### FACULTY SENATE ISSUE FORM

**Date Submitted:** March 12, 2018  
**Title of Issue (a short descriptive title by which the issue may be referenced):** Proposal for a Bachelor of Science in Health Sciences  
**Description of Issue:** Old Dominion University seeks approval to initiate a Bachelor of Science in Public Health to begin fall 2019. This program will be offered through the School of Community and Environmental Health in the College of Health Sciences.

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**Rational for Submission:**  
The purpose of the proposed program is to offer robust educational content and experiences that encompass frameworks, policies and strategies in the field of public health to students who wish to enter or advance in the field. Public health spans several disciplines—epidemiology, social and behavioral sciences, environmental sciences, health policy, biostatistics—dedicated to the improvement of the health and well-being of populations across the globe. These key disciplines will be covered in the proposed program.

Graduates of the proposed program will be prepared to work in a variety of public health settings to conduct health promotion and wellness programs; lead research and public health activities in governmental and other agencies; facilitate innovation to educate and empower the public about health, safety, and prevention of disease; manage data to provide responsiveness and reporting; use evidence to create public health policies; and establish organizational cultures that are committed to life-long learning. Ultimately, graduates will be prepared to address public health challenges in a diverse array of organizations focused on the health and well-being of populations in Virginia and beyond.

For a number of years, ODU has offered a major in public health within the Bachelor of Science in Health Sciences. While the new program will offer a similar curriculum, the competencies will have an enhanced focus on the interdisciplinary approach to public health. Thus, students will have a strong underpinning in public health content and experiences so that they may use evidence-based decision making and practice to improve the health and well-being of multiple communities. The proposed program will also address social determinants of health and will help graduates work toward developing healthier populations through individuals’ and communities’ lifestyle and
behavioral changes.

Name: Judy Bowman, submitted on behalf of Austin Agho
Department: Academic Affairs
Date: March 12, 2018
Signature:

For Faculty Senate Use Only
Assigned to Committee:
Date Assigned:
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<th>1. Institution</th>
<th>Old Dominion University</th>
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<td>2. Academic Program (Check one):</td>
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<td>New program proposal</td>
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<td>Spin-off proposal</td>
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<td>Public Health</td>
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<td>4. CIP code</td>
<td>51.2201</td>
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<td>5. Degree/certificate designation</td>
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<td>6. Term and year of initiation</td>
<td>Fall 2019</td>
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<td>8. Term and year of first graduates</td>
<td>Fall 2019</td>
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<td>TBA</td>
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<td>10. For community colleges:</td>
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<td>date approved by State Board for Community Colleges</td>
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<td>11. If collaborative or joint program, identify collaborating institution(s) and attach letter(s) of intent/support from corresponding chief academic officers(s)</td>
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<td>12. Location of program within institution (complete for every level, as appropriate and specify the unit from the choices).</td>
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<td>Departments(s) or division of</td>
<td>School of Community and Environmental Health</td>
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<td>School(s) or college(s) of</td>
<td>College of Health Sciences</td>
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<td>Campus(es) or off-campus site(s)</td>
<td>Main campus in Norfolk</td>
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<td>Mode(s) of delivery: face-to-face</td>
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<td>distance (51% or more web-based)</td>
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<td>hybrid (both face-to-face and distance)</td>
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13. Name, title, telephone number, and e-mail address of person(s) other than the institution’s chief academic officer who may be contacted by or may be expected to contact Council staff regarding this program proposal.
Dr. Jeanie Kline, SCHEV Liaison, 757.683.3261, jkline@odu.edu
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Description of the Proposed Program

Program Background

Old Dominion University (ODU) seeks approval to initiate a Bachelor of Science in Public Health to begin fall 2019 in Norfolk, Virginia. This program will be offered through the School of Community and Environmental Health in the College of Health Sciences.

The purpose of the proposed program is to offer robust educational content and experiences that encompass frameworks, policies and strategies in the field of public health to students who wish to enter or advance in the field. Public health spans several disciplines—epidemiology, social and behavioral sciences, environmental sciences, health policy, biostatistics—dedicated to the improvement of the health and well-being of populations across the globe. These key disciplines will be covered in the proposed program.

Graduates of the proposed program will be prepared to work in a variety of public health settings to conduct health promotion and wellness programs; lead research and public health activities in governmental and other agencies; facilitate innovation to educate and empower the public about health, safety, and prevention of disease; manage data to provide responsiveness and reporting; use evidence to create public health policies; and establish organizational cultures that are committed to life-long learning. Ultimately, graduates will be prepared to address public health challenges in a diverse array of organizations focused on the health and well-being of populations in Virginia and beyond.2

According to the CDC Foundation, public health “is the science of protecting and improving the health of people and their communities.”1 This is accomplished through “implementing educational programs, recommending policies, administering services and conducting research…” Faculty have developed a program that will prepare graduates to work in one or more of these areas of public health in the Commonwealth of Virginia and throughout the country.

For a number of years, ODU has offered a major in public health within the Bachelor of Science in Health Sciences. While the new program will offer a similar curriculum, the competencies will have an enhanced focus on the interdisciplinary approach to public health. Thus, students will have a strong underpinning in public health content and experiences so that they may use evidence-based decision making and practice to improve the health and well-being of multiple communities.2 The proposed program will also address social determinants of health and will help

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1 https://www.cdcfoundation.org/what-public-health

graduates work toward developing healthier populations through individuals’ and communities’ lifestyle and behavioral changes.³

Mission

The mission of the institution says: Old Dominion University, located in the City of Norfolk in the metropolitan Hampton Roads region of coastal Virginia, is a dynamic public research institution that serves its students and enriches the Commonwealth of Virginia, the nation and the world through rigorous academic programs, strategic partnerships, and active civic engagement. The Bachelor of Science in Public Health will align with the university’s mission by providing a rigorous academic program that prepares public health graduates to address community and population health needs through strategic partnerships and engagement with stakeholders in state, regional and local health departments, education, non-governmental organizations, and health care organizations.

Further, Old Dominion’s location within the Southeastern region of Virginia—with municipalities, military health care facilities, other governmental entities, and non-profit agencies—places it in a unique position to provide the integrated networks necessary to provide educational support and development of public health leaders in all phases of health care.

Online Delivery

The proposed Bachelor of Science in Public Health will be taught online in synchronous and asynchronous web-based formats. Students enrolled in the program will be able to access course materials utilizing Blackboard, the university’s course management system. All assignment submissions and other course management actions take place in Blackboard. Further, asynchronous class meetings will be delivered via WebEx software. Faculty-student interaction is available via email, phone, in-person meetings, and WebEx meetings.

