



<b>SUBJECT</b>	<b>FIELD TRIP FEE   BIOLOGY</b>
<b>MEETING DATE</b>	<b>FEBRUARY 15, 2018</b>

Forwarded to the Board of Governors on the Recommendation of the President

**APPROVED FOR  
SUBMISSION**

Santa J. Ono, President and Vice-Chancellor

<b>DECISION REQUESTED</b>	<b>IT IS HEREBY REQUESTED that <i>the UBC Board of Governors approve an increase of fixed fees for UBC Okanagan's Special Topics in Biology class (BIOL 420D), effective for the 2018-2019 academic year, starting 2018S term.</i></b>
<b>Report Date</b>	January 19, 2018

**Presented By** Deborah Buszard, Deputy Vice-Chancellor and Principal  
 Cynthia Mathieson, Provost and Vice-Principal Academic  
 Hugh Brock, Associate Provost, Academic  
 Patricia Lasserre, Associate Provost, Enrolment & Academic Programs

**EXECUTIVE SUMMARY**

The Department of Biology in the Irving K. Barber School of Arts and Sciences offers an elective field course in Field Study of Wine Grape Production (BIOL 420D). This course provides a solid background on grapevine biology and basic knowledge on the major biological features of this crop and its cultivation in British Columbia.

The proposed additional fee for the 2018 Summer Term is \$75 per student. This cost is identical to the currently approved fees for two other elective field courses in the Department: Flora of British Columbia (BIOL 371) and Field Ornithology (BIOL 372).

**INSTITUTIONAL STRATEGIC PRIORITIES SUPPORTED**

- Learning
  - Research
  - Innovation
  - Engagement (Internal / External)
  - International
- or  Operational

**DESCRIPTION & RATIONALE**

The Canadian wine industry employs more than 31,000 people in Canada, welcomes more than 3 million tourists each year, and generates close to \$6.8 billion in revenue. British Columbia is the second-largest producer of grapes in Canada with an exponential growth of wineries from 17 wineries in 1990 to 273 wineries in 2014, with more than 75 varieties being cultivated in about 4,000 hectares of agricultural land.

This course provides a solid background on grapevine biology and basic knowledge on the major biological features this crops and its cultivation in British Columbia.

The course fee of \$75 covers group transportation for two field trips. The first trip is a half-day trip to local vineyards in the Kelowna, with an estimated total transportation cost of \$550 for the group.

The second field trip is a day-long trip to a vineyard in the Oliver area, with an estimated total transportation cost of \$1350.

Both field trips cost \$1900 which divided by 25 students is \$76. However, for simplicity, the fee will be rounded down to \$75 per student with the Department absorbing the remainder of the cost.

These estimates are based on the Department’s experiences over the past four years with similar field trips in our other summer field courses (BIOL 371, 372), and the first offering of this course during the 2017 summer. The additional fee for the two trips was not charged during the 2017S given that the student consultation could not be completed on time for the offering.

**BENEFITS**  
Learning, Research,  
Financial,  
Sustainability &  
Reputational

The fee will allow all students to visit two sites during the Field Study of Wine Grape Production course (BIOL 420D) to complement their learning from the course’ lectures.

Grapevine biology will benefit students who wish to pursue a career as viticulturists or winemakers, as well as those students who have an interest in learning how general principles of plant genetics, genomics, biology, and physiology are related to the production of grapes and other major berry crops.

Aligned with UBC Okanagan’s Aspire, this field trip fee will increase opportunities for students to have enriching educational experiences throughout their degree on our campus.

**RISKS**  
Financial,  
Operational &  
Reputational

Risk associated with the proposed field trip fee is minimal. The \$75 is small and should not result in exclusion of students from the courses for financial reasons. This fee is also in line with other courses already offered by the department and has been set for cost recovery.

The Department will not profit from this fee.

**SCHEDULE**  
Implementation  
Timeline

The \$75 fee for the optional course BIOL 420D will come into effect by the 2018S.

**CONSULTATION**  
Relevant Units,  
Internal & External  
Constituencies

A consultation with students began October 6th and closed November 10th. A meeting was also held on November 16th, 2017 between Dr. Bernard Momer, Associate Dean for the Irving K. Barber School of Arts and Sciences, and the Student Union’s president to discuss the field trip fee of \$75. The President of the Student Union Okanagan agreed to support this request.

