

**SENATE RESOLUTION #2785**

**TITLE:** ASUW Support for the Creation of a Graduate  
Certificate in Community & Public Health

**DATE INTRODUCED:** February 8, 2022

**AUTHOR:** President Swilling

**SPONSORS:** Senators Ewalt, Rhymes, and Smith



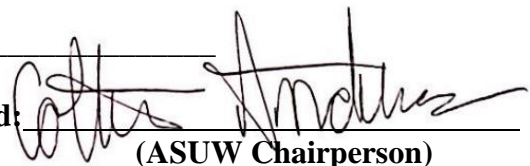
1. WHEREAS, the purpose of the Associated Students of the University of Wyoming (ASUW)
2. Student Government is to serve our fellow students in the best manner possible; and,
3. WHEREAS, the University of Wyoming Board of Trustees approved a Notice of Intent
4. for the creation of a Graduate Certificate in Community & Public Health at the University of
5. Wyoming (UW) on September 16, 2021, as shown in Addendum A; and,
6. WHEREAS, this certificate would allow students to earn either a 12-credit University
7. Graduate Certificate in Community & Public Health or a 15-credit University Graduate
8. Certificate in Community & Public Health, Specializing in [Specialization Name].
9. Specialization options will include rural health, emergency response management, Native
10. American health, and food systems; and,
11. WHEREAS, this would consist of four core courses, totaling 12 credits, in the foundational
12. concepts of epidemiology, and program development, support, and evaluation; and,
13. WHEREAS, a formal public health curriculum is currently not available at UW or elsewhere
14. in the state; and,
15. WHEREAS, this proposed Graduate Certificate will expand course offerings and make
16. UW's newly created public health program available to students well beyond UW's existing
17. student body; and,
18. WHEREAS, in addition to benefiting individuals beyond the current student body courses
19. developed as part of this certificate program will also benefit a wider audience of UW

20. students, including those in the Biomedical Sciences, who are required to take an
21. epidemiology course, and those in the College of Health Sciences who wish to
22. expand their public health knowledge; and,
23. WHEREAS, the need for individual institutions and local governments to now manage the
24. COVID-19 pandemic is an unfortunately apt example of why public health training is
25. essential in our communities; and,
26. WHEREAS, according to the CDC, only 20-25% of our national public
27. health workforce has graduated from an accredited school or program of public health; and,
28. WHEREAS, by training rural public health practitioners across the country, this certificate
29. would help address critical unmet public health needs nationwide; and,
30. WHEREAS, the feasibility study in Addendum B, shows that student demand for this
31. program was in the 100<sup>th</sup> percentile, and employment demand in the 76<sup>th</sup> percentile; and,
32. WHEREAS, the budget, as shown in Addendum C, shows that this program would generate
33. a consistent revenue surplus due to high student demand.
34. THEREFORE, be it resolved that the Associated Students of the University of Wyoming
35. Student Government (ASUW) recognizes this critical gap in our educational
36. offerings, and fully supports the creation of a Graduate Certificate in Community & Public
37. Health; and,
38. THEREFORE, be it further resolved that ASUW thanks all those who helped create this
39. plan.

**Referred to:** Advocacy, Diversity, and Policy

**Date of Passage:** February 15<sup>th</sup>, 2022

**Signed:**

  
(ASUW Chairperson)

**“Being enacted on** February 15<sup>th</sup>, 2022 **, I do hereby sign my name hereto**

PASSED 23-1

and approve this Senate action.”

  
ASUW President

## Addendum A

**AGENDA ITEM TITLE:** Notice of Intent, Graduate Certificate in Community & Public Health, Ahern

**SESSION TYPE:**

- ☐ Work Session
- ☐ Education Session
- ☐ Information Item
- ☒ Other:

[Committee of the Whole – Items for Approval]

☐ *Attachments are provided with the narrative.*

**APPLIES TO STRATEGIC PLAN:**

☐ Yes (select below):

- ☐ Driving Excellence
- ☐ Inspiring Students
- ☒ Impacting Communities
- ☐ High-Performing University

☐ No [Regular Business]

**EXECUTIVE SUMMARY:**

The Division of Kinesiology & Health (DK&H) proposes an online, asynchronous University Graduate Certificate in Community & Public Health (CPH). Students in the certificate program will complete four, three-credit courses [the “core” classes]:

- HLED 5022: Unlocking the Potential of Public Health. C&I approved course, first version was offered Fall 2020.
- HLED 5023: Using Epidemiology to Build Healthier Communities. C&I approved course, first version was offered Spring 2020.
- HLED 5021: Creating Conditions for Community Health. C&I approved course, first version was offered Fall 2016.
- HLED 5024: Increasing Support for Public Health Projects. Course pending C&I review of CARF. First offering proposed for Spring 2021.

In addition to these four core courses, we propose to give students the option to add a 3-credit specialization to their certificate. Thus, students could either earn a 12-credit University Graduate Certificate in Community & Public Health or a 15-credit University Graduate Certificate in Community & Public Health, Specializing in [Specialization Name]. Specialization options will include rural health, emergency response management, and food systems.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

None.

**WHY THIS ITEM IS BEFORE THE BOARD:**

University of Wyoming Regulation 2-119 requires that the Board approve all new degree programs, and lays out the process for that approval. The Academic and Student Affairs committee will report to the Board on recommended action for approval of the new degree program.

**ACTION REQUIRED AT THIS BOARD MEETING:**

Consideration for approval of the Notice of Intent, Graduate Certificate in Community & Public Health.

**PROPOSED MOTION:**

“I move to authorize administration to approve the Notice of Intent for the Graduate Certificate in Community & Public Health.

**PRESIDENT’S RECOMMENDATION:**

The President recommends approval.