Faculty members who teach in the web-based format are trained in course development and delivery through the Center for Learning and Teaching (CLT). There, instructional designers and technologists work individually with each faculty member to convert course content, assignments, testing, and other course work to a web-based platform. Faculty work closely with the designers to ensure web-based content and student learning outcomes are the same as face-to-face content and learning outcomes.

Admission Criteria

The requirements for admission to the proposed Bachelor of Science in Public Health will include:

- An Old Dominion University admission application and associated fee
- A supplemental application for the program in public health
- Official transcripts from all regionally-accredited post-secondary institutions or equivalent foreign institutions attended, with a minimum GPA of 2.5 in prior coursework; a GPA of 3.0 or better will make the applicant more competitive
- A Test of English as a Foreign Language (TOEFL) score of 550 on the paper-based test (or 79-80 on the iBT) for non-native English speakers

Target Population

The proposed Bachelor of Science in Public Health will target individuals from community colleges and health care settings who are interested in pursuing advanced training in health-related fields and wish to have greater depth of knowledge in public health. It will also target those interested in securing entry-level positions in public health.

Curriculum

The proposed Bachelor of Science in Public Health is a 120-credit program that consists of a science foundation, a public health core, and major requirements that address global, public, and community health. The program will also include coursework in ethics, policy, economics, and environmental issues, among other areas. Further, students will gain knowledge of basic research methods necessary for assessment, analysis, communication, problem solving, critical thinking and evidence-based health care. A key component of the program is practical experiences in public health settings.

The proposed program’s curriculum will be built on the five core competencies in public health: epidemiology, environmental and occupational health, biostatistics, social and behavioral aspects of health, and health policy and management. It is designed to provide students with the requisite skills needed in the public health profession. Foundational science courses provide basic knowledge and skills in key areas of the sciences, as well as in healthcare terminology, so that students will understand the development of disease and injury process in individuals and in communities. Program courses will prepare students for prospective roles in public health, aimed at promoting health and preventing disease and injury.

The 120-credit curriculum encompasses the following requirements.

*Courses marked with an asterisk must be completed with a grade of C or better. All are existing courses at the university, with the exception of 5 new program courses, identified below.

Lower-Division General Education (32-38 credit hours)

Written Communication Skills* 6 credits
Oral Communication 3
Mathematical Skills—MATH 162M* 3
Language and Culture 0-6**
Information Literacy and Research—HLTH 150G 3
Human Creativity 3
Interpreting the Past 3
Literature 3
Philosophy and Ethics (met in the major) 0
The Nature of Science*—BIOL121N, 122N, 123N, 124N 8
Human Behavior (met in foundational science) 0
Impact of Technology (met in the major) 0

Additional Lower-Division Coursework/Prerequisites (6 credit hours)
STAT 130M* 3 credits
CHP 200* 3

**Students who earned a high school diploma before December 31, 1985 and those whose native language is not English are exempt from this requirement. Others may meet the requirement if they have a transfer associate degree that satisfies all lower-level general education coursework or if they have successfully completed three years of one language or two years of two different languages in high school. If this has been met, no course work is needed for this category.

Foundational Science Courses (25 credit hours)
BIOL 240 or 250 Human Anatomy and Physiology I 4 credits
BIOL 303 Genetics 3
CHEM 121N-122N Foundations of Chemistry I 4
CHEM 123N-124N Foundations of Chemistry II 4
CHEM 211 Organic Chemistry 3
PHYS 111N Introductory General Physics 4
PSYC 201S Introduction to Psychology 3
or SOC 201S Introduction to Sociology

Program requirements (48 credit hours)
CHP 328* Public Health Science 3 credits
CHP 335* Population Health 3
CHP 360* Introduction to Global Health 3
CHP 390* The U.S. Health Delivery System 3
CHP 400* Ethics in Health Administration 3
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHP 415W*</td>
<td>Critical Issues in Public/Community Health Promotion</td>
<td>3</td>
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<tr>
<td>Or CHP 430W*</td>
<td>Community Health Resources and Health Promotion</td>
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<tr>
<td>CHP 445*</td>
<td>Health Services Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CHP 450*</td>
<td>Public/Community Health Administration</td>
<td>3</td>
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<tr>
<td>CHP 461*</td>
<td>Managerial Epidemiology</td>
<td>3</td>
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<td>CHP 485*</td>
<td>Health Informatics</td>
<td>3</td>
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<td>ENVH 301*</td>
<td>Introduction to Environmental Health</td>
<td>3</td>
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<tr>
<td>PUBH 403W*</td>
<td>Social and Behavioral Aspects of Public Health</td>
<td>3</td>
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<tr>
<td>PUBH 415*</td>
<td>One Health and One Medicine</td>
<td>3</td>
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<tr>
<td>PUBH 421*</td>
<td>Leadership in Public Health</td>
<td>3</td>
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<td>PUBH 422*</td>
<td>Essentials of Health, Culture and Diversity</td>
<td>3</td>
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<tr>
<td>PUBH 441*</td>
<td>Multi-Disciplinary Approaches to Suicide Prevention</td>
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**Culminating Experience (3 credit hours)**

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CHP 468</td>
<td>Internship in Public Health</td>
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The culminating course, CHP 468, Internship in Public Health, is designed to ensure that students achieve the following objectives:

- Practical experience in a health setting via exposure to an organization and/or community context that generates health activities.
- Acquisition of practical skills through field assignments that challenge students to utilize knowledge of competencies learned from the academic curriculum. Improved understanding of the political, economic, social and organizational context within which public health and health services administrative activities operate.

Students who do not pass the culminating experience in the first attempt will have the opportunity to repeat the course twice. If they are unsuccessful on their final attempt, they will not be able to earn the Bachelor of Science in Public Health.

**Upper-Division General Education (6-24 credit hours)**

Students may choose one of the following options to fulfill their upper-division general education requirement.

**Option A**
A University-approved disciplinary minor, second degree or second major, with advisor approval

**Option B**
A University-approved interdisciplinary minor

**Option C**
International business and regional courses or an approved certification program

**Option D**
Six (6) hours of upper division courses outside the College of Health Science
The plan of study for full-time students is available in Appendix A. Course descriptions are provided in Appendix B.

**Student Retention and Continuation Plan**

Students in the proposed Bachelor of Science in Public Health will be provided a synchronous web-based orientation of policies and procedures at the university and within the program so that they will fully understand the expectations of the program. The orientation will also highlight the internship process and the importance of this culminating experience.

