine

9 - Cellar Operations...continued (Oct. 27)

- *Reading = (CWT – pg. 87-124)*
- Blending and aging wine

10 - Cellar Operations...continued (Nov. 3)

- *Reading = (CWT – pg. 87-124)*
- Measuring and adjusting free SO₂ in aging wine
- Monitoring Volatile acidity in wine

11 - EXAM 2 (Nov. 10)

12 - Production of Sweet and Dessert Style Wines (Nov. 17)

- *Reading = (UWC – pg. 217-236)*
- *Reading = (UWC – pg. 237-254) = Organoleptic Evaluation of Dessert Wines*

- Grapes used for production of sweet and dessert style wines
- Producing sweet and dessert style wines

13 - Production of Sparkling Wine (Nov. 24)

- *Reading* = (UWC – pg. 179-198)
- *Reading* = (UWC – pg. 199-216) = Organoleptic Evaluation of Sparkling Wines
- General characteristics of grapes used for production of sparkling wines
- Different approaches to producing sparkling wine

14 - Production of Hard Cider (Dec. 1)

- *Reading* = See Handout
- Organoleptic Evaluation of Hard Cider
- Apple cultivars used for hard cider production
- Processing hard cider apples

15 - Cellar Operations...continued (Dec. 8)

- Bottling still wine
- Bottling sparkling wine
- Manual vs. automatic bottling lines

16 - Final Exam - TBA (Dec. 14-18)