## **Notice of Intent: Proposed University Graduate Certificate in Community & Public Health**

Drafted using the outline provided for UW's [New Degree and Certificate Proposal Process](#).

**A) Name:** The Division of Kinesiology & Health (DK&H) proposes an online, asynchronous *University Graduate Certificate in Community & Public Health (CPH)*.

**B) Outline of the anticipated curriculum and learning outcomes:** **Students in the certificate program will complete four, three-credit courses** [the “core” classes]:

1. **HLED 5022: Unlocking the Potential of Public Health.** C&I approved course, first version was offered Fall 2020.

Learning objectives: 1) Explain public health history, philosophy and values. 2) Identify the core functions of public health and the 10 Essential Services. 3) Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health. 4) List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program. 5) Discuss the science and examples of primary, secondary and tertiary prevention in population health. 6) Explain the critical importance of evidence in advancing public health knowledge. 7) Identify determinants of health throughout the socio-ecological model 8) Discuss ways that globalization affects global burdens of disease. 9) Describe and discuss an ecological perspective on the connections among human health, animal health and ecosystem health (One Health).

2. **HLED 5023: Using Epidemiology to Build Healthier Communities.** C&I approved course, first version was offered Spring 2020.

Learning objectives: 1) Define epidemiology. 2) Understand the relevance of epidemiological data in decision-making at the community level. 3) Correctly interpret the results of epidemiological studies. 4) Find epidemiological evidence that is relevant to a chosen topic. 5) Assess the quality of available epidemiological evidence.

3. **HLED 5021: Creating Conditions for Community Health.** C&I approved course, first version was offered Fall 2016.

Learning objectives: 1) Define and describe the discipline and roles of public health in the US. 2) Discuss social determinants of health and health inequities in the US. 3) Describe the socio-ecological model of public health. 4) Describe the prevalence, trends, and consequences of a health issue you select that is an issue in your community. 5) Discuss the rationale for and process of applying an ecological approach for planning health interventions. 6) List key child and adult behaviors contributing to excessive weight gain in children and to your selected health issue. 7) Use the literature to assess environmental factors contributing to excessive weight gain in children and to your selected health issue. 8) Use the literature to assess and prioritize predisposing, enabling, and reinforcing factors related to excessive weight gain in children and to your selected health issue. 9) Discuss the rationale and approaches for building and facilitating effective collaborations for addressing community health issues. 10) Identify appropriate intervention methods and strategies for addressing priority predisposing, enabling, and



reinforcing factors contributing to excessive weight gain in children and to your selected health issue. 11) Develop an action plan for addressing your chosen health issue in your community.

**4. HLED 5024: Increasing Support for Public Health Projects.** Course pending C&I review of CARF. First offering proposed for Spring 2021.

Learning objectives: 1) Identify achievable public health goals. 2) Identify and connect with community shareholders to achieve public health goals. 3) Learn ways to build partnerships and coalitions. 3) Learn how to successfully incorporate community members in project planning and decision making. 4) Practice public health communication skills. 5) Develop preliminary budgets and identify potential funding sources.

In addition to these four core courses, we propose to give students the option to add a 3-credit specialization to their certificate. Thus, students could either earn a 12-credit *University Graduate Certificate in Community & Public Health* or a 15-credit *University Graduate Certificate in Community & Public Health, Specializing in [Specialization Name]*. Specialization options will include rural health, emergency response management, and food systems.

C) How the Academic Program may relate to other offerings: A formal public health curriculum is not available at UW or elsewhere in the state. In addition to occasional seminars and the courses above, DK&H currently offers the following community and public health courses: HLED 3020 Community and Public Health, HLED 4005 Global Health, HLED 4020/5020 Food, Health & Justice, and HLED 3025 Emergency Preparation & Management. Kinesiology & Health students in the Master of Science program have the option to concentrate in Community & Public Health by taking these courses, seminars, and courses offered in other departments and schools. This proposed Graduate Certificate will expand course offerings, formalize this study concentration for DK&H students, and make our public health program available to students well beyond UW's existing student body. Courses developed as part of this certificate program will also benefit a wider audience of UW students, including those in the Biomedical Sciences, who are required to take an epidemiology course, and those in the College of Health Sciences who wish to expand their public health knowledge.

D) Plan for obtaining a market analysis of anticipated student demand and enrollment, and a plan for evaluation and analysis of post-graduation employment market demand: We are working with Jayne Pearce in the Office of Distance Education to compile nationwide data from the Gray Associates database. In Wyoming, DK&H found nearly unanimous support for a formal, online public health program among the 52 public health professionals we surveyed in 2014. Our survey further found that 37% of WY's public health professionals do not have formal training in public health. At the same time, we surveyed existing students and found an unmet demand for additional public health training within the UW community. To evaluate success of our students after earning the proposed Graduate Certificate in CPH, we plan to augment standard alumni networking and follow-up procedures. We are working with the Advising • Career • Exploratory

Studies Center to increase overall DK&H participation in First Destination Surveys. The existing CPH staff has the capacity to gather additional data, specific to certificate alumni, as needed.

E) Preliminary budget: The DK&H has budgeted the proposed *University Graduate Certificate in Community & Public Health* as part of our overall CPH program. There are immediate cost savings attached to the proposed certificate via the new lecturer positions associated with it. These positions will allow us to avoid hiring adjunct instructors and are projected to generate net income by Year 3. Please see full budget details and assumptions in the attached Appendix.

**Summary of Projected CPH Program Expenses:**

- Year 1 = \$120,372: One FT Academic Professional Lecturer at \$80,248 (salary and fringe) and one 50% (starting mid-year) APL at \$40,124 (salary and fringe)
- Year 2-5 = \$160,496 annually: Two FT Academic Professional Lecturers at \$80,248 each (salary and fringe).