Advising in web-based platforms or by phone is a key component of the proposed program, given its online format. Each admitted student will be assigned to a faculty member, who will be available during regularly-scheduled office hours for course planning, internship information, and career preparation. At least one advising session per semester will be required of all students. Advisors will schedule more frequent meetings with students who are underperforming in the program in order to formulate a plan of action for improvement. WebEx or Adobe Connect will be used to schedule meetings on a regular basis. In addition, ODUOnline and Student Engagement advisors and coaches regularly work with the online students, and will be available for assistance when students find themselves in academic difficulty.

**Faculty**

Four existing full-time faculty members in the School of Community and Environmental Health are dedicated to the proposed program. The faculty, who have intensive public health teaching experience, include one professors, one associate professor, and two lecturers, all of whom hold terminal degrees. The tenured and tenure-track faculty members have established records as productive researchers in areas such as general public health, environmental health, behavioral health, health services and management, occupational health, adolescent health, school health, substance abuse, climate change, to name a few.

Further, there are two adjunct faculty members who teach 1-2 courses in public health each term. Each of these individuals has a minimum of a master’s degree with 18 hours in the public health content they are teaching.

Abbreviated CVs of the public health faculty in the department can be found in Appendix C.

**Program Administration**

The proposed program will be housed in the School of Community and Environmental Health, College of Health Sciences. A full-time public health faculty member will serve as the Undergraduate Program Coordinator (UPC). The UPC will teach in the program, advise students,
serve on committees, and provide administrative oversight for the Bachelor of Science in Public Health. The UPC will also ensure program compliance with university policies and procedures. An administrative assistant, housed in the School of Community and Environmental Health, will contribute approximately 25% of her/his time to support the program.

Student Assessment

The Association of Schools and Programs of Public Health (ASPPH, 2013) provides an outcome-oriented approach to learning that emphasizes demonstrable and measurable behavior, displayed as knowledge, skills, and/or attitudes, to perform a given task or fulfill a role, function, or job. This approach will serve as the philosophical foundation of the proposed program. Students will engage in ongoing formative assessments such as quizzes, exams, projects and presentations as they complete the respective components of the academic program. The program is designed to prepare graduates to meet the skill sets typically required for entry-level positions in public health organizations. Students will also be prepared to pursue advanced degrees in public health or other health-related fields. As a result of completion of the academic program, students will achieve mastery of the following learning outcomes. They will be able to:

1. Examine how major local, national and global health challenges impact public health;
2. Analyze alternative viewpoints and assess the source and quality of health information and data, as related to individual community health;
3. Apply ethical reasoning skills in real-world challenges that arise in the field of public health and examine the fundamental right to health and health services;
4. Synthesize and apply public health knowledge, skills, and responsibilities to new settings and complex problems within the field.

Data related to the student learning outcomes will be collected on an annual basis and reported on the university’s assessment database. Evidence of student achievement of learning objectives will be assessed during the program through practical and written exams, assignments, research projects and presentations. Each course will have objectives that need to be met in order for the student to successfully pass that course.

Faculty will assess student learning in several ways, including annual evaluations of all courses, tracking students’ academic progress each semester, reviewing student opinion survey data, and conducting faculty teaching observations through peer observations. The Office of Institutional Effectiveness and Assessment works with faculty to evaluate data related to these assessments.

The public health faculty will complete the following activities each year as part of the efforts to assess learning:

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• Analyze **student learning** in coursework by evaluating representative student papers, oral presentations, and assignments;
• Examine **subject matter and pedagogy** for necessary changes that contribute to successful student learning;
• Analyze **internship portfolios** to assess how well students have mastered the learning outcomes of the program demonstrated through successful completion of assignments outlined in the Internship Manual.

Below is a map of the Student Learning Outcomes (SLOs) for the program, as well as the method of assessment associated with each. Each SLO is addressed multiple times during the curriculum because acquiring the knowledge, skills and values for mastery of the objectives is an iterative process rather than a one-time event. For example, a student may engage in an activity, such as analyzing case studies, three different semesters and each time his or her understanding and skill will be further developed. At completion of the curriculum each student will have had the opportunity to demonstrate mastery of each Student Learning Outcome.
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<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Measure</th>
<th>Target</th>
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<tr>
<td>1. Examine how major local, national and global health challenges impact public health.</td>
<td>Case studies and essay questions from: CHP 328 Public Health Science CHP 390 The US Health Delivery System CHP 461 Managerial Epidemiology ENVH 301 Principles of Environmental Health Science CHP 335 Population Health</td>
<td>80% of students will earn 80% or higher on the case study questions and essay questions. This target will be evaluated for each course.</td>
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<tr>
<td>2. Analyze alternative viewpoints and assess the source and quality of health information and data, as related to individual community health.</td>
<td>CHP 415W Critical Issues in Public/Community Health Promotion (critical analysis paper) CHP 430W Community Health Resources and Health Promotion (research paper)</td>
<td>80% of students will earn “meets or exceeds standard” on the critical analysis paper/research paper/research proposal rubric.</td>
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<tr>
<td>3. Apply ethical reasoning skills in real-world challenges that arise in the field of public health and examine the fundamental right to health and health services.</td>
<td>CHP 400 Ethics in Health Administration (case analysis) CHP 450 Public and Community Health Administration (case analysis)</td>
<td>80% of students will score an 80 or higher on the case analysis.</td>
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<tr>
<td>4. Synthesize and apply public health knowledge, skills, and responsibilities to new settings and complex problems within the field</td>
<td>CHP 454 Leadership in Public Health (paper) CHP 468 Internship in Public Health (portfolio)</td>
<td>80% of students will earn an 80 or higher on the paper. 80% of students will earn a “meets or exceeds standard” on all sections of the portfolio reflection assignment.</td>
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Employment Skills/Workplace Competencies

Graduates of the proposed program will have the ability to:

1. Collaborate with health teams or work independently on program development and implementation for public health clients

2. Develop and implement evidence-based policy, systems and environmental change strategies directed toward community health improvement, active living, healthy eating, obesity prevention, tobacco use prevention and injury prevention

3. Ensure compliance with all local, state and federal regulations, client site-specific policy and ethical standards through engagement with client appropriate departments

4. Provide reports on effectiveness of public health strategies, methods, and tools for public health professionals

5. Maintain a positive working relationship with other team members and outside agencies and create improved opportunities for the exchange of information through various media and processes

6. Demonstrate knowledge and skill in working with diverse populations and have the ability to work independently

7. Demonstrate patient centered/patient valued behaviors and advocate for evidence-based social changes that improve the health of individuals and communities and champion the role of prevention in promoting a healthy community

8. Demonstrate ability to analyze approaches for assessing and controlling environmental hazards that affect community health.