Dear Trophy

The Department of Biology in the Irving K. Barber School of Arts and Sciences will offer a new elective field course in Field Study of Wine Grape Production (BIOL 420) during the summer of 2017. A consultation with various stakeholders on our campus is being conducted regarding a student fee that will be charged in addition to tuition to cover the cost of transportation. The proposed fee for BIOL 420 (\$75 per student) is identical to the currently approved fees in two of our other elective field courses: Flora of British Columbia (BIOL 371) and Field Ornithology (BIOL 372).

The \$75 additional fee for BIOL 420 specifically covers the cost for group transportation for two field trips to vineyards. One field site is in Kelowna, and the second is in Oliver. The fee does **not** include a charge for Teaching Assistant (TA) salaries or travel and subsistence costs for the course instructor or TA(s). The Department pays the latter costs as part of general operating expenses for course delivery.

Please note that the scope of this consultation process is limited to the fee proposal. The attached document outlines the consultation process, including:

- instructions to provide feedback
- Course syllabus for BIOL420
- the proposed fees and rationale for the fees
- Similar field course fees at UBCO

Students and student organizations can submit comments via e-mail or during a face-to-face meeting to be held on campus on a date to be determined in consultation with the UBCSUO. The consultation process will end 1 March 2017.

Please do not hesitate to contact us if you have any questions. Thank you.

Ian Cull  
Associate Vice President Students

Bernard Momer  
Associate Dean, Teaching Learning and Curriculum  
Irving K Barber School of Arts and Sciences

Michael Deyholos  
Head, Biology (Unit 2)  
Irving K Barber School of Arts and Sciences

## Section 1.0 – Feedback Instructions

The Office of the Associate Vice-President (Students), and only analysts within that office, will know the identity of individual students submitting comments. At no time will anyone outside the Office of the Associate Vice-President (Students) know the identity of individual students who submit comments to this consultation. Your comments will only be used for the purposes of the fee consultation. Comments from individual students will be stripped of any identifying information to ensure confidentiality, but otherwise will be provided verbatim to the Irving K. Barber School of Arts and Sciences, the Department of Earth, Environmental and Geographic Sciences, and the UBC Board of Governors.

Comments received from student organizations will be reported as coming from those organizations, and provided as received to the Irving K. Barber School of Arts and Sciences, the Department of Earth, Environmental and Geographic Sciences, and the UBC Board of Governors.

A summary report of the consultation process and outcomes will be prepared for the Irving K Barber School of Arts and Sciences, and the Board of Governors.

## Section 2.0 – BIOL 420D Course Syllabus

BIOL 420 (Draft)  
Special Topics in Biology: Field Study of Wine Grape Production  
2016-17 Summer Term  
9:00AM to 4:30PM, August ## - ##

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**Instructor:** Dr. Simone Diego Castellarin  
Room 211, FNH Bldg, 2205 East Mall  
Office phone: 604-827-2667  
Email: simone.castellarin@ubc.a

**Co-ordinator:** Dr. Mike Deyholos,  
SCI 156, Okanagan Campus  
Office phone: 250-807-8541  
Email: michael.deyholos@ubc.ca

### **Course Overview:**

Major viticultural issues related to grape and wine production, including: origin of the major wine grape varieties and rootstocks, morphological features of the grapevine, major training systems in the Okanagan Valley, berry composition in relation to wine quality, and the impact of terroir on grape and wine quality. Field trips and laboratory classes will provide hands on sessions on the topics described above.

### **Learning Objectives:**

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

1. Outline the morphological and genetic differences among wild and domesticated grapevines, cultivars, clones, and rootstocks.
2. Describe the major morphological features of cultivated grapevines, identifying how the morphological traits affect the way grapevines are cultivated.
3. Predict how the vegetative and reproductive growth cycles are affected by changes in environment.
4. Evaluate how major aspects of grapevine physiology (water and nutrient uptake, carbon uptake and assimilation, partitioning of assimilates) affect grapevine cultivation and fruit quality.
5. Critically evaluate the major determinants of yield formation and fruit quality in the vineyard.
6. Interpret how the biology that underlies fruit composition impacts grape and wine quality.

**Pre-requisites:** Any 200-level Biology course or permission of the instructor.

**Required textbook:** Required readings will include the course instructor's lecture notes and selected scientific papers (both will be posted on Connect).