**Summary of Projected CPH Program Revenue:**

- Year 1 = \$117K - \$143K from tuition
- Year 2 = \$143- \$169K from tuition
- Year 3 = \$163K - \$189K annually from tuition meeting or exceeding our expenses

F) Proposed timeline for staged implementation over five years:

- Fall 2019: Certificate proposal developed and approved by College of Health Sciences Directors, Dean Jones, and DK&H faculty.
- Fall 2020: Sept. – Submit NOI, Sept./Oct. – Submit feasibility study, and proforma budget. Nov. – Campus review process completed. Dec. – Board review.
- Spring 2021: Soft launch of certificate (marketing limited to enrolled UW students)
- Summer 2021: Marketing to rural communities for hard launch of certificate.
- Fall 2021: Hard launch of certificate with at least 3 students enrolled in certificate program (and at least 5 students enrolled in each certificate course)
- Fall 2023: Enrollment in certificate program increases to at least 5 per year (and at least 10 students enrolled in each certificate course)

G) Information on other required approvals: We have begun the substantive change determination process with AVP Steven Barrett. No other approvals are required.

H) Aligns with the University's mission: By training rural public health practitioners across the country, our proposed certificate unquestionably constitutes “breaking through” as we expand to serve those off campus and even out of state. While helping UW meet all four of its [Strategic Plan](#) goals, the certificate particularly enhances Goal Three, Impacting Communities. It would also serve as a response to Provost Miller's call for expanded distance learning opportunities to “contribute to the state's needs for a citizenry and workforce prepared to meet the demands of Wyoming's future” (email to UW employees, 10/10/2019).

I) Rationale that clearly defines the need for the new Academic Program: The need for individual institutions and local governments to now manage the COVID-19 pandemic is an unfortunately apt example of why public health training is essential in our communities. According to the [CDC](#), only 20-25% of our national public health workforce has graduated from an accredited school or program of public health. The DK&H's 2019 survey of existing regional online graduate certificates in public health indicates that the University of Montana provides an

affordable and comparable certificate option for Montana residents. All other related online programs in the region are either very distinct from what we propose to offer (e.g. focusing exclusively on mental health), require more credits than our proposed certificate, and/ or cost substantially more per credit than what UW charges.



## Addendum B

# *University Graduate Certificate in Community & Public Health* **Feasibility Study**

Submitted September 24, 2021

### **Executive Summary**

**Certificate Title:** *University Graduate Certificate in Community & Public Health*

**Level of Certificate:** Graduate

**Delivery Mode:** Asynchronous distance education program

**Estimated Startup Cost of Degree:** The Division of Kinesiology and Health (DKH) has already paid the start-up costs with distance education revenue and a *Distance Education Development and Innovation* grant from the UW Academic Affairs, Office of Distance Education. These costs totaled \$35,900 for staffing and a laptop. Ongoing costs have already been recouped via revenue from offering the individual online graduate courses that would compose this proposed certificate. According to our projections and strong demand evidence, including current course enrollment, a Graduate Certificate in CPH will be a net revenue generator for the University.

**Anticipated Launch Date:** Start of the Spring 2022 semester if approved

**Demand:** This Graduate Certificate in Community & Public Health (CPH) will help meet the needs of our campus, local, regional, and national communities. Although our proposal is a culmination of years of research and planning, the COVID-19 pandemic has highlighted both the shortage of and an urgent need for a trained public health workforce. State, national and Gray Associates data, as well as current course enrollments, all suggest a high demand for the kind of graduate-level online public health training proposed here.

**Description:** The CPH certificate would require four core courses, totaling 12 credits, in foundational concepts, epidemiology, and program development, support, and evaluation. These courses are and will remain available to take a la carte as well. However, students in the certificate program will be encouraged and supported to choose a particular CPH issue (e.g., tobacco use, obesity, occupational deaths) to address in the project-based assignments woven through each of the four required courses.

We also propose to offer a specialization option. Students would take one additional 3-credit graduate course, such as in rural health, food systems and health, or Native American health.

The proposed certificate will immediately begin to meet public health training needs in the state and national communities. In the long-term, the courses developed for the certificate will also facilitate the development of a full graduate degree in the field of public health.

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### **Feasibility Study Required Contents:**

#### **Overview and Description of Degree or Certificate, Purpose, Strategic Plan Overlay**

##### **Objectives**

The objectives of the proposed certificate in CPH are:

- To provide accessible and practical professional development to public health practitioners in the field, in particular those without formal training in CPH or who wish to extend their training.
- To broaden the education of current UW students preparing for clinical careers in CPH.
- To offer current UW students CPH career and higher education preparation.
- To support other residents and professionals in growing healthier communities.

##### **Fit with current offerings**

Before the development of new courses for this proposed certificate, DKH offered the following community and public health courses: occasional seminars, HLED 4021/5021 Creating Conditions for Community Health, HLED 3020 Community and Public Health, HLED 4005 Global Health, HLED 4020/5020 Food, Health & Justice, and HLED 3025 Emergency Preparation & Management. Kinesiology & Health students in the Master of Science program have the option to concentrate in Community & Public Health by taking these courses, seminars, and courses offered in other departments and schools.

