

725: SCIENCE AND TECHNOLOGY OF ALCOHOLIC BEVERAGES CERTIFICATE

In Workflow

1. APA Coordinator Programs (janice.nave-abele@oregonstate.edu)
2. Catalog Coordinator (belinda.sykes@oregonstate.edu)
3. Provost Designee (alix.gitelman@oregonstate.edu)
4. FST Head (lisbeth.goddik@oregonstate.edu)
5. Ecampus Programs (shannon.riggs@oregonstate.edu; ecampus.academicprograms@oregonstate.edu; kathryn.howard@oregonstate.edu)
6. 14 Day Review (none)
7. Paul Hughes (Food Science & Technology, Assistant Professor) (paul.hughes@oregonstate.edu)
8. Assessment Coordinator (heath.henry@oregonstate.edu)
9. 01 College Committee Approver (ricardo.matagonzalez@oregonstate.edu)
10. 01 Dean Designee (ricardo.matagonzalez@oregonstate.edu)
11. APA Coordinator Programs (janice.nave-abele@oregonstate.edu)
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13. Budgets and Fiscal Planning Committee Chair (frank.chaplen@oregonstate.edu)
14. Curriculum Council Co-Chairs (ping-hung.hsieh@bus.oregonstate.edu; iannie@oregonstate.edu)
15. Executive Committee (vickie.nunnemaker@oregonstate.edu)
16. Faculty Senate (vickie.nunnemaker@oregonstate.edu)
17. OSU Board of Trustees (janice.nave-abele@oregonstate.edu)
18. Statewide Provosts' Council Chair (janice.nave-abele@oregonstate.edu)
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20. NWCCU (janice.nave-abele@oregonstate.edu; joanne.bunnage@oregonstate.edu)
21. Catalog Coordinator (belinda.sykes@oregonstate.edu)

Approval Path

1. Tue, 29 Jun 2021 17:50:47 GMT
Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele): Rollback to Initiator
2. Tue, 02 Nov 2021 19:12:18 GMT
Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele): Approved for APA Coordinator Programs
3. Wed, 10 Nov 2021 04:03:38 GMT
Belinda Sykes (Office of the Registrar, Catalog & Curriculum Coordinator) (belinda.sykes): Approved for Catalog Coordinator
4. Wed, 10 Nov 2021 15:54:08 GMT
Alix Gitelman (Vice Provost for Academic Affairs) (alix.gitelman): Approved for Provost Designee
5. Wed, 10 Nov 2021 15:58:13 GMT
Lisbeth Goddik (Food Science & Technology, Department Head) (lisbeth.goddik): Approved for FST Head
6. Thu, 02 Dec 2021 16:45:20 GMT
powellma: Approved for Ecampus Programs
7. Fri, 17 Dec 2021 10:14:29 GMT
0/1 votes cast.
Yes: 0% No: 0%
Approved for 14 Day Review
8. Thu, 20 Jan 2022 19:41:30 GMT
Paul Hughes (Food Science & Technology, Assistant Professor) (paul.hughes): Approved for hughepau
9. Fri, 21 Jan 2022 17:52:03 GMT
Heath Henry (Academic Programs & Assessment, Assessment Coordinator) (heath.henry): Rollback to hughepau for APA Undergraduate Assessment
10. Tue, 09 Aug 2022 21:12:45 GMT
Paul Hughes (Food Science & Technology, Assistant Professor) (paul.hughes): Approved for hughepau
11. Tue, 16 Aug 2022 20:00:35 GMT
Heath Henry (Academic Programs & Assessment, Assessment Coordinator) (heath.henry): Approved for Assessment Coordinator
12. Thu, 06 Oct 2022 00:46:05 GMT
Ricardo Mata Gonzalez (Animal & Rangeland Sciences, Associate Professor) (ricardo.matagonzalez): Approved for 01 College Committee Approver
13. Mon, 31 Oct 2022 21:04:12 GMT

Ricardo Mata Gonzalez (Animal & Rangeland Sciences, Associate Professor) (ricardo.matagonzalez): Approved for 01 Dean Designee