**Optional book:**

Keller M (2010) The Science of the Grapevines: Anatomy and Physiology. Elsevier Inc, Burlington, MA, USA. (Optional)

**Evaluation Criteria and Grading:**

In-class assignments and quizzes	30%
Mini report	10%
Participation	10%
Midterm Exam	20%
Final Exam	<u>30%</u>
<b>TOTAL</b>	<b>100%</b>

Final grades will be based on the evaluations listed above and the final grade will be assigned according to the standardized grading system outlined in the UBC Okanagan Calendar. The Barber School reserves the right to scale grades in order to maintain equity among sections and conformity to University, faculty, department, or the school norms. Students should therefore note that an unofficial grade given by an instructor might be changed by the faculty, department, or school (<http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,41,90,1014>).

**Details of Assignments:**

**Mini Report:** The instructor will select one specific topic for the students to explore. Students will work individually. Students will research the most relevant scientific publications on the topic using search engines (Web of Science, Google Scholar, PubMed), read the abstracts of the publications and select two of them. The students are expected to carefully read the two articles and to prepare a two-page report (Times New Roman font, 12pt, 2.54 cm margins, single spaced). The report should identify the objectives of the studies, describe and compare the methodologies adopted to carry out the experiments, present and compare the results reported in the two articles. The second page should present a list of the most relevant publications on the topic (put an asterisk in front of the two articles that are

discussed in the report). The report should be sent via email to the Instructor before the due date.

**Midterm Exam and Final Exam:** Exams are closed book and based on material from assigned readings and from in-class activities. The exams will include a combination of multiple choice and short-answer questions. The final exam will be comprehensive, covering material presented throughout the term. However, topics explored after the midterm exam will be emphasized.

**Participation:** Class participation will be assessed using responses to questions. Points will be assigned for simply responding to questions.

**Outline:**

The following table provides a tentative schedule for the term and may be adjusted.

Day #	Activity	Topic
1	Lecture	Botanical classification and geographical distribution of the grapevine. American and Eurasian species. The domesticated grapevine. Genetic origin of rootstocks, cultivars and clones. Where and how the major cultivars were selected. Grapevine genomics.
2	Lecture & Laboratory	Morphological structures of the grapevine (roots, trunk, branches, shoots, leaf, tendril, growing tip, buds, flower, bunch, and berry). Sectioning and microscopy analyses of canes, shoots, buds.
3	Lecture & Laboratory	Grapevine vegetative cycle. Major phenological stages and climate requirements for vegetative growth. Grapevine reproductive cycle. Major phenological stages and climate requirements for reproductive growth.
4	Field Trip	Field trip to local vineyards and wineries.
5	Exam & Guest Lecture	Midterm exam and winemaking guest lecture.
6	Lecture	Grapevine yield determination. The biology that underlies yield formation in grapevine. Yield potential and its realization in the vineyard. Grapevine physiology. Managing water and nutrient uptake, transpiration, photosynthesis.
7	Lecture & Laboratory	Berry composition. Description of the major metabolic pathways that determine fruit quality in grapevine. Analysis of the molecular pathways that control phenolic and aroma accumulation in these crops. Sugar, acid, anthocyanin analyses in grapes
8	Lecture	Environmental cues and grape and berry crop production.

9	Field Trip	Field trip to vineyards in Oliver.
10	Final exam	Final exam and guest lecture on the BC wine industry.

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### **Missed Graded Work:**

Instructors are not required to make allowance for any missed test or incomplete work that is not satisfactorily accounted for. If ill health is an issue, students are encouraged to seek attention from a health professional. [Campus Health](#) and [Counselling](#) will normally provide documentation only to students who have been seen previously at these offices for treatment or counselling specific to conditions associated with their academic difficulties. Students who feel that requests for consideration have not been dealt with fairly by their instructors may take their concerns first to the Head of the discipline, and if not resolved, to the Office of the Dean. Further information can be found at:

<http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,48,0,0>.

### **Copyright Disclaimer:**

Diagrams and figures included in lecture presentations adhere to Copyright Guidelines for UBC Faculty, Staff and Students <http://copyright.ubc.ca/requirements/copyright-guidelines/> and UBC Fair Dealing Requirements for Faculty and Staff <http://copyright.ubc.ca/requirements/fair-dealing/>. All material uploaded to Blackboard Connect that contain diagrams and figures are used with permission of the publisher; are in the public domain; are licensed by Creative Commons; meet the permitted terms of use of UBC's library license agreements for electronic items; and/or adhere to the UBC Fair Dealing Requirements for Faculty and Staff.