##### **Rationale**

A formal public health curriculum is not available at UW or elsewhere in the state of Wyoming. This proposed Graduate Certificate will expand course offerings, formalize the CPH concentration for DKH students, and make our public health program available to students well beyond UW's existing student body. In terms of serendipity between similar programs, our proposed certificate, like public health itself, is trans-disciplinary and would reach across colleges at UW. Because of the proposed certificate's focus on equity, its content is relevant to Master of Social Work students and students in the School of Culture, Gender, and Social Justice. Our first student to complete all proposed core certificate courses was a graduate student in UW's Human Nutrition and Food program. This fact emphasizes the synergy between community and public health work and human nutrition at UW, which is further exemplified by DKH housing UW's "food system" courses, taught by the Division's Public Health Professor, whose doctoral training is in community nutrition. Courses developed as part of the proposed Graduate Certificate program will also benefit a wide audience of UW students. Using Epidemiology to Build Healthier Communities, a proposed core certificate course is already helping students in the biomedical and veterinary sciences meet their epidemiology requirement. Students in the Masters of Public Administration program can take Increasing Support for Public Health Projects (another proposed core course) to develop budgeting and fundraising skills to supplement their training. Based on demand data from Gray Associates, a proposed specialization course we will offer starting in Spring 2022 will be Environmental Health, which will expand the link between the College of Health Sciences and the Haub School of Environment and Natural Resources. That link currently includes a Sustainability Minor co-developed with Haub School and DKH faculty.

## Fit with Strategic Plans

By training public health practitioners across the country, our proposed certificate unquestionably constitutes “breaking through” as we expand to serve those off campus and even out of state.

The College of Health Sciences (CHS) has organized its strategic plan goals within the context of UW’s strategic plan goals. Thus, we address CHS goals under the headings of UW goals. In the detailed outline below, quoted text from [UW’s strategic plan](#) are in **bold**, while quoted text from [CHS’s strategic plan](#) are in *italics*.

- I. UW Goal: **Driving Excellence**
  - a. UW Target: **8 new academic programs**
    - i. The proposed Graduate Certificate in CPH is a formalization and expansion of existing coursework in the discipline at UW.
    - ii. We further anticipate this formalization being a foundational step toward creating a Master of Science in Community & Public Health degree.
- II. UW Goal: **Inspiring Students**
  - a. UW Target: Increase in **Overall enrollment**
    - i. The proposed certificate would increase overall enrollment by providing training for non-degree seeking students, especially current community and public health professionals.
  - b. CHS Goal: *Prepare graduates to be “practice ready” by fostering student proficiency in current and developing technologies, therapeutic approaches, documentation, and policy and funding models in community, and healthcare settings.*
    - i. With the CPH program’s focus on training a professional public health workforce, it will be particularly strong on the sub goal that *Students will be prepared to practice and lead in an evidence-based manner.*
    - ii. CHS Metric: of the *Number of... hands-on learning opportunities provided to our students*
      1. Certificate students will be required to develop their own public health project as outlined in the Curriculum Map and Program Structure section of this document.
- III. UW Goal: **Impacting Communities**
  - a. CHS Goal: *Improve health and health care in Wyoming, across the lifespan, by decreasing inequities in health care and health status.*
    - i. The CPH program is designed to train students to improve health, especially by decreasing inequities in health status.
    - ii. We anticipate the proposed Graduate Certificate increasing all of the below metrics by training public health professionals, including in the State of Wyoming.
      1. CHS Metrics:
        - a. *Increase Number of professionals reporting increases in knowledge and skills, in application of new knowledge and skills because of training through areas of excellence*
        - b. *Number of training participants*
        - c. *Number of CHS courses, research, or service projects that incorporate policymaking content on policy objectives*
        - d. *Number of individuals reporting increased knowledge and skills to advocate and inform policy as a result of education or training provided by CHS.*
  - b. CHS Goal: *Promote quality of life through preventative care and health promotion in all aspects of life.*
    - i. CHS Metric: *Number of students involved in community outreach activities that promote healthy behaviors and healthy lifestyles.*
      1. We expect to contribute to this metric by helping to train a public health workforce.
- IV. UW Goal: **A High-Performing University**
  - a. UW Target: Increase **Total annual university revenue**

- i. The proposed certificate will increase revenue by increasing **Overall enrollment**, and by increasing the ratio of online credits.
- b. CHS Goal: *Develop means to broaden sources of funding that will allow for the enhancement of the academic and service missions of the College, and the recruitment, development, and retention of high performing academic personnel and staff.*
  - i. The proposed CPH certificate will help the college broaden its source of funding by increasing income from distance learning tuition and especially by inviting a larger market of students to join UW regardless of their geographic location. Through our outreach efforts in national public health networks, the CPH program will further the CHS sub goal to *Develop and implement a marketing plan that will attract and retain elite student scholars.*

In terms of the university's emerging [4 Pillars](#), the proposed certificate contributes most obviously to UW's goal of becoming more *digital*, as this public health program is designed to be offered entirely online. Being more *inclusive* is increasingly recognized as essential to successful public health programs, and all CPH courses offered at UW emphasize this reality. Public health itself is an interdisciplinary science, incorporating into its fold economics, environmental and natural resources sciences, sociology and other social sciences, as well as other fields. Thus our proposed certificate will contribute to the more *interdisciplinary* pillar, both by covering concepts from multiple fields in our courses and by inviting students from across UW's colleges and departments to join these courses. While helping our students become more *entrepreneurial* is not an explicit goal of the CPH program, the Increasing Support for Public Health Projects course does, in fact, cover options for public health practitioners who wish to take an entrepreneurial approach to their work.

## Learning Outcomes

The core courses of our proposed Graduate Certificate in CPH cover the [competencies](#) required by the United States' academic public health program accrediting body, the [Council on Education for Public Health](#) (CEPH). Our program will not be eligible for accreditation until/ unless we have developed a full degree program, but we adopted best practices in building our certificate around these standards. Table 1 summarizes the learning outcomes of our proposed 12-credit certificate.