14. Tue, 01 Nov 2022 18:41:49 GMT
Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele): Approved for APA Coordinator Programs
15. Mon, 14 Nov 2022 21:58:02 GMT
Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele): Approved for hughepau
16. Thu, 08 Dec 2022 16:28:28 GMT
Frank Chaplen (Biological & Ecological Engineering, Associate Professor, and Budgets & Fiscal Planning Committee Chair) (frank.chaplen): Rollback to hughepau for Budgets and Fiscal Planning Committee Chair
17. Sat, 25 Mar 2023 22:08:56 GMT
Paul Hughes (Food Science & Technology, Assistant Professor) (paul.hughes): Approved for hughepau
18. Wed, 19 Apr 2023 00:12:22 GMT
Frank Chaplen (Biological & Ecological Engineering, Associate Professor, and Budgets & Fiscal Planning Committee Chair) (frank.chaplen): Approved for Budgets and Fiscal Planning Committee Chair
19. Mon, 08 May 2023 17:28:30 GMT
Ping-Hung Hsieh (College of Business, Professor, and Curriculum Council Co-Chair) (ping-hung.hsieh): Approved for Curriculum Council Co-Chairs
20. Thu, 01 Jun 2023 20:50:48 GMT
Vickie Nunnemaker (Faculty Senate, Special Assistant to the Faculty Senate President) (vickie.nunnemaker): Approved for Executive Committee

New Program Proposal

Date Submitted: Tue, 26 Oct 2021 21:21:09 GMT

Viewing : Science and Technology of Alcoholic Beverages Certificate

Last edit: Fri, 24 Mar 2023 23:39:14 GMT

Changes proposed by: hughepau

Proposal

Effective Term

Fall 2022

Justification

At OSU we have unique capabilities to deliver education across the whole range of alcoholic beverages, ie wine, beer, spirits and cider. With the increasing diversity of the alcoholic drinks sector and blurring of lines between traditional categories, we are in a position to exploit our core competences on state, national and international stages. A number of courses germane to this proposed program have already been converted into Ecampus offerings (eg FST251, FST437/537) with the expectation of completing our rolling program of full Ecampus development.

Primary Originator

Name

Zhenglun Li (Food Science & Technology, Instructor)

Liaisons

Academic Unit

Chemistry (CH)

Biochemistry & Biophysics (BB)

Integrative Biology (BI, IB, Z)

Microbiology (BHS, MB)

College of Business - Undergraduate (BA, HM)

School of Biological & Population Health Sciences (AT, HHS, KIN, NUR, NUTR, PT)

School of Social & Behavioral Health Sciences (HDFS)

College of Public Health & Human Sciences (H)

Program Information

Program Level

Undergraduate

Program Type

Certificate

Name

Science and Technology of Alcoholic Beverages Certificate

CIP Code

011099 - Food Science and Technology, Other.

College

Agricultural Sciences (01)

Academic Unit

Food Science & Technology

Is this program jointly administered?

No

Date the Early Alert was submitted for this proposal

6/27/2020

What degree types are available for this undergraduate program?

Certificate

Is this certificate available as standalone?

Yes

Do you want this standalone certificate to be eligible for financial aid?

Yes

Campus Locations

Ecampus

Is this program currently or planned to be offered in hybrid format?

No

Will this program lead to professional licensure in any U.S. state or territory?

No

Executive Summary**Executive Summary**

The Department of Food Science and Technology (FST) proposes a new undergraduate certificate program in the science and technology of alcoholic beverages that will provide students with a focused exploration of the scientific and technological aspects of this burgeoning business sector. The proposed course of study totals at least 27 credit hours drawn substantially from the germane existing and proposed future Ecampus courses that are being developed within FST.

This undergraduate certificate program will support a growing interest in the alcoholic beverages sector. Uniquely OSU boasts faculty and industrial experience in all of the major alcohol categories, which is unparalleled in any other English-speaking program. By providing a certificate with focus on "alcoholic beverages" rather than specific categories, students will better understand the general, over-arching principles of alcohol production. No potentially competitive programs have the opportunity to deliver across the whole sector.

Currently, within Oregon there are in excess of 70 distilleries, 700 wineries, 60 cider-makers and 300 breweries, with a vibrant workforce across the whole supply chain. Existing programs in the beer, wines, ciders and spirits sectors continue to attract substantial enrollments.

HECC - Higher Education Coordinating Commission**Program Description****HECC Description**

A focused program that compares and contrasts the various sectors of the alcoholic beverages industry from a science and technology perspective, from raw materials to final product and concluding with an overview of relevant aspects of sustainability and an introduction to supply chain considerations.

Brief overview of the proposed program, including its disciplinary foundations and connections; program objectives; programmatic focus; degree, certificate, minor, and concentrations offered

The program will explore the science and technology of alcoholic beverage production, building on established 400-level offers in beer, wines, distilled spirits and cider to provide a uniquely comprehensive certificate.