Access to the Blackboard Connect course site is limited to students currently registered in this course. Under no circumstance are students permitted to provide any other person with means to access this material. Anyone violating these restrictions may be subject to legal action. Permission to electronically record any course materials must be granted by the instructor. Distribution of this material to a third party is forbidden.

### **Academic Integrity:**

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more



serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences. A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at: <http://okanagan.students.ubc.ca/calendar/index.cfm?tree=3,54,111,0>. If you have any questions about how academic integrity applies to this course, please consult with your professor.

**UBC Okanagan Disability Resource Centre:**

The Disability Resource Centre ensures educational equity for students with disabilities, injuries or illness. If you are disabled, have an injury or illness and require academic accommodations to meet the course objectives, please contact Earllene Roberts, the Diversity Advisor for the Disability Resource Centre located in Commons Corner in the University Centre building (UNC 227). **UNC 227A** 250.807.9263 Email: [earllene.roberts@ubc.ca](mailto:earllene.roberts@ubc.ca) Web: <http://students.ok.ubc.ca/drc/welcome.html>

**UBC Okanagan Equity and Inclusion Office:**

UBC Okanagan is a place where every student, staff and faculty member should be able to study and work in an environment that is free from discrimination and harassment. UBC prohibits discrimination and harassment on the basis of the following grounds: age, ancestry, colour, family status, marital status, physical or mental disability, place of origin, political belief, race, religion, sex, sexual orientation or unrelated criminal conviction. If you require assistance related to an issue of equity, discrimination or harassment, please contact the Equity and Inclusion Office or your administrative head of unit. **UNC 227C** 250.807.9291 Email: [equity.ubco@ubc.ca](mailto:equity.ubco@ubc.ca) Web: [www.equity.ok.ubc.ca](http://www.equity.ok.ubc.ca)

**Health & Wellness:**

At UBC Okanagan health services to students are provided by Health and Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus community. If you require assistance with your health, please contact Health and Wellness for more information or to book an appointment. **UNC 337** Email: [healthwellness.okanagan@ubc.ca](mailto:healthwellness.okanagan@ubc.ca) Web: [www.students.ok.ubc.ca/health-wellness](http://www.students.ok.ubc.ca/health-wellness)

**SAFEWALK** *Don't want to walk alone at night? Not too sure how to get somewhere on campus? Call Safewalk at 250.807.8076. For more information, see:* [www.security.ok.ubc.ca](http://www.security.ok.ubc.ca)

## Section 2.1 – BIOL 420 Fee Details and Rationale

### Course Overview

The wine grape is the most economically-important fruit crop on the planet. In Canada, the grape and wine industry has grown significantly in the past few decades, gaining both domestic and international recognition. Furthermore, the Canadian wine industry employs more than 31,000 people in Canada, welcomes more than 3 million tourists each year, and generates close to \$6.8 billion in revenue. British Columbia is the second largest producer of grapes in Canada. The number of BC wineries has grown exponentially from 17 wineries in 1990 to 273 wineries in 2014, with more than 75 varieties being cultivated in about 4,000 hectares of agricultural land.

This course will provide a solid background on grapevine biology and basic knowledge on the major biological features this crops and its cultivation in British Columbia. Grapevine biology will benefit students who wish to pursue a career as viticulturists or winemakers, as well as to students who have an interest in learning how general principles of plant genetics, genomics, biology, and physiology that they have learned in previous courses are related to the production of grapes and other major berry crops.

### Proposed Fee

In addition to tuition, the proposed fee for this course is \$75 CAD. The fee per student is based upon the following costs:

Group transportation rentals ..... \$ 75

**TOTAL: \$ 75**

### Rationale for Fee

The course fee covers group transportation for two field trips. The first trip is a half-day trip to local vineyards in the Kelowna, with an estimated total transportation cost of \$550 for the group. The second field trip is a day-long trip to a vineyard in the Oliver area, with an estimated total transportation cost of \$1350. Thus the total cost is \$1900/25 students = \$75 each. The estimates are based on our experiences over the past four years with similar field trips in our other summer field courses (BIOL 371, 372). The additional fee allows us to provide hands-on experiences in wine production areas to supplement the information presented in lecture.