**Table 1: CEPH competencies for full graduate degree programs in public health and which CPH courses cover them**

<b>Proposed Graduate Certificate in CPH learning outcomes (based on CEPH competencies)</b>	<b>Core courses covering outcome</b>
Identify the core functions of public health and the 10 Essential Services.	HLED 5022 HLED 5024
List major causes and trends of morbidity and mortality in the US and in community(ies) on which student chooses to focus during the certificate program.	HLED 5021 HLED 5022
Identify examples of social, political and economic determinants of health and how they impact to population health and health inequities	HLED 5021 HLED 5022 HLED 5023
Evaluate the quality of evidence generated by epidemiological and other research methods used in public health research.	HLED 5023
Select quantitative and qualitative data collection methods appropriate for a given public health context.	HLED 5023
Interpret results of data analysis for public health research, policy or practice.	HLED 5023
Assess population needs, assets and capacities that affect communities' health.	HLED 5021 HLED 5024
Apply high-quality evidence and articulate the ethics used to shape community or public health program or policy.	HLED 5021 HLED 5022 HLED 5024
Articulate and incorporate cultural and ethical values and practices to the design and implementation of public health policies or programs.	HLED 5022 HLED 5024
Design a community-based policy, program, project or intervention.	HLED 5021



	HLED 5024
Propose strategies to identify stakeholders and involve them in making decisions about setting public health priorities and programs.	HLED 5021 HLED 5024
Explain basic principles and tools of budget and resource management.	HLED 5024
Articulate roles of ethics and evidence in developing a particular public health program or policy.	HLED 5021 HLED 5023 HLED 5024
Describe specific programs or policies that may help reduce systemic health inequities between groups.	HLED 5022
Develop strategies for sharing public health evidence and advocating for stakeholder community public health interests with policy makers and the public, including in building support for specific public health programs or policies with coalitions and partnerships.	HLED 5024
Design an appropriate evaluation strategy for a public health program or policy for impact on public health and on health equity. Screen reader support enabled.	HLED 5024
Select communication strategies for different audiences and sectors.	HLED 5022 HLED 5024
Communicate audience-appropriate public health content, both in writing and through oral presentation.	HLED 5024
Employ cultural humility in public health collaborations and communications.	HLED 5024
Identify and discuss means by which structural bias and “-isms” such as racism and sexism undermine health and create health inequities between socially defined groups (e.g., by race, sexual orientation, class).	HLED 5021 HLED 5022 HLED 5023
Explain how globalization affects global burdens of disease.	HLED 5022
Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health).	HLED 5021 HLED 5022
Use societal structures and/ or systems to explain observed public health outcomes and phenomenon.	HLED 5022 HLED 5024

CEPH = Council on Education for Public Health. Courses listed in the second column are described in the next section. This table excludes competencies covered in any optional specialization courses.

## Curriculum Map and Program Structure

Students in the certificate program will identify and develop one CPH project throughout the four core courses. Throughout the certificate process, work on student CPH projects will include identifying and analyzing a selected problem in their chosen community and developing an evidence-based intervention plan to address that problem.

We recommend that students progress with their project by taking courses in the order they are listed in

*Table 2.* All courses are fully online, asynchronous.

**Table 2: Student project outcomes for each core course and suggested course order**

Recommended Student Project Progress	Course
Project identified and put into a broader public health context.	HLED 5022: Unlocking the Potential of Public Health <ul style="list-style-type: none"> <li>First offered Fall 2020</li> </ul>

Project output in this course is a detailed analysis of epidemiological studies related to students' course projects.	HLED 5023: Using Epidemiology to Build Healthier Communities <ul style="list-style-type: none"> <li>First offered Spring 2020</li> </ul>
Project situated in environmental context. Project output in this course is an action plan for improving environmental conditions that create the public health problem.	HLED 5021: Creating Conditions for Community Health <ul style="list-style-type: none"> <li>First offered 2016</li> </ul>
Students develop strategies for building support. Project outputs include oral and written communications, a funding plan, and a completed grant application.	HLED 5024: Increasing Support for Public Health Projects <ul style="list-style-type: none"> <li>First offered Spring 2021</li> </ul>

While the course order above will be ideal for students who can adhere to it, core courses are specifically designed to stand alone if needed. Any specialization courses can also be taken as stand-alone courses. **Table 3** outlines implications that we foresee of various course chronologies.

**Table 3: Predicted implications of possible core course chronologies**

Predicted differences if proposed courses are taken in versus out of sequence				
Program engagement type	Project consequences	Content consequences	Workload consequences	Final outcome
Full certificate, in recommended sequence	Project progresses in sequence, building upon work in previous courses	Sequential course content builds upon and lightly reinforces previous courses where appropriate	Less work for these students at the beginning of each semester after first	<ul style="list-style-type: none"> <li>Complete project proposal, ready to submit for funding or approval with evaluation matrix in place</li> <li>These students will have the various elements of public health optimally contextualized for them</li> </ul>
Full certificate, out of recommended sequence	Project progresses as per each course, with an increased likelihood of students' changing their project topic in later terms (e.g. choosing a new topic based on available data when taking "Using Epi...")	All course topics will be comprehensible, but some will lack the context provided by the "Unlocking the Potential..." and/or "Using Epi..." courses	Higher beginning-of-term workload to identify project topic and conduct background research for those students who have not done so in previous courses, higher overall workload to finalize project, and higher effort to contextualize all course content	<ul style="list-style-type: none"> <li>Complete project proposal, ready to submit for funding or approval with evaluation matrix in place</li> <li>These students will be exposed to the various elements of public health</li> </ul>
A la carte (no certificate) "Creating Conditions...", "Increasing Support...", or specialization taken as single	Project progresses as per each course	All course topics will be comprehensible, but some will lack the context provided by the full certificate suite	Higher beginning-of-term workload to identify project topic and conduct background research	<ul style="list-style-type: none"> <li>Outcomes as described by each course description</li> <li>No certificate earned unless take all 4 core courses.</li> </ul>

course, outside certificate program				
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## Course Descriptions