Manner in which the program will be delivered, including program location (if offered outside of the main campus), course scheduling, and the use of technology (for both on-campus and off-campus delivery)

The certificate program will be offered exclusively via Ecampus, with all courses prepared to Ecampus rules and guidelines.

Adequacy and quality of faculty delivering the program

All existing and new coursework will be delivered by existing faculty. Indeed all of the existing and new coursework will have been developed by existing faculty.

Faculty CVs are available on request.

Adequacy of faculty resources – full-time, part-time, adjunct

All faculty required to deliver the undergraduate certificate program are 1.0 FTE (nine-month and 12-month) appointments. When new coursework needs to be delivered, and as enrollment in the program grows, we will add faculty resources to deliver the coursework using the appropriate academic and professional faculty guidelines.

Other staff

The advising resources for the admitted students are the same as for the existing FST programs. In accordance with University guidelines, we would seek to hire additional academic advisors as the total number of enrolled students in all of the FST programs increase.

Adequacy of facilities, library, and other resources

Current facilities and resources are adequate to support the proposed undergraduate certificate program.

Relationship to Mission and Goals

Manner in which the proposed program supports the institution’s mission, signature areas of focus, and strategic priorities

The fermentation program is specifically called in OSU SP 4.0. as an item within advancing economic prosperity and social progress: “Our fermentation program is recognized internationally, and builds thriving business partnerships.” This Ecampus Certificate will promote growth of our fermentation program beyond Oregon and continue to bring international recognition.

In addition, the fermentation program fits within two of the CAS four priority pillars as Food Innovation for Health, Markets and Accessibility and Agricultural Competitiveness.

Within FST, the fermentation program remains the most popular option within our undergraduate program and this certificate is a natural extension of current programming.

Manner in which the proposed program contributes to institutional and statewide goals for student access and diversity, quality learning, research, knowledge creation and innovation, and economic and cultural support of Oregon and its communities

This program is offered via Ecampus, therefore it will be accessible throughout Oregon’s communities. Equally importantly, this program will have statewide impact because graduates will support economic development throughout the state as they create quality beer, wine, and spirits companies throughout Oregon. The economic impact of Oregon’s wineries, breweries, cideries, and distilleries in urban and rural settings throughout our state is significant. From a winery in LaFayette to a brewery in Joseph, we see numerous examples of the impact of the fermentation industry on underserved communities. Our proposed certificate will support continued strength in this important industry.

Manner in which the program meets regional or statewide needs and enhances the state’s capacity to:

Improve educational attainment in the region and state:

The OSU Food Science & Technology Department is the only program in the US that provides training in all types of alcoholic beverages. Oregon currently has over 700 wineries, 200+ breweries, 60+ cider-makers and 70+ distilleries. We will contribute to develop the workforce for these companies. Many of our graduates create their own companies such as brewpubs. This certificate would provide a unique background for entrepreneurs in the fermented beverage category .

Respond effectively to social, economic, and environmental challenges and opportunities:

As stated above, it is likely that some graduates from this program will develop alcoholic beverage companies throughout the state including in underserved communities. This will help develop sustainable rural economies. The Certificate also includes a course in sustainable food manufacturing. This class prepares students to identify ways to produce food and beverages with a minimum environmental impact utilizing less raw materials, water, energy, and chemicals and less waste.

Address civic and cultural demands of citizenship

Oregon State University has established professional behavior standards that are strictly enforced across all colleges and departments (see URL

[h#ps://apa.oregonstate.edu/academic-programs/academic-policies-and-procedures](https://apa.oregonstate.edu/academic-programs/academic-policies-and-procedures)).

Accreditation

Accrediting body or professional society that has established standards in the area in which the program lies, if applicable

NA

Ability of the program to meet professional accreditation standards. If the program does not or cannot meet those standards, the proposal should identify the area(s) in which it is deficient and indicate steps needed to qualify the program for accreditation and date by which it would be expected to be fully accredited

NA

If the proposed program is a graduate program in which the institution offers an undergraduate program, proposal should identify whether or not the undergraduate program is accredited and, if not, what would be required to qualify it for accreditation

NA

If accreditation is a goal, the proposal should identify the steps being taken to achieve accreditation. If the program is not seeking accreditation, the proposal should indicate why it is not

NA

Need

Anticipated fall term headcount, FTE enrollment, and expected degrees/certificates produced over each of the next five years

Year One:

Fall Term Headcount:

20

FTE Enrollment:

8

Expected Degrees/Certificates

0

Year Two:

Fall Term Headcount:

25

FTE Enrollment:

18

Expected Degrees/Certificates:

0

Year Three:

Fall Term Headcount:

40

FTE Enrollment:

34

Expected Degrees/Certificates

20

Year Four:

Fall Term Headcount:

50

FTE Enrollment:

54

Expected Degrees/Certificates

25

Year Five:

Fall Term Headcount:

65

FTE Enrollment:

80

Expected Degrees/Certificates

40

Characteristics of students to be served (resident/nonresident/international; traditional/ nontraditional; full-time/part-time, etc.)