Curriculum Content Fulfilling Workplace Competencies

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<tr>
<th>Competency</th>
<th>ENV 301</th>
<th>CHP 328</th>
<th>PUBH 422</th>
<th>CHP 390</th>
<th>PUBH 421</th>
<th>CHP 445</th>
<th>CHP 450</th>
<th>CHP 461</th>
<th>CHP 485</th>
<th>PUBH 403W</th>
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Program Assessment

The program will be assessed by the School of Community and Environmental Health, the College of Health Sciences and the Office of Academic Affairs. The school review will be completed annually in the fall of each year, and will consist of:

- Analyzing data from the university’s assessment tool.
- Analyzing retention and attrition rates in order to maximize the positive influences and ameliorate the negative ones that affect program completion.
- Analyzing the results of the Old Dominion University internship site evaluations to identify potential areas for improvement within the curriculum.
- Analyzing graduate job placement to assess if the program is preparing students with the knowledge, skills and abilities for jobs in the public health field and evaluate the program’s ability to meet market demands (following initial graduates’ completion).

Results of these assessments will be used to evaluate the quality of the program, to stimulate program development, and to assess the role of the program in fulfilling ODU’s institutional mission. The public health program review may (a) result in strategic decisions about the program, (b) identify areas of potential improvement, (c) make resource recommendations, (d) articulate considerations for expansion or consolidation, and/or (e) consider other aspects of programmatic quality with respect to policies and practices relative to:

- Student recruitment, admissions, advising, and retention;
- Enrollment projections;
- Course descriptions and implementation;
- Curriculum changes and development;
- Faculty development and research activities;
- Facilities;
- Internal and external funding; and
- Description of strengths and weaknesses with attention to points of action for the future.

The results of the annual review will be incorporated into the College of Health Science’s annual review. The dean and associate dean will read the program review each year to ensure that progress is being made with respect to meeting student learning outcome measures, ensuring that benchmarks are met and excellence is maintained. Similarly, the college’s annual review/report will be sent to the Vice Provost for Academic Affairs for review each year. The Vice Provost summarizes the results for the Provost, and makes recommendations, if needed, for meeting benchmarks or updating student learning outcomes.
Benchmarks of Success

Benchmarks of success for this undergraduate program will include professional placement of graduates and graduate satisfaction with the program:

- 40 students will be admitted during the initiation year and the projected enrollment will grow to 60 students by the target year
- 90% retention of the enrolled students
- 75% of students will have graduated in 4 years
- 70% of the students will have earned jobs in the public health field within one year of program completion
- 25% of the students will continue on to graduate school within one year of program completion
- 90% of students will be satisfied with the program as determined by the University’s Student Satisfaction Survey

Methods of benchmark-related data collection will include surveys, interviews, and consultations. If the proposed Bachelor of Science in Public Health has not met one or more of the benchmarks of success, the chair will meet with program faculty and determine what course of action is required to make sure that the inadequacy is addressed. The plan of action will be submitted to the associate dean for approval, suggestions, and any allocation of resources necessary for success.

Expansion of Existing Programs

The proposed Bachelor of Science in Public Health represents an expansion of an existing public health major in the Bachelor of Science in Health Sciences. This new program will allow students to take courses in public health and develop foundational knowledge and skills needed to enter the public health workforce or pursue advanced public health degrees. Once the proposed program is approved, the major will be discontinued.

Relationship to Existing Degree Programs

The proposed Bachelor of Science in Public Health has no relationship with or similarity to any other baccalaureate program at the university.

Compromising Existing Programs

No degree programs will be compromised or closed as a result of the initiation and operation of the proposed degree program.
Collaborative or Standalone Program

This is a standalone program. No other organization was involved in its development, and no other organization will collaborate in its operation.

Justification for the Proposed Program

Specific Demand

According to the World Health Organization (WHO), public health refers to all organized measures – whether public or private – to prevent disease, promote health, and prolong life among the population as a whole. The aim of public health activities is to provide conditions in which people can be healthy, with a focus on population health. “Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”

The three main public health functions, according to WHO, are:

- The assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities.
- The formulation of public policies designed to solve identified local and national health problems and priorities.
- To assure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services.

Figure 1. What is Public Health? (Source: http://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/ten-essential-public-health-services/main)

There is a convergence of factors that contribute to the specific demand for public health professionals, especially at the undergraduate level: escalating health care costs and unsatisfactory health care outcomes, the Affordable Care Act, information technology, changing demographics and workforce characteristics. Specific demand is driven by efforts to improve health outcomes and to reduce healthcare costs by teaching people healthy habits and behaviors and explaining how to use available healthcare services.7

In the U.S., rising costs for health care have not resulted in improved health care outcomes. Although more money is spent on health care in the U.S. than in any other nation, the country’s health is ranked 37th worldwide, with the health of its citizens lagging far behind other nations.8 There have also been sweeping changes in U.S. health care delivery to produce better health care outcomes with less cost. Examples of these changes is the shifting of health care to less expensive settings than emergency or acute care hospitals, and a shifting focus from treatment of disease to prevention. The demographic and epidemiologic transitions and the shifts in disability burden have also influenced health systems and health professionals to reach into homes and communities, addressing the needs of populations to stay healthy. As the large baby-boom population ages and people remain active later in life, the healthcare industry has increased demand for individual and population health services.

The Affordable Care Act (ACA) has had an effect on the demand for a larger public health workforce through coverage of wellness services. It has created two initiatives to promote prevention and public health: the Prevention and Public Health Fund and the National Prevention Strategy.9 With the passage of the ACA, most health plans require access to wellness and preventive health at no cost; this includes blood pressure and cholesterol screenings, cancer screenings such as colonoscopies and mammograms, and immunization vaccinations for adults and youth (e.g., flu, measles, and mumps) and contraceptive measures. Several behavioral health interventions are also covered at no cost, including alcohol misuse screening and counseling, depression screening, and tobacco cessation counseling and interventions.

The Prevention and Public Health Fund (PPHF) is a funding source for expanded and sustained federal investments in research; surveillance and tracking; and public health infrastructure, workforce, and training. The PPHF contributes to a number of programs, including the National Prevention Strategy, and locally-based grants such as the Community Transformation Grants and the National Public Health Improvement Initiative. The National Prevention Strategy identifies four strategic directions and seven strategic priorities with the overarching goal of increasing the number of Americans who are healthy at every stage of life. The report provides recommended policy, program, and systems approaches for each strategic direction. All of these preventive

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measures, services and programs have created a greater demand for public health workforce in both public and private sectors.

