

# **Fitchburg State University**

Public Health Sciences
External Review 2025

#### **Executive Summary**

Fitchburg State University is a public university in Fitchburg, Massachusetts. It has 3,421 undergraduate and 1,238 graduate/continuing education students, for a total student body enrollment of 4,659. The university offers undergraduate and graduate degrees in 25 academic disciplines.

This report is only concerned with one program that exists within the Environmental, Geographic, and Public Health Science (PHS) Department, where there are six full-time faculty members; three full-time earth science faculty, one full-time geographic science faculty, two full-time physics faculty, and no public health full-time faculty. The program currently also houses the physics department. Where in lies the crux of the challenges to the Public Health Science Program.

This external reviewer report is based upon a request to review the newly formed Public Health Science Self-Study completed in March 2025 but covers the academic and programmatic years from 2019 to 2024, five academic years. It is the first self-study and external review since the program inception in 2019.

The department was able to add a tenure track faculty member to physics due to the retirement of a physics faculty member, but a search failed for a part-time temporary faculty member for the PHS department which is the only department that has shown exponential growth.

The self-study elucidates the many different features of the PHS department but overall the department needs a full-time tenure track faculty member in order to meets the needs of the department and PHS program, as well as needs of the students who recognize and cite a lack of public health expertise, a lack of adequate public health advising, lack of counseling in career options, and a lack of community for public health students.

The external reviewer would like to first thank the PHS self-study committee as well as Dr. Pat Marshall, Provost, Dr. Jannette McMenamy Dean of Health and Natural Sciences, and Dr. Liz Gordon for producing the self-study as well as handling the logistics of the external review with all the following interviewees: Dr. Jackie Kremer, Dean of the Library, Ms. Amanda Taylor, Adjunct Public Health Instructor, Dr. Jared Vanesse, Assistant Professor of Physics, Dr. Jiang Yu, Professor of Physics, Dr. Deborah Benes, Associate Professor in Nursing, Dr. Jane Huang, Professor in Geological Sciences, and the Public Health Practice students.

Sincerely,

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(The Public Health Science Self Study External Reviewer's report follows the sections as presented in the study. Questions presented by the reviewer are italicized and bold font in the report).

#### Fitchburg State University Public Health Sciences Self Study External Review

#### 1. Overview and vision

#### 1.1 Overview of department

"We also house Physics, ....."- there are two full-time physics faculty on staff, as well as two adjuncts in physics. Recommend changing the language since the physics department has affected the department and seems to be fully involved in the department and the PHS program.

The issue of the "failed search" should be taken up in a later section of the report (see assessment plan)

There seems to be only one part-time adjunct faculty member who has an MPH presently on staff. A full-time faculty with public health expertise does not exist within the department.

The environmental, geology, and physics faculty all seem to be well represented within the department for their respective disciplines, yet the numbers for the PHS majors remain relatively small in comparison to the other majors in the department, but the PHS program has been in existence for only five years.

Based on the conversation held during interviews with the administration there seems to be a strong desire at the administrative level to continue to pursue PHS as a program within the department, with the understanding that a full-time faculty member with public health expertise is needed if the program is to grow.

Because the PHS program is interdisciplinary at times it is challenging to decipher the specifics of just the portion of the self-study that pertains to the PHS program and is not combined with overall departmental metrics. Appendix B is unclear, and this reviewer could not find the breakdown clearly stated in the self-study in this appendix, the reviewer suggests a simple statement be included within the self-study.

#### 1.2 Program's vision, mission, and objectives

All the sections 1.2 in the self-study were and are comparable to standards of typical descriptions of vision, mission, and public health science objectives as written.

#### 1.2.1 Department Vision

#### 1.2.2 Department Mission

#### 1.2.3 Public Health Science objectives

#### 1.3 Relationship to the university mission, vision, and strategic plan

A challenge based on interactions with students is that the "partnership building with community in providing real world opportunities for our students and collaborative solutions to community issues" is a work in progress.

There was no mention of the program or department being an alternative to science, technology, engineering, and math (STEM) pathways, it is unclear if PHS holds a federal STEM designation.