The proposed certificate is expected to be available to students world-wide, with Ecampus delivery allowing for asynchronous delivery. Students are expected to progress at their own rate, although 27 credits need to be completed within seven years.

Evidence of market demand

Since the development of the fermentation science program, many students have become professionals in the alcoholic beverage sector, in small enterprises, such as Gilgamesh Brewery and Anheuser-Busch.

As the former director of the on-campus and distance-learning programs at Heriot-Watt University, Scotland, we grew the on campus programs by three-fold to a cap of 70 (around 50% paying international fees) and 200 distance-learning students (equivalent to around 50 FTE) and a combined revenue in excess of 1,000,000 GBP. The Institute of Brewing and Distilling examines several hundred students annually across their suite of brewing and distilling qualifications. With strategic marketing activity, we contend that the predicted fall-term headcounts given above are realistic and may be overly conservative.

If the program's location is shared with another similar Oregon public university program, the proposal should provide externally validated evidence of need (e.g., surveys, focus groups, documented requests, occupational/employment statistics and forecasts)

NA

Estimate the prospects for success of program graduates (employment or graduate school) and consideration of licensure, if appropriate. What are the expected career paths for students in this program?

Students that successfully complete this program will be well-prepared for employment in the sector and should be expected to make value-added contributions in the workplace. Furthermore as the course can be made available to those already in industry with a desire for professional development, we have the opportunity to contribute to both a new labor pool and existing labor, in the State, US and internationally.

Outcomes and Quality Assessment**Expected learning outcomes of the program**

Students will be able to:

- Identify and explain essential foundational principles in alcoholic beverages chemistry, analysis, alcoholic beverage safety, microbiology and alcoholic beverage production
- Demonstrate the ability to integrate and apply scientific principles to describe and solve problems in alcoholic beverages
- Effectively express themselves orally, graphically, and in writing
- Engage in activities that enhance their professionalism and leadership skills

Methods by which the learning outcomes will be assessed and used to improve curriculum and instruction

Programmatic learning outcomes are delineated in the learning outcomes of individual courses. Student performances will be measured in all courses within the curriculum, from which evidence to be assembled to assess the efficacy of the curriculum as a whole and to identify opportunities for continued improvement.

Nature and level of research and/or scholarly work expected of program faculty; indicators of success in those areas

The College of Agricultural Sciences sets expectations for the nature and level of research and/or scholarly activity of program faculty. The Associate Dean for Research evaluates all tenure/tenure-track faculty on an annual basis to ensure they are meeting our expectations for scholarly work. The proposed certificate will not impact these expectations.

Program Integration and Collaboration**Closely related programs in this or other Oregon colleges and universities**

Chemeketa and Umpqua Community Colleges, Linfield College and Southern Oregon University all offer courses on aspects of wine production and business management. Professor Mellie Pullman (PSU) has been active in the study of the craft beer and brewing business.

Ways in which the program complements other similar programs in other Oregon institutions and other related programs at this institution. Proposal should identify the potential for collaboration

The proposed program is unique in that it addresses all of the major alcoholic beverages sector. However, as courses are offered at 200 - 400 level, some if not all can be made available for students in other institutions.

If applicable, proposal should state why this program may not be collaborating with existing similar programs

NA

Potential impacts on other programs

By establishing this program with Ecampus, students studying at other institutions (within and beyond Oregon) will have the opportunity to broaden their education options.

Program Learning Outcomes (click the green plus button to add learning outcome)**Learning Outcome**

Identify and explain essential foundational principles in alcoholic beverages chemistry, analysis, alcoholic beverage safety, microbiology and alcoholic beverage production

Expected reporting year (all outcomes must be assessed within a 5 year period)

2024

List courses where this outcome will be taught

FST251, FST273, FST437, FST438, FST460, FST463, FST466, FST467

Assessment measures used to assess the outcome. Label each measure as either direct (D) or indirect (I)

Mid-term quizzes (200 level courses, D)

Mid-term papers (400 level courses, D)

Final examinations (400 level courses, D)

Benchmarks of success used to determine if the outcome has been satisfactorily met by students

60% pass-rate

Learning Outcome

Demonstrate the ability to integrate and apply scientific principles to describe and solve problems in alcoholic beverages.