Innovations in technologies and therapeutic systems have emerged that enable monitoring and intervention in person and at a distance. Although health professionals have the enhanced support of information technology, new skills are needed to validate, synthesize, and apply decisions. There is often an overload of available information, making the role of the public health professional essential to the entire health care team. Teamwork involving public health professionals, community workers and the public has become even more important to influence individual behavior and lifestyle, as well as shape large-scale policies.

Historically, education and training in public health has been delivered primarily through graduate education, but the focus is now changing. Programs in public health at the undergraduate level are becoming more common among institutions of higher learning. Undergraduate degrees in public health are addressing an unmet demand focused on prevention and wellness for populations and communities rather than specialized health care delivery for individuals having trauma or disease. However, undergraduate degrees in public health are still not offered as widely as graduate programs in the field.

A larger public health workforce is needed to address these compelling public health needs and issues. There are many confounding variables that contribute to inadequate supply of a public health workforce, including having too few workers with degrees in public health (only 17% of the current public health workforce presently has formal public health training), an aging workforce, a wide range of work settings and increased demand for population health. The public health professional works in a variety of public and private organizations including public health departments, governmental agencies, school systems, health care organizations and the private sector. The National Academy of Medicine has stated its desire that those in governmental public health have a formal public health degree at the undergraduate or graduate level.

In addition to the limited number of trained public health workers, a large percentage of workers is expected to retire in the coming decade. On average, public health staff average 48 years of age, 6 years older than the total U.S. workforce; this includes 47% of the public health workforce aged 50 or older, and 15% aged 60 or older. Comparatively, only 15% of this workforce is under

These findings are consistent with those reported among the Centers for Disease Control and Prevention employees, validating that the public health workforce is aging across the governmental enterprise.

Beginning in 2001, the Robert Wood Johnson Foundation urged the Institute of Medicine (IOM) to examine the education of public health professionals and develop recommendations as to how public health education, training, and research could be strengthened to meet the needs of future public health professionals. The aim would be to improve the overall health of the U.S. population. The existence of a significant public health workforce shortage in the U.S. was acknowledged over 10 years ago when the Association of Schools and Programs of Public Health (ASPPH) reported that more than 250,000 additional public health workers with bachelor- and master-level training are needed by 2020.

In 2010, the Robert Wood Foundation commissioned a systematic review of the public health workforce. The ASPPH suggests additional workers will avert a workforce shortage that would leave the nation vulnerable to a range of pending threats, including infectious diseases (e.g., pandemic flu, chronic health problems, bioterrorism and natural disasters). Based on these estimates, schools of public health have needed to produce three times the past number of graduates—including those with baccalaureate degrees—to replenish the workforce. The number of graduates projected with the Master of Public Health cannot meet this demand and jobs are beginning to emerge for entry into public health to address the unmet needs. Consequently, the field has evolved to create a market for persons trained at the undergraduate level. Ultimately, while the public’s health needs and public health career routes are growing, the available undergraduate public health degree programs have not kept pace with the needs.

Virginia Needs
Innovative public health practices and workforce development are growing requirements in the Commonwealth of Virginia, where population-based healthcare is playing an increasingly important role. The proposed program will produce a needed workforce at the undergraduate level to promote well-being, prevent disease, and reduce disparities across the Commonwealth.

With an aging population, greater demand for healthcare, and high health care expenditures, there is a growing health burden for the general population. According to CDC’s eleven

measures of health burden, Virginia ranked higher than the nation for diagnosed diabetes, diagnosed hypertension, and medicated hypertension. Health promotion, accessible health care, prevention, and health education are essential to reduce and eliminate the threat of these burdensome diseases. To reduce the growing burden of poor health, there is a need for health promotion and prevention, supported by qualified public health professionals. The focus of health care is gradually shifting from individual, episodic, technical care for the treatment of disease to integrated, continuous care focused on the health of the community. Health care and public health are merging into a more cohesive approach, creating a specific demand for public health workforce educated at the undergraduate level.

According to the current United States Census Bureau, Virginia had an estimated population of 8.4 million in 2017, approximately 3% of the total population of the United States. Virginia’s large population and significant number of aging baby boomers drive the demand for public health services while also straining healthcare systems and resources. Delivering efficient and effective public health programs requires Virginia to expand its public health workforce in the 35 local health districts, in addition to providing a trained workforce for private settings. The Virginia Department of Health (VDH) recognizes a need for more trained public health workers. The proposed program will integrate the needs and priorities of VDH, local health departments, the U.S. Navy and other military branches, non-governmental organizations health systems, and other community partners.

According to the American Health Rankings for 2017, Virginia ranks 19th in overall national health ranking for 2017, a rank which has remained essentially the same since 1990. Highlights of Virginia’s 2017 America’s Health Rankings include:

Strengths:
- 6% decrease in air pollution (since 2013)
- 25% decrease in preventable hospitalizations among Medicare beneficiaries (since 1994)
- 27% decrease in smoking (from 20.9% to 15.3% of adults in past 5 years)
- 38% decrease in infant mortality (since 1994)

Challenges:
- Low immunization coverage among children and teens
- High infant mortality rate
- High drug overdose rates*
- High poverty
- Premature death before age 75 (3% higher in the past 3 years)

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*In the past five years, drug deaths increased 41% from 8.0 to 11.3 deaths per 100,000 population.

A review of health indicators, health burden, risk factors, and preventative services in Virginia points to four major public health challenges: maternal and child health; suicide and mental health; chronic disease; and resilience communities and environmental health.

The proposed Bachelor of Science in Public Health will produce well-prepared graduates who can provide sustainable solutions to public health issues and meet escalating demand for population health. The proposed program will provide a valuable foundation for those who wish to enter or advance in public health work while addressing a specific demand for the U.S. and the Commonwealth of Virginia.25

**Employment Demand**

The Bureau of Labor Statistics (BLS) predicts 5-19% growth in public health careers between 2016 and 2026.26 The variation stems from the kinds of jobs projected and the grouping provided by the BLS. In a review of the *Occupational Outlook Handbook* (OOH), jobs for public health professionals have been listed under various occupational groups. For instance, epidemiologists were listed under “Life, Physical, and Social Science” while health educators and community health workers have been listed as part of the “Community and Social Service Occupations” group. Overall, however, job growth among public health workers is expected to be greater than average between 2016 and 2026.