All courses are fully online, asynchronous

### Core Certificate Courses

1. **HLED 5022: Unlocking the Potential of Public Health.** C&I approved course, first version was offered Fall 2020 as 5586-40. Using practical exercises and problem based learning, students investigate how social structures shape our health and how to alter them to improve community health.
2. **HLED 5023: Using Epidemiology to Build Healthier Communities.** C&I approved course, first version was offered Spring 2020 as 5586-40. Offered again in Spring 2021 as HLED 5023. In this course, students learn how to accurately interpret and weigh the evidence for any public health issue and are required to apply this knowledge to a specific public health topic of their choosing. At the end of the course students have new insight into what our best public health decisions might be based on available evidence.
3. **HLED 5024: Increasing Support for Public Health Projects.** Course pending C&I review of CARF. First offered Spring 2021 as HLED 5586-40. Students learn how to effectively build support for improving the health of their communities. Support includes funding, coalition and partnership building, effective communications with the public and policy makers, and participatory project planning with community stakeholders. In addition, this course will cover how to establish project evaluation frameworks.
4. The 4<sup>th</sup> core course is **HLED 5021, Creating Conditions for Community Health**, which has been offered regularly since Fall 2015.

### Specialization Courses

- **HLED 5026: Achieving Rural Community Health.** First offered Spring 2021 as 5586-41. This online course invites students to apply principals of community and public health in rural and frontier United States settings. The assignments build to solve a community rural/frontier community or public health issue of each student's choosing. The course outlines the challenges and assets that a rural or frontier setting brings to improving community health. This is designed to assist students to bridge gaps that rural settings face and create a plan for improvement within their chosen community or state.

## Assessment Plan

Each core course uses its own combination of assessment tools to determine students' mastery of the learning objectives outlined above. Assessment tools include standard, regular discussions and quizzes to monitor student engagement with course material plus course projects that assess learning via scientific communications, essay writing, public speaking, project planning (including budgeting), and creating presentations and other forms of audio and/ or visual media. To receive their Graduate Certificate in Community & Public Health, students must earn a final grade of a B or better in each of the four core courses of the certificate. A student must also receive a B or better in any specialization course for that specialization to appear on their certificate.

## Degree Program Evaluation

To evaluate success of our students after earning the proposed Graduate Certificate in CPH, we plan to augment standard alumni networking and follow-up procedures. We are working with the Advising • Career • Exploratory Studies Center to increase overall DKH participation in First

Destination Surveys. The existing CPH staff has the capacity to gather additional data specific to certificate alumni.

### Substantive Change Determination

The proposed Graduate Certificate in CPH is not a substantive change, but rather a formalization and expansion of DKH's existing [concentration in Community & Public Health](#).

### New Resources Required

#### Faculty and instructional staffing & Program administration and staff support

Administering and providing instruction for the proposed Graduate Certificate will require two full time assistant lecturer positions, replacing three adjunct instructors and adding administrative capacity to DKH. These two full-time positions cover all new faculty roles as well as administrative staff roles.

We conceive of the first assistant lecturer position being dominantly an instructional position, with an annual 21 credit teaching load. This position will help to cover DKH's existing, online CPH courses (HLED 4006, HLED 3025, and HLED 3020) and help develop and teach the Division's approved, new graduate CPH online courses. This employee also contributes to DKH via the following roles:

- Distance education liaison and resource: Ensuring program uses best practices in distance education – pedagogical and technological
- Potentially, interdepartmental liaison for cross-disciplinary program development and study abroad course development
- Budget Planning for CPH
- As program develops, serves as CPH graduate certificate coordinator

The second assistant lecturer will have a heavier administrative role and a lighter instructional load. In addition to developing and teaching CPH courses as needed, this position will:

- Administratively coordinate the overall CPH program for the Division, including securing and maintaining appropriate accreditation(s).
- Market new programs and recruit CPH students via low-cost options including networking with state and local public health agencies in the region.
- Engage CPH students, eventually including maintaining alumni network.
- Oversee the development of a full Master's program in CPH, including ensuring that the division can offer adequate graduate credits in CPH.

Both positions will:

- Oversee recruiting, advertising, applications, and formal admissions to the proposed Graduate Certificate in Community & Public Health.
- Advise students in CPH program, eventually serving on Master's thesis committees if appropriate
- Provide university and division service

### Technology

There will be no technological expenses outside of those required for maintaining two FTEs. All courses in the proposed certificate program will be available using extant software for UW's online courses.

### Library and digital resources

CPH staff has consulted with Library staff, and the Library does not foresee needing to make any changes to the services it provides for the proposed certificate program. Librarians are available to help CPH students with the same resources available to all students, and thus an increase in total enrollment would impact library resources.



## Marketing

We have budgeted \$3,000 for our first fiscal year of the certificate, decreasing to \$500 per year after that. Our two FTEs have been working with UW communications staff on course marketing and will continue this relationship. We also plan to use some Work Study employee time for marketing assistance.

## Support

We do not foresee needing any additional support.

## Executive Summary of Demand Statistics

Demand for graduate-level training in public health is high in the state, regional, and national markets. As outlined below, this is demonstrated with local and national survey data; reports from Gray Associates; and current enrollments in CPH courses offered by DKH.