Expected reporting year (all outcomes must be assessed within a 5 year period)

2024

List courses where this outcome will be taught

FST437, FST438, FST460, FST463, FST466, FST467

Assessment measures used to assess the outcome. Label each measure as either direct (D) or indirect (I)

Mid-term papers (D)

Benchmarks of success used to determine if the outcome has been satisfactorily met by students

60% pass-rate

Learning Outcome

Effectively express themselves orally, graphically, and in writing

Expected reporting year (all outcomes must be assessed within a 5 year period)

2025

List courses where this outcome will be taught

FST438, FST463 or FST467

Assessment measures used to assess the outcome. Label each measure as either direct (D) or indirect (I)

Create a themed poster, assessed on presentation, technical content and accuracy

Benchmarks of success used to determine if the outcome has been satisfactorily met by students

60% pass-rate

Learning Outcome

Engage in activities that enhance their professionalism and leadership skills

Expected reporting year (all outcomes must be assessed within a 5 year period)

2025

List courses where this outcome will be taught

FST437, FST460, FST466

Assessment measures used to assess the outcome. Label each measure as either direct (D) or indirect (I)

Active participation in discussion boards embedded in the above courses

Benchmarks of success used to determine if the outcome has been satisfactorily met by students

60% pass-rate

Information for the Catalog**How many total credits are required for completion of this program?**

27

Catalog Description (this will display on the Overview tab in the Catalog)

This certificate in alcoholic beverages focuses on introducing the major alcoholic beverage sectors (beer, wine, distilled spirits, cider) primarily from scientific and technological perspectives. The certificate curriculum will explore topics both germane to a specific sector and, uniquely, where there are cross-overs between sectors (e.g. cider and wine-making). Successful completion of the certificate will enable graduates new to the alcohol sector to build a career in the industry. Personnel currently employed in the sector will also be able to complete this certificate as part of their ongoing professional development.

Requirements (this will display on the Requirements tab in the Catalog and be coded into MyDegrees)

Some of the courses required for the Science and Technology of Alcoholic Beverages certificate have additional prerequisites or grade requirements that are separate from the certificate requirements.

Code	Title	Credits
Required Core		
FST 251	INTRODUCTION TO WINES, BEERS, AND SPIRITS	3
FST 410	INTERNSHIP	3
FST 437	CHEMISTRY AND BIOCHEMISTRY OF DISTILLED SPIRITS	3
FST 439	PRODUCTION AND ANALYSIS OF DISTILLED SPIRITS	2
FST 460	CHEMISTRY AND BIOCHEMISTRY OF BEER	3
FST 466	CHEMISTRY AND BIOCHEMISTRY OF WINE	3
FST 463	PRODUCTION AND ANALYSIS OF BEER	2
FST 469	PRODUCTION AND ANALYSIS OF WINE	2
FST 479/MB 479	FERMENTATION MICROBIOLOGY	3
Electives		
Select a minimum of three credits from the following:		3
FST 212	DAIRY PROCESSING	
FST 273	*WINE IN THE WESTERN WORLD	
FST 285	*CULINARY CHEMISTRY	
FST 327	INTRODUCTION TO SUSTAINABLE FOOD PROCESSING	
FST 430	INNOVATION AND FOOD PRODUCT DEVELOPMENT	
FST 375	FOOD SAFETY AND QUALITY ASSURANCE	
H 225	*SOCIAL AND INDIVIDUAL HEALTH DETERMINANTS	
H 364	DRUGS, SOCIETY, AND BEHAVIOR	
NUTR 240	HUMAN NUTRITION	

Total Credits**27**

*

Baccalaureate Core Course (BCC)

Letters of Support**External Letters of Support**Letter of support - Sidor.pdf
Paul Meade letter.docx**Accessibility Form****Accessibility Guidelines**

I have reviewed the listed documents

Faculty Guidelines

I have reviewed the listed documents

Information Technology Guidelines

I have reviewed the listed documents

By submitting this form, we affirm that we have reviewed the listed documents and will apply a good faith effort to ensure accessibility in curricular design, delivery, and supporting information.

Library Evaluation

Will this program require the creation of new courses?