According to the OOH, the projected growth rate for major public health professions is expected to be much faster than the average for all occupations from 2016 to 2026 (see table below).23

<table>
<thead>
<tr>
<th>Public Health Occupation</th>
<th>% Growth from 2016 to 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiologists</td>
<td>6%</td>
</tr>
<tr>
<td>Health Educators and Community Health Workers</td>
<td>13%</td>
</tr>
<tr>
<td>Environmental Scientists and Specialists</td>
<td>11%</td>
</tr>
<tr>
<td>Medical and Health Services Managers</td>
<td>17%</td>
</tr>
</tbody>
</table>

The Virginia Employment Commission (VEC)\textsuperscript{27,28} provides further insight into the demand for public health jobs within the Commonwealth of Virgina. Data gathered from the VEC shows that the demand for most public health jobs is higher than the current pool of qualified candidates within the Commonwealth. For instance, as of February 13, 2018 there were 10 job openings for epidemiologists and only three potential candidates looking for work in this area were identified.\textsuperscript{28}

The demand for medical and health services managers is even higher. As of February 13, 2018 there were 465 job openings for medical and health services managers and only 184 potential candidates to fill the positions. In addition, employment of medical and health services managers, most of whom have at least a bachelor’s degree before entering the workforce, is projected to grow 17 percent from 2014 to 2024, much faster than the average for all occupations, according to the VEC. The demand for community health workers is twice the average for all occupations at 15%. Currently 2.67 candidates per job are available in Virginia.\textsuperscript{28} Employment of health educators and community health workers is projected to grow 13 percent from 2014 to 2024, faster than the average for all occupations.\textsuperscript{29}

Employer demand is evident in newly created and existing jobs that explicitly state that the applicant have a baccalaureate degree in public health to provide health education, health promotion, environmental safety, community-based health programs, and chronic disease management.\textsuperscript{30,31,32,33} A variety of positions are available in diverse employment sectors, including government, industry, health care systems, non-profit organizations, school systems, higher education, and small businesses.


Graduates of the existing Bachelor of Science in Health Science with a major in public health have been successful in finding employment. Students have secured internships and jobs with such well-known public health organizations as the Virginia Department of Health, American Red Cross, INOVA Health System, Carilion Clinic, among others.

The employer survey and results are provided in Appendix D. Samples of job announcements, available in Appendix E, provide evidence of the strong market for individuals who hold a baccalaureate degree in the field of public health.

Letters of support are available in Appendix F.

**Student Demand**

Student demand for the existing Bachelor of Science in Health Sciences with a major in public health has been strong during the most recent 5 years. In fact, after exceeding 100 undergraduate students during the 2013-2014 academic year, faculty addressed the need to reduce enrollment to a more manageable level for the faculty load. The following chart, compiled by Institutional Research at Old Dominion, demonstrates the results of this reduction.

<table>
<thead>
<tr>
<th>Head Count (public health major)</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>170</td>
<td>130</td>
<td>96</td>
</tr>
</tbody>
</table>

Continued demand for the undergraduate program in public health is reflected in interest expressed by incoming freshmen and transfer students. According to the Orientation staff at Old Dominion University, nearly 30-40 new students per year have expressed interest in the public health program during the last three academic years as demonstrated from the intended-major enrollments during the years 2012-2017.

A survey will be conducted….

The survey instrument and results are available in Appendix G.

Based on faculty analysis of student demand, the following projections are provided from the proposed program’s launch to the target year.
PROJECTED ENROLLMENTS IN PROPOSED PROGRAM

Assumptions
Retention percentage: 90%
Percentage of full-time students: 100%
Full-time student credit hours per semester: 15
Full-time students graduate in 4 years

Duplication
Currently, in Virginia, no baccalaureate degree in public health exists. Therefore, Old Dominion University will be the first institution with this offering. Several institutions have concentration or minor areas in public health, as noted below.

The University of Virginia offers an interdisciplinary Bachelor of Arts in Global Development with a minor in global public health. The program explores fundamental global health burdens, determinants of health, and health measures from the perspective of different disciplines, including public health, anthropology, sociology, politics, history, and cultural studies.

George Mason University offers a Bachelor of Science in Community Health and minors in public health and global health. The program provides students with a basic knowledge and understanding of community and public health systems, and issues and policies related to health promotion, health education and disease prevention in populations of all sizes.

James Madison University offers Bachelor of Science in Health Science with concentration in public health education. The program addresses content such as in community health, nutrition, environmental health and education methods for students who wish to serve in public health education or health-related positions in a wide variety of government, community, and voluntary health agencies, such as health departments and community-based health programs.
Projected Resource Needs for the Proposed Program

Resource Needs

The School of Community and Environmental Health has sufficient resources to launch and sustain the proposed program. Specifically, faculty members with expertise in public health, as well as associated resources, have been available in the undergraduate public health major, and will be maintained when the proposed program is launched.

The proposed program allocates 1.0 FTE of instructional effort for every 24.0 FTE of enrollment. The Bachelor of Science in Public Health will therefore require a total of 1.75 FTE of instructional effort in 2019-2020 when it is launched. By the target year, it will require 2.5 FTE in instructional effort.

Full-time Faculty
Two current faculty members in the School of Community and Environmental Health have a teaching load at 50% or more for this program. They will contribute 1.0 FTE of instructional effort when the program is launched, and 1.25 FTE by the target year.

Part-Time Faculty
Two current faculty members have a teaching load below 50% for this program. Their instructional effort will be .50 FTE when the program is launched and .75 FTE by the target year.

Adjunct Faculty
Two adjunct faculty members will teach in the proposed program. They will contribute .25 FTE in instructional effort when the program is launched and .50 FTE by the target year. These individuals will have combined pay in the amount of $6,750 (with $516 in fringes) at the outset of the program, and a total of $13,500 ($1,032 in fringes) by the target year.

Graduate Assistants
No graduate assistantships are required to launch and sustain the proposed program.

Classified Position
There is currently one full-time classified position within the School of Community and Environmental Health, an administrative assistant, who will assist faculty who teach in the proposed program (20% of this position’s time or $6,000 in salary and $2,226 in benefits).

Targeted financial aid
There is no targeted financial aid needed or available to launch and sustain the proposed program.

Library
The University Libraries will be able to fully support the proposed Bachelor of Science in Public Health. Print and micro journal collections are available for a variety of journals in the field,
including the American Journal of Public Health, and many others. Access to several health-related databases and Interlibrary Loan will facilitate finding and obtaining public health-related articles.