### Training needs indicated in Wyoming and national surveys of public health professionals

In Wyoming, we found nearly unanimous support for offering an online public health training and professional development program among the 52 public health professionals surveyed in 2015. To answer a question that Trustee Moore posed at the 9/15/2021 AA/SA Committee meeting, up to 92% of those respondents would likely be eligible to participate in this proposed certificate program.

The desire for CPH training shared by our survey respondents in Wyoming mirrors similar needs nationally. Only [20-25%](#) of our national public health workforce has graduated from an accredited school or program of public health, although one nationally representative study found that 75% of this workforce does have a bachelor's degree or higher ([Leider et al., 2015](#)). [Leider et al. \(2015\)](#) conclude that “educational attainment among [state health agency] central office staff is high, but relatively few have formal training of any sort in public health. This makes efforts to increase availability of on-the-job training and distance learning all the more critical.”

### DKH experience with demand to date

This high demand for CPH training is echoed in our experience within UW and DKH. A 2014 survey of DKH students showed an unmet demand among existing UW students for public health courses. More recently, in the Spring 2021 semester, we experienced promising enrollment numbers in the three graduate public health courses that we have developed specifically for the proposed certificate and filled the fourth course that pre-dated our certificate plans (see Table 4). This was with only local, no-cost efforts to market these individual courses, and in spite of offering four graduate CPH courses at one time (this was in order to pilot them).

**Table 4: Spring 2021 enrollment in new, online graduate CPH courses, developed specifically as part of the proposed Graduate Certificate**

Course (core or specialization)	Undergraduate Students	Graduate Students	Non-Degree Seeking Students	Total Enrollment
Using Epidemiology to Build Healthier Communities (core)	15	5	1	21
Increasing Support for Public Health Projects (core)	9	1	0	10
Achieving Rural Community Health (specialization)	13	5	0	18

*In addition, the Creating Conditions core course, which pre-dated development of this certificate proposal, had 23 students enrolled in Spring 2021.*

### Gray Associates Data

Among online graduate certificate programs, student demand for public health training is high, ranking 5<sup>th</sup> overall nationally (see

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***Table 5*****Error! Reference source not found.** and Table 6). It holds the same rank within Wyoming.

**Table 5: Top 10 online graduate certificates, student demand nationally**

CIP	Q	Overall Score	Degree Fit	Employment	Competitive Intensity	Student Demand
42.0101 Psychology, General		40	4	-2	6	32
51.3801 Registered Nursing		50	4	21	-6	31
52.1001 Human Resources Management, Gen'l		34	2	7	-4	29
13.1401 ESL Language Instructor		21	4	-7	-5	29
51.2201 Public Health, General		26	4	0	-7	29
52.0301 Accounting		45	4	19	-7	29
39.0201 Bible/Biblical Studies		19	4	-14	1	28
52.0801 Finance, General		47	4	16	1	26
13.0101 Education, General		34	4	10	-6	26
43.0104 Criminal Justice/Safety Studies		25	2	5	-3	21

Data from Gray Associates

**Table 6: Demand for and competition within online, graduate certificate in “Public Health, General” as ranked by Gray Associates data, in percentiles**

Market	Student demand	*Competitive Intensity	Employment	Overall
National	100 <sup>th</sup> percentile	0 <sup>th</sup> percentile	76 <sup>th</sup> percentile	99 <sup>th</sup> percentile
Laramie 360	100 <sup>th</sup> percentile	17 <sup>th</sup> percentile	50 <sup>th</sup> percentile	99 <sup>th</sup> percentile
Wyoming	100 <sup>th</sup> percentile	50 <sup>th</sup> percentile	59 <sup>th</sup> percentile	99 <sup>th</sup> percentile

Percentile	0	20+	40+	70+	90+	95+	98+	100
<b>Overall Score</b>	<b>-41</b>	<b>-9</b>	<b>-3</b>	<b>1</b>	<b>9</b>	<b>14</b>	<b>22</b>	<b>50</b>

Data and percentile coding provided by Gray Associates. \*Color coding is reversed for Competitive Intensity.

For online graduate certificates, “Public Health, General” is not among top ranking programs for Employment in the national market, according to Gray Associates. It has a score of zero, with national employment scores ranking from 21 for Registered Nursing to -16 for Rhetoric and Composition/ Writing. It scores a -2 in the Laramie 360 market (score range 21 for Registered Nursing to -15 for Visual Arts and Performing Arts), and -1 in the Wyoming market (score range was from 20 for Registered Nursing to -16 for History).

Despite these low Employment scores from Gray Associates, other evidence strongly suggests that demand for a trained public health workforce is high and currently unmet. According to 2021 [Bureau of Labor Statistics](#) data, the career category of *Health Educator & Community Health Worker* is projected to grow “much faster than average” between 2019 and 2029, and recipients of the proposed certificate would generally qualify for these jobs. For students who would use UW’s proposed Graduate Certificate in CPH as an entry point for further education, the category *Epidemiologist/ Public Health* is projected to grow “faster than average.”

It is likely that those of you considering this proposal for a Graduate Certificate in Community & Public Health have heard frequent news reports in 2020 and 2021 regarding an on-going shortage of public health professionals in the context of the COVID-19 pandemic. This shortage reflects the fulfillment of a [2008 prediction](#) by the Association of Schools of Public Health that the United States would experience a shortage of 250,000 public health workers by 2020.

Employment opportunities in the field of public health exist across sectors, making employment data hard to track. This fact helps explain why even the American Public Health Association was unable to exactly quantify the public health workforce shortage that was the subject of its [2006 report](#). The report only attempts to quantify employment in local, state and national public health agencies, explicitly ignoring other community public health work (e.g. in the nonprofit sector) and public health work in other government agencies (e.g. housing and transportation.). Thus, Employment data from Gray Associates may be artificially low due to a basic problem in employment categorization and/ or keywords.