No

Faculty CVs

I will provide individual CVs if requested by Faculty Senate Curriculum Council

Acknowledge

Enter faculty below: (click the green plus button to add faculty members)

Faculty Name	Academic Home	Highest Degree	Position Title	Area of Expertise/ Interest	Role Within Program
Christopher Curtin	FST	PhD	Assistant professor	Beer, wine	Instruction
Lisbeth Goddik	FST	PhD	Professor	Dairy	Instruction
Paul Hughes	FST	PhD	Assistant professor	Beer, distilled spirits	Instruction/ program lead
Zhenglun ("Glen") Li	FST	PhD	Instructor/ advisor	Beer, wine	Instruction
James Osborne	FST	PhD	Associate professor	Wine	Instruction
Neil Shay	FST	PhD	Professor	Nutrition	Instruction
Thomas Shellhammer	FST	PhD	Professor	Beer	Instruction
Elizabeth Tomasino	FST	PhD	Associate professor	Wine	Instruction
Yanyun Zhao	FST	PhD	Professor	Sustainability	Instruction
Michael Penner	FST	PhD	Associate professor	Culinary chemistry	Instruction

Budget Information**Budget Worksheet and Narrative**

Signed_Science__Technology_of_Alcoh.pdf

Reviewer Comments

Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele) (Mon, 28 Jun 2021 21:19:27 GMT): Updated formatting using CIM tool.

Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele) (Tue, 29 Jun 2021 17:50:47 GMT): Rollback: Rolled back for updates and edits (see email sent today, 6/29/21).

Belinda Sykes (Office of the Registrar, Catalog Curriculum Coordinator) (belinda.sykes) (Wed, 10 Nov 2021 06:55:14 GMT): To meet the interdisciplinary certificate requirement, the originators decided to add electives from the College of Public Health & Human Sciences to the program. Liaisons from that college have been added. I have also added the College of Business as a liaison because they offer a Hospitality major. The Space Evaluation is being skipped in workflow because this program is 100% online.

Kevin Gable (Chemistry, Professor) (kevin.gable) (Thu, 02 Dec 2021 16:47:24 GMT): No comments

Lisbeth Goddik (Food Science Technology, Department Head) (lisbeth.goddik) (Thu, 02 Dec 2021 16:50:09 GMT): This certificate builds on the strengths of the FST program and allows us to reach a much broader audience

Kari van Zee (Biochemistry Biophysics, Lead Advisor) (vanzeek) (Thu, 02 Dec 2021 17:23:38 GMT): Biochemistry and Biohysics supports this Certificate. No concerns

Brock McLeod (Integrative Biology, Coordinator of Undergraduate Success Engagement) (Brock.McLeod) (Thu, 02 Dec 2021 17:59:11 GMT): No concerns.

Linda Bruslind (Microbiology, Lead Advisor) (bruslindl) (Thu, 02 Dec 2021 20:38:50 GMT): No concerns.

Prem Mathew (College of Business, Associate Dean of Undergraduate Programs) (prem.mathew) (Tue, 07 Dec 2021 19:05:54 GMT): The COB has no concerns.

Ellen Smit (College of Public Health Human Sciences, Associate Dean of Academic Faculty Affairs) (ellen.smit) (Thu, 09 Dec 2021 21:30:17 GMT): No concerns

Heath Henry (Academic Programs Assessment, Assessment Coordinator) (heath.henry) (Fri, 21 Jan 2022 17:52:03 GMT): Rollback: Different learning outcomes are listed in different parts of the form. While there are some similarities, there are strong differences between the two lists. For example, there are 3 learning outcomes listed in the Outcomes and Quality Assessment section and 4 learning outcomes listed in the Program Learning Outcomes section. Please update the proposal to align the sections.

Janice Nave-Abele (Curriculum Management, Curriculum Coordinator) (janice.nave-abele) (Tue, 01 Nov 2022 18:41:17 GMT): Heath Henry, Assessment Reviewer, approved updated program learning outcomes on August 16, 2022 (see workflow history).

Frank Chaplen (Biological Ecological Engineering, Associate Professor, and Budgets Fiscal Planning Committee Chair) (frank.chaplen) (Thu, 08 Dec 2022 16:28:28 GMT): Rollback: Proposal needs budget narrative and spreadsheet. Please provide these documents for consideration by the Budget & Fiscal Planning Committee.

Belinda Sykes (Office of the Registrar, Catalog Curriculum Coordinator) (belinda.sykes) (Mon, 01 May 2023 04:07:55 GMT): Paul Hughes has advised that Zhenglun Li will now be responsible for this proposal.

Key: 725