**Telecommunications**
No new telecommunication resources are required to launch and sustain the proposed program.

**Space**
No additional space is necessary to launch and sustain the proposed program.

**Equipment (including computers)**
No new equipment is necessary to launch and sustain the proposed program.

**Other resources (specify)**
No additional resources are required to launch and sustain the proposed program.

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### Resource Needs: Part A-D

**Part A: Answer the following questions about general budget information.**

- Has the institution submitted or will it submit an addendum budget request to cover one-time costs?  
  Yes _____ No ____ X

- Has the institution submitted or will it submit an addendum budget request to cover operating costs?  
  Yes _____ No ____ X

- Will there be any operating budget requests for this program that would exceed normal operating budget guidelines (for example, unusual faculty mix, faculty salaries, or resources)?  
  Yes _____ No ____ X

- Will each type of space for the proposed program be within projected guidelines?  
  Yes __ X __ No ____

- Will a capital outlay request in support of this program be forthcoming?  
  Yes _____ No ____ X
### Part B: Fill in the number of FTE and other positions needed for the program

<table>
<thead>
<tr>
<th>Program Initiation Year</th>
<th>Expected by Target Enrollment Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019-2020</td>
</tr>
<tr>
<td><strong>On-going and reallocated</strong></td>
<td><strong>Added (New)</strong></td>
</tr>
<tr>
<td>Full-time faculty FTE*</td>
<td>1.00</td>
</tr>
<tr>
<td>Part-time faculty FTE**</td>
<td>0.50</td>
</tr>
<tr>
<td>Adjunct faculty</td>
<td>0.25</td>
</tr>
<tr>
<td>Graduate assistants (HDCT)</td>
<td></td>
</tr>
<tr>
<td>Classified positions</td>
<td>0.20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1.95</strong></td>
</tr>
</tbody>
</table>

*Faculty dedicated to the program. **Faculty effort can be in the department or split with another unit. ***Added after initiation year
### Part C: Estimated resources to initiate and operate the program

<table>
<thead>
<tr>
<th></th>
<th>Program Initiation Year</th>
<th>Expected by Target Enrollment Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2019-2020</td>
<td>2023-2024</td>
</tr>
<tr>
<td>Full-time faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>salaries</td>
<td>$95,200</td>
<td>$23,800</td>
</tr>
<tr>
<td>fringe benefits</td>
<td>$36,718</td>
<td>$9,180</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time faculty (faculty FTE split with unit(s))</td>
<td></td>
<td></td>
</tr>
<tr>
<td>salaries</td>
<td>$47,600</td>
<td>$23,800</td>
</tr>
<tr>
<td>fringe benefits</td>
<td>$18,360</td>
<td>$9,180</td>
</tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Adjunct faculty</td>
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<td></td>
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<tr>
<td>salaries</td>
<td>$6,750</td>
<td>$6,750</td>
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<tr>
<td>fringe benefits</td>
<td>$516</td>
<td>$516</td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate assistants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>salaries</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>fringe benefits</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classified Positions</td>
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<td></td>
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<tr>
<td>salaries</td>
<td>$6,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>fringe benefits</td>
<td>$2,226</td>
<td>$2,226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel cost</td>
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<tr>
<td>salaries</td>
<td>$155,550</td>
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<tr>
<td>fringe benefits</td>
<td>$57,820</td>
<td>$0</td>
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<tr>
<td>Total personnel cost</td>
<td>$213,370</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>$213,370</td>
<td>$73,226</td>
</tr>
<tr>
<td></td>
<td>$286,596</td>
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</tr>
<tr>
<td>Equipment</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Library</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Telecommunication costs</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Other costs</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$213,370</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>$73,226</td>
<td>$286,596</td>
</tr>
</tbody>
</table>
Part D: Certification Statement(s)
The institution will require additional state funding to initiate and sustain this program.

Yes
Signature of Chief Academic Officer

No
Signature of Chief Academic Officer

If “no,” please complete Items 1, 2, and 3 below.

1. Estimated $$ and funding source to initiate and operate the program.

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Program initiation year</th>
<th>Target enrollment year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reallocation within the department</td>
<td>2019 - 2020</td>
<td>2023 - 2024</td>
</tr>
<tr>
<td><em>(Note below the impact this will have within the department.)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reallocation within the school or college</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Note below the impact this will have within the school or college.)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reallocation within the institution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Note below the impact this will have within the institution.)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other funding sources <em>(Specify and note if these are currently available or anticipated.)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Statement of Impact/Funding Source(s). A separate explanation is required for each source used.

Reallocation within the department: The School of Community and Environmental Health currently maintains a budget that includes funding for the Bachelor of Science in Health Sciences with a major in public health. These same funds will be used for the proposed Bachelor of Science in Public Health. Therefore, funding for the existing program will be reallocated for the Bachelor of Science in Public Health. No adverse impact in the school is anticipated as a result of launching the new program.

If resources are reallocated from another unit to support this proposal, the institution will **not** subsequently request additional state funding to restore those resources for their original purpose.

[ ] Agree

Signature of Chief Academic Officer

[ ] Disagree

Signature of Chief Academic Officer
Freshman Fall Semester (16-19 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 110C</td>
<td>3</td>
</tr>
<tr>
<td>MATH 162M</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 121N/122N</td>
<td>4</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 201S or SOC 201S</td>
<td>3</td>
</tr>
<tr>
<td>Language &amp; Culture*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Freshman Spring Semester (14-17 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 211C, or 221C, or 231C</td>
<td>3</td>
</tr>
<tr>
<td>STAT 130M</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 123N/124N</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 121N/122N</td>
<td>4</td>
</tr>
<tr>
<td>Language &amp; Culture*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Sophomore Fall Semester (16 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 123N/124N</td>
<td>4</td>
</tr>
<tr>
<td>Literature</td>
<td>3</td>
</tr>
<tr>
<td>CHP 200</td>
<td>3</td>
</tr>
<tr>
<td>ENVH 301</td>
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<tr>
<td>HLTH 150G</td>
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Sophomore Spring Semester (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 303</td>
<td>3</td>
</tr>
<tr>
<td>Interpreting the Past</td>
<td>3</td>
</tr>
<tr>
<td>Human Creativity</td>
<td>3</td>
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<tr>
<td>CHP 328</td>
<td>3</td>
</tr>
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</table>

Junior Fall Semester (13 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
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<td>CHP 335</td>
<td>3</td>
</tr>
<tr>
<td>CHP 390</td>
<td>3</td>
</tr>
<tr>
<td>PUBH 403W</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 240 or 250</td>
<td>4</td>
</tr>
</tbody>
</table>