### Additional Costs to Students

There are no other required additional costs for students. Students will be responsible for bringing or buying their own lunch on the field trip to Oliver.

### Fees for comparable field courses:

BIOL 371 Flora of BC (UBCO)

Includes two field trips with group transportation: one in the Kelowna area and the second to Apex Mountain. Fee is \$75.

BIOL 372 Field Ornithology (UBCO)

Includes two field trips with group transportation: one in the Kelowna area and the second to Osoyoos. Fee is \$75.

## STUDENT TUITION CONSULTATION

The University would like to gather your comments on the proposal for the Fee for Field Study of Wine Grape Production (BIOL 420). Below you will find:

- instructions to provide feedback
- an overview of the program
- the proposed tuition
- similar program fees in other Canadian universities

### Instructions

We are seeking comments from individual students and student organisation on campus. Please review and distribute the information below as you deem appropriate.

All comments should be sent to: [ian.cull@ubc.ca](mailto:ian.cull@ubc.ca) by November 10<sup>th</sup>, 2017.

If you have any questions about this consultation process, please contact the AVP Students Office: [ian.cull@ubc.ca](mailto:ian.cull@ubc.ca).

### Confidentiality

Comments will be collected by the Office of the Associate Vice-President (Students), and only analysts within that office will know the identity of individual students submitting comments. At no time will anyone outside of the Office of the Associate Vice-President (Students) know the identity of individual students who submit comments to this consultation. Your comments will only be used for the purposes of the tuition consultation. Comments from individual students will be stripped of any identifying information to ensure confidentiality, but otherwise will be provided to the responsible Faculties and the Board of Governors verbatim.

Comments received from student organizations will be reported as coming from those organizations, and provided to the responsible faculty and Board of Governors as received.

There will also be a summary report of the consultation developed for the Faculty of Critical and Creative Studies, the Irving K Barber School of Arts and Sciences, and Board of Governors.

### Program Overview

The Department of Biology in the Irving K. Barber School of Arts and Sciences will offer a new elective field course in Field Study of Wine Grape Production (BIOL 420) during the summer of 2017. A consultation with various stakeholders on our campus is being conducted regarding a student fee that will be charged in addition to tuition to cover the cost of transportation. The proposed fee for BIOL 420 (\$75 per student) is identical to the currently approved fees in two of our other elective field courses: Flora of British

Columbia (BIOL 371) and Field Ornithology (BIOL 372).

The \$75 additional fee for BIOL 420 specifically covers the cost for group transportation for two field trips to vineyards. One field site is in Kelowna, and the second is in Oliver. The fee does **not** include a charge for Teaching Assistant (TA) salaries or travel and subsistence costs for the course instructor or TA(s). The Department pays the latter costs as part of general operating expenses for course delivery.

## STUDENT TUITION CONSULTATION REPORT

The Associate Vice-President, Students Office, in partnership with the Irving K. Barber School of Arts and Sciences conducted a student consultation regarding the Field School Fee proposal for Field Study of Wine Grape Production (BIOL 420)

### **Student Representative Bodies Invited to the Consultation**

University of British Columbia Students' Union Okanagan

### **Mode of Consultation**

The consultation consisted of a face-to-face meeting with the Students' Union Executive. The Students Union was invited to the consultation through email, and asked to distribute the invitation to their constituents as they felt appropriate. We met with the Students Union on November 16, 2017. At this meeting all of the required Program information was shared.

**Basis of Consultation:** The consultation was based on a fee increase proposal and rationale document created by the Faculty.

**Summary of Student Feedback:** Submissions were requested from the University of British Columbia Students' Union Okanagan (UBCSUO). They were requested to have this to Ian Cull, AVPS on or before November 10, 2017.

On Thursday, November 16 we met with the President of the Students' Union and with Dr. Bernard Momer to hold the consultation on the proposed field school fees for Biology 420D. Dr. Momer explain that in the last academic year the Faculty covered the cost of transportation and Field School activities because the application to institute a fee was not completed the tuition consultation deadline. The faculty is now proposing to levy a \$75 Field School fee for the course Biology 420D. Dr. Momer reviewed the rationale for this fee and the President of the Student Union Okanagan agreed to support this request.

He was asked to provide written feedback to Ian Cull, Associate Vice President Students, as soon as possible.

To date the UBCSUO have not written to express their views in the proposal above, however the required consultation has taken place. We still hope to hear from them.