#### 1.4 Overview of the program

It is clear there is strength in the environmental faculty expertise and the description of the Environmental Public Health (EPH) concentration, but less so for the Public Health Practice (PHP) concentration. This could be due to the lack of public health expertise which would provide a limited perspective of what practitioners in the practice of public health do beyond public health policy and interventions.

#### 1.4.1 Development of the program

The history of the program is admirable; it is a great accomplishment that in five years the building of the PHS program has been so successful. *Does the program or the department have a community advisory committee that would have experts in environmental health, public health practitioners, and others that would meet met on a regular basis to advise the PHS program concentrations?* 

The PHS program desires to apply for external accreditation by the Council on Education for Public Health (CEPH) in the future. The reviewer suggests that the program begin now to slowly review and address the new CEPH competencies for standalone baccalaureate programs (SBP) which were completed in December of 2024, whether they be curricular or programmatic.

The PHS program currently exists with two concentrations- EPH and PHP with improved curricular flexibility to fit the general education requirements of the university. Although it is stated that the revised curriculum is designed to address CEPH competencies this has not been demonstrated in any way, nor does the self-study follow the new and revised criteria. As the PHS moves forward, it is recommended that a table that has the updated CEPH foundational and concentration competencies be include indicating how the specific core and concentration courses align with CEPH competencies. There is no appendix with syllabi or assignment examples.

An example of the new CEPH changes is that the formerly called Public Health internship is now referred to as the "Applied Practice Experience" (APE) which is project based. It would be good to see

that the table presented in Appendix E illustrates which internships were done as faculty supervised independent research versus a more traditional or project-based internship or APE. Based on the CEPH requirements students will need to have more project-based experience. But tracking of the internship placements could also serve as a tool for partnerships and outreach for the program and students.

CEPH will require access to the syllabi that represents examples of core courses versus course required for concentrations. Eight (8) EHP courses are listed under the EHP listing instead of seven, that should be corrected.

## For the PHP do the students choose these courses in consultation with an advisor? How do you ensure that the students meet with the advisors at least once a semester for advice?

The reviewer suggests that the last two paragraphs on page 4 and the entire page 5 & 6 (up to section 1.5) be moved (between 2.2.1.1 Curriculum development and 2.2.1.2 Curriculum deployment) and a new section title created in the curriculum section.

#### 1.5 Internal demand of the program/department

It is concerning that there is a decline in student enrollment of the EPH concentration even though the department has more faculty expertise to teach those courses. Evidence-based, data driven decision making practice of public health should require that this be investigated since the department has the necessary full-time faculty expertise. The reviewer recommends that the department and program institute a review of why the enrollment numbers in the EHP concentration are decreasing. The reviewer also suggests that the Department conduct interviews and focus groups on this issue with both students and faculty.

Secondly, it was also stated in this section that the course PHS 2010 Epidemiology is being used as a research methods course. It would be helpful to see this syllabus to see whether an introduction to an epidemiology course meets that requirement.

#### 1.6 Recommendation and actions from previous review

No review or comments were needed in this section.

#### 1.7 Program initiatives and change since previous review

No review or comments were needed in this section.

#### 2. Assessment

#### 2.1 Program ingredients

The program states that the unique characteristic of the PHS Program at Fitchburg State University from other sister state institution programs is their strong environmental and geographic science

component although that program concentration is clearly suffering a decrease in enrollment. The program says the "project-based learning and field experience are focused on the Fitchburg region and tied closely to the local community" would need to be demonstrated whether this benefits both the EHP and PHP concentrations.

#### 2.1.1 Students

Upon closer inspection of the enrollment numbers, much of the growth has been due to internal transfers and not new incoming students. This is not a problem for the program itself, it shows that there are internal feeder mechanisms within the university and that work may be needed to potentially explore external pipeline mechanisms, especially considering the declining EPH student enrollment numbers. This potentially shows that the local and regional ties are questionable as a strength. An opportunity would be to transform the external ties into potential outreach and recruitment mechanisms.