Table 7 provides a snapshot of the some of the variety of public health positions as well as related salary trends.

In addition to public health employment data being logistically difficult to track, lack of training is not the only known cause of our current shortage of public health workers. In 2013 the [CDC](#) identified the following explanation for what it calls the “public health workforce crisis:”

- *budget and funding cuts*
- *impending retirements among the workforce along with a diminishing number of workers*
- *a gap between workforce skills and capacity and evolving practice needs;*
- *changes to public health practice (e.g., related to technology and health care reform)*
- *inattention to the public health workforce*
- *insufficient recognition outside public health of the workforce needed to improve the public’s health.*

While our proposed Graduate Certificate in CPH does not and cannot address all of these identified problems, it does fulfill the CDC’s call for “online courses to meet competencies” as the second priority it identifies for meeting the challenges associated with the current public health workforce crisis. Furthermore, our proposed certificate specifically trains students in increasing funding for public health projects as well as how to elevate the importance of public health in the minds of the public and decision makers.

**Table 7: Bureau of Labor Statistics data on various public health profession salaries**

Public Health Occupation	Median Annual Salary, May 2019	% Growth from 2018 to 2028
Epidemiologists	\$70,990	5%
Community Health Workers	\$40,360	11%
Environmental Scientists and Specialists	\$71,360	8%
Health Educators	\$55,220	8%
Medical and Health Services Managers	\$100,980	18%
Healthcare Social Workers	\$56,750	17%
Mental Health and Substance Abuse Social Workers	\$46,650	18%
Substance Abuse, Behavioral Disorder and Mental Health Counselors	\$46,240	22%
Natural Sciences Managers	\$129,100	6%

Data from [www.publichealthdegrees.org/highest-paid-public-health-jobs/](http://www.publichealthdegrees.org/highest-paid-public-health-jobs/). Recipients of the proposed graduate certificate in CPH would be qualified for Community Health Worker positions, and would qualify for some Environmental Specialist positions.

In terms of competitive intensity, DKH's 2019 survey of existing regional online graduate certificates in public health indicates that the University of Montana provides an affordable and comparable certificate option for Montana residents. All other related online programs in the region are either very distinct from what we propose to offer (e.g. focusing exclusively on mental health), require more credits than our proposed certificate, and/ or cost substantially more per credit than what UW charges.

## Addendum C

## Expenses and Revenue Anticipated from Approval and Advertising of Certificate Only

	Fiscal Year				Notes
	1	2	3	4	
<b>Revenue</b>					
Cumulative students enrolled in Comm & Public Health grad classes	10	24	35	35	Cumulative
Certificate-only students	3	6	9	9	Estimated 25% of graduate enrollment is expected from Certificate-only students.
Total GRAD credit hours generated	90	144	240	240	See Grad Certificate Credit Calc tab for more information.
Total GRAD Online Graduate Certificate Program credit hours generated	23	36	60	60	Estimated 25% of graduate enrollment is expected from Certificate-only students.
<b>New Tuition Revenue</b>					
Graduate Certificate Tuition (Online Only Program)	\$476	\$495	\$515	\$535	4% increase each year. * No difference between state resident and non-state resident.
<b>Tuition generated exclusively by Certificate-only student</b>	<b>\$10,710</b>	<b>\$17,821</b>	<b>\$30,890</b>	<b>\$32,126</b>	
<b>Distance Fees</b>					
Distance Fee Revenue Per Credit	\$25	\$25	\$25	\$25	Standard distance per credit fee
<b>Distance Fee Revenue generated exclusively by Certificate-only students</b>	<b>\$562.50</b>	<b>\$900</b>	<b>\$1,500</b>	<b>\$1,500</b>	Fee times credit hours (Certificate-only)
<b>Tuition generated exclusively by Certificate-only students</b>	<b>\$10,710</b>	<b>\$17,821</b>	<b>\$30,890</b>	<b>\$32,126</b>	
<b>Distance Fee Revenue generated exclusively Certificate-only students</b>	<b>\$563</b>	<b>\$900</b>	<b>\$1,500</b>	<b>\$1,500</b>	
<b>Total New Revenue Generated</b>	<b>\$11,273</b>	<b>\$18,721</b>	<b>\$32,390</b>	<b>\$33,626</b>	

## New Program Expense Assumptions

## Compensation and benefits

Faculty	\$0	\$0	\$0	\$0
Other administrative staff	\$0	\$0	\$0	\$0
Graduate Assistants	\$0	\$0	\$0	\$0
Supplies	\$0	\$0	\$0	\$0
Travel	\$0	\$1,000	\$1,000	\$1,000
Marketing	\$3,000	\$500	\$500	\$500
Software	\$0	\$0	\$0	\$0
New course development	\$0	\$0	\$0	\$0
Capital expense	\$0	\$0	\$0	\$0
Other (specify)	\$0	\$0	\$0	\$0

## Projected Financial Results for New Program

	FY1	FY2	FY3	FY4	
Total Expenses	\$3,000	\$1,500	\$1,500	\$1,500	Calculated from rows above.
Total Revenues Generated	\$11,273	\$18,721	\$32,390	\$33,626	Calculated from rows above.
<b>New Program's Total Surplus or Deficit</b>	<b>\$8,273</b>	<b>\$17,221</b>	<b>\$30,890</b>	<b>\$32,126</b>	
Operating margin (surplus or deficit / revenues)	0.73	0.92	0.95	0.96	
			<b>4-Year Total:</b>	<b>\$88,511</b>	

\* UW's Board of Trustees' current working policy is to raise tuition by 4% each year

Last updated 10/21/21