Junior Spring Semester (16 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 111N</td>
<td>4</td>
</tr>
<tr>
<td>CHP 400</td>
<td>3</td>
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<td>CHP 461</td>
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<td>CHP 445</td>
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<td>CHP 415W or 430W</td>
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Senior Fall Semester (15 credits)

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<td>CHP 360</td>
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<td>CHP 450</td>
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<td>PUBH 421</td>
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<td>Option D: Upper Level General Ed</td>
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Senior Spring Semester (15 credits)

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<td>CHP 485</td>
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<td>CHP 468</td>
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<td>PUBH 441</td>
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<td>Option D: Upper Level General Ed</td>
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* may be waived

TOTAL: 120 credit hours
CHP 200. Principles of Public Health. 3 Credits.
Overview of the principles and practices of public health in the world. What is public health? What are its origins, evolution, and how is it structured and administered globally? A discussion of the mission, concepts, principles and practices of population-based public health will predominate. Topics will include global health and environmental health.

CHP 328. Public Health Science. 3 Credits.
This course is designed to expand knowledge of the core functions of public health: biostatistics, environmental sciences, epidemiology, health policy and management sciences, and social and behavioral sciences.

CHP 335. Population Health. 3 Credits.
This course provides a population-based approach to professional work in disease management, chronic care management and politics, in addition to students studying public health, health policy, quality and patient safety, health care administration, medicine, nursing, pharmacy, social work and other related clinical professions.

CHP 360. Introduction to Global Health. 3 Credits.
This course introduces students to health-care delivery systems of nonwestern countries, specifically developing countries. The various factors that influence health-care planning and delivery of health services are addressed.

CHP 390. The U.S. Healthcare Delivery System. 3 Credits.
The uniqueness of the U.S. healthcare delivery system will be explored in terms of a systems framework and its complexity. The basic characteristics that differentiate the U.S. healthcare delivery system from that of other countries will be presented. An understanding of the U.S. health care system has specific implications for health services managers.

CHP 400. Ethics in Health Administration. 3 Credits.
A survey of philosophical problems common to health sciences, including an analysis of the nature of health in its historical and contemporary contexts.

CHP 415W. Critical Issues in Public/Community Health Administration. 3 Credits.
Identification and analyses of critical issues currently facing public/community health and the American health care system. This is a writing intensive course.

CHP 430W. Community Health Resources and Health Promotion. 3 Credits.
Designed to provide information about community health resources. This is a writing intensive course.

CHP 445 Health Services Research. 3 Credits.
This course focuses on health services research and its assessment abilities and application in health care. Topics include the use of EXCEL, SAS, and SPSS to analyze data. An exploration of the issues and challenges of health services research for health related organizations and other organizations. Statistical procedures and practices will also be conducted.
CHP 450 Public and Community Health Administration. 3 Credits.
A review of the principles and practice of administering public and community health organizations and programs at federal, state, and local levels. Constitutional, statutory and administrative bases for organizing and conducting public/community health programs will be discussed.

CHP 461. Managerial Epidemiology. 3 Credits.
This course will blend theory and application of epidemiology. This course will also provide a comprehensive introduction to epidemiology and explain how to use epidemiological concepts and tools to improve decisions about the management of health services.

CHP 468. Internship. 1-3 Credits.
The internship will allow a person new to the health administration field to complete a capstone internship to gain entry skills for a beginning career pathway in health services administration. The course is intended to provide cumulative experience and assimilation of all the theoretical aspects learned in the coursework in a practical/work setting. Internship is the last course in the program coursework. A minimum of 200 hours is required.

CHP 485. Health Informatics. 3 Credits.
This course focuses on healthcare informatics (information systems) and applications in health care organizations. It provides an overview of health information system concepts, management, and integration of technology in healthcare organizations.

ENVH 301. Principles of Environmental Health Science. 3 Credits.
An introduction to the chemical, physical and biological factors affecting human health and well-being. The emphasis is on application of controls to prevent disease and maximize environmental quality.

PUBH 403W Social and Behavioral Aspects of Public Health. NEW. 3 credits
The course will emphasize the importance of social context and cultural construction, social and behavioral foundations of Public Health, examines current issues in health from a social and behavioral sciences perspective. The course uses a social ecological framework to address multilevel influences on health and enlarge the dominant "risk factor" approach to health behavior.

PUBH 415 One Health – One Medicine. NEW. 3 credits
This course will teach students the applications of multidisciplinary competencies towards solving human health challenges. The course will identify all areas of global health issues that require human, veterinary and environmental applications for solutions.

PUBH 421 Leadership in Public Health. NEW. 3 credits
The course will introduce students to the main theories of Leadership in Public Health covering key concepts and strategies using the six levels of leadership framework. The course will explore how individual, team, organizational, community, professional and global leadership impact population and public health.
PUBH 422 Health, Culture and Diversity – Reducing disparities in Public Health. NEW. 3 credits
The course will introduce students to the main theories of culture, health and diversity and examines what is meant by culture, the ways in which culture intersects with health issues, how public health efforts can benefit by understanding and working with cultural processes, and a brief selection of conceptual tools and research methods that are useful in identifying relationships between culture and health.

PUBH 441 Multi-Disciplinary Approaches to Suicide Prevention. NEW. 3 credits
Using readings from health sciences, public health, law and psychology, the course addresses multi-level influences on suicide and its prevention. Topics covered include suicide prevention-related ethical issues, terminology, attitudes and social norms, vulnerable populations, risk/protective factors, and public health approaches to prevention.
APPENDIX C
ABBREVIATED CURRICULUM VITAE

Muge Akpınar-Elçi, MD, 1991, Medicine, Dokuz Eylül University School of Medicine, Turkey, Professor of Community and Environmental Health. Specialization areas: environmental and occupational health, global health, research methods, epidemiology.

Praveen Durgampudi, MBBS, MPH 2002. Medicine, University of Health Sciences, India and Master of Public Health, University of Sheffield, UK. Associate Professor of Community and Environmental Health. Specialization areas: European public health, health economics and financial management, general public health, health policy and administration.

Ann Marie Kopitzke, PhD, 2009, Health Services Research, Old Dominion University. Lecturer of Community and Environmental Health. Specialization areas: health services research, health informatics, public policy.

Oluwaseyi Olayinka, M.B.Ch.B. 2006, Medicine, Obafemi Awolowo University, Nigeria. Lecturer of Community and Environmental Health. Specialization areas: managerial epidemiology, systemic review, community health administration.
APPENDIX G
STUDENT DEMAND—SURVEY