The gender and racial and ethnic breakdown of the students reflect regional and national trends which may present an opportunity for the university to capitalize on those features, an example would be to have a speaker series or career expo that could highlight those demographics.

The reviewer suggests using the GIS map skills of students to track where the students come from using such data as their zip code or town.

The self-study also states that, "the department's policy in alignment with the MSCA contract which is for two students to serve on our departmental curriculum committee". The reviewer was not presented with any evidence or opportunity to speak with a student representative from this committee. Are there other opportunities or limitations encountered due to union contractual obligations that might impact the program and concentrations? What is the process to obtain student representatives for this contractual obligation for the curriculum committee? There was no mention of student involvement with decision making in the history of the program or department.

In discussion with the five female students (two were direct majors into the program and three were transfers from nursing) during the site visit, students expressed some disappointment with several areas of the program such as:

- Lack of a public health community
- Advising-No full-time faculty with public health expertise to advise or provide career counseling.
- They felt a lack of support for PHP.
- They reiterated the need for a student club.
- More opportunities for student involvement and leadership in the PHS program

Use of abbreviations in describing the internships should be corrected in this section for the reviewer was not familiar with them. The internship is now referred to by CEPH convention as Applied Practice Experience (APE) as previously mentioned. *Could the local community partnerships and APE sites be turned into opportunities for increasing enrollment or outreach to increase awareness of local* 

public health? Is there a manual that describes to both the student and preceptors the nature and goal of the APE? Do students get an orientation of expectations for the APE prior to the start of one? Is there advice given around the APE? Are the students required to showcase their APE experiences in any format such as at the undergraduate research day, where the program might invite the preceptor and sites to campus? The self-study does state that students must complete written and oral presentations of their APE.

#### 2.1.2 Faculty

Although the full-time faculty has an extensive environmental science background, which lends to the unique interdisciplinary expertise, public health expertise as a unique discipline is lacking among the faculty. The adjunct faculty member that teaches much of the foundational competencies in public health content was not included in this section and that is a missed opportunity, since the part-time adjunct faculty member is the only one with public health practice experience from a discipline and curriculum perspective. The new CEPH guidelines (see A3. Faculty Engagement part-time faculty) have a new section for part-time faculty since regionally and nationally many more departments and programs are dealing with doing more with less. This is the area that is sorely lacking in the department and concentration. In order to continue to have the present two PHS concentrations grow in the department it is highly recommended that the administration conduct a search for a full-time tenure track position as soon as possible. It is the reviewer's recommendation that the next faculty search emphasize the need for candidates with a public health generalist background at either the MPH or doctorate level as a preference.

The following sections (Sections 2.1.3 to 2.1.4.4) of the self-study do not need further comment other than they seem to be adequate for the size and scope of the department and program. Regional and national standards are met.

#### 2.2. Program processes

#### 2.2.1 Curriculum

#### 2.2.1.1 Curriculum development

Previously in the self-study it was mentioned (see section 1.4.1) that student involvement on the curriculum committee is contractual. What was the process for student involvement of the EPH and PHP curriculum development? Is there an advisory committee that was used before or after the faculty and student process?

#### 2.2.1.2 Curriculum deployment

The recommendation is that there is room for improvement with the four-year plan of study. Core competencies which CEPH refers to as Foundational Competencies are courses which should build on public health knowledge successively.

Example: A public health strategies course should come before an evaluation course, which would then give students an opportunity to use those competencies, skills, and knowledge when figuring out what to do for their APE.

One of the strengths of the PHS program is the opportunity for students to engage in faculty led study abroad offerings.

#### 2.2.1.3 Internships

As mentioned previously, please note that the language has changed for CEPH in this category. It is now referred to as Applied Practice Experience (APE). In appendix E it is not clear whether the students belong to the EPH or the PHP program. *Could the table in Appendix E be amended to include EPH or PHP? Were there any summer 24 or Fall 24 placements?* It would be helpful to understand successful placements. Appendix E also suggests that the bulk of the internship advising and site visits over the years is performed by Dr. Gordon. The reviewer recommends that a sample of the paperwork a student needs to give for the internship be included, as well as a sample of a student written and oral report.

#### 2.2.2 Student learning and supports

The language interpreted in this section rings of thinking about the PHS students from a "deficit" perspective. This suggests an unwanted and unanticipated challenge. There is a saying that goes" teach the students that you have until they become the students that you want," which suggest that the challenge is multifaceted (students and faculty components). Due to the interdisciplinary nature of the department, it is recommended to meet with the nursing and any other departments to discuss challenges and student success. Could the program conduct interviews and focus groups (maybe as a student capstone project) with the students in the program that are not transfers from Nursing and other programs, to better understand why PHS was their choice? Could the department or program consider offering presentations in nursing and other classes to students at some point about the PHS program ahead of time, so that students understand the options in PHS?

During the site visit a faculty member referenced this problem by saying that students were having challenges with the upper-level Geospatial courses. The reviewer questions whether an upper-level GIS course is essential in the PHP or EPH concentrations. *If so, is there potential room to consider upper-level Geospatial courses as electives?* 

#### 2.2.3 Faculty

#### 2.2.3.1 Teaching responsibilities

Teaching responsibilities in PHS concentrations with adequate public health expertise is a major concern. Only two full time faculty members teach a total of three PHS courses in the PHS program, otherwise a part-time adjunct member and nursing and others carry the remaining teaching responsibilities. When speaking with students, the lack of faculty expertise was a major concern. If a Fall 2025 hire is not possible, another choice would be to hire one to two more public health adjunct faculty members for PHS until a full-time tenured position search can be successfully conducted.

#### 2.2.3.2 Advising responsibilities

It is recommended that faculty only teaching in PHS advise PHS students. Both faculty and students mentioned how detrimental this was for the student morale and program overall. The reviewer noted from Appendix F (Table I) that Drs. Parsons and Vanasse don't teach any PHS specific courses. In the

reviewers' one-on-one with Dr. Vanasse it was clear that this was something that he did not enjoy or want to do, this reflected the sentiment echoed by the students.

#### 2.2.3.3 Faculty retention

Since there is no specific faculty in PHS, this section is not relevant other than factors that keep faculty should result in a successful faculty search and that was not the case. The reviewer suggests changing this section title to faculty recruitment and retention so that the lessons learned from the "failed" search mentioned in section 1.1 can be communicated. Why did the faculty search fail? What were the lessons learned? Did you gather any feedback from the potential candidates?

#### 2.3 Program Outcomes

#### 2.3.1 Student learning outcomes

The self-study stated that the PHP concentration focuses on "social determinants of health" (SDOH) in the table that maps outcomes to courses, some of these SDOH courses are selected by students but it doesn't seem to assure that students are gaining this knowledge. How is the PHS program assessing that students are acquiring needed knowledge? If there are courses that meet the requirement for the PHP learning outcome why not require that the students take those classes? There could still be some flexibility and substitution instead of asking students to "select 6 courses out of 31, with no more than three from any discipline".

The recommendation is to narrow the choices further within the seven disciplines listed for the PHP concentration. CEPH will now require programs to map foundational competencies and concentration competencies with assessment tools (specific courses, syllabi, and assignments).

Within the core requirement listing, 15 to 18 of the courses are not CEPH needed foundational competencies. The reviewer suggests taking this opportunity for the program to better align with CEPH foundational and concentration competencies requirements and options to build new courses in alignment with the new CEPH guidelines.

#### 2.3.2 Assessment summary

CEPH's new guidelines require programs to give an example of an assignment or a question on an exam in the courses that would assess these learning outcomes, not just the metric outcomes. Moving forward, all the learning outcomes will need to be assessed in both concentrations, since the majority of the SLO's were from Environmental Health.

The program learning outcome chart lists some courses as core courses when they are general education courses this should be corrected in the table.

#### 2.3.3 Other measures of student success

#### The reviewer recommends the PHS program consider the following:

• Folding in exit surveys at the end of the program to capture some of the data for tracking purposes.

- Invite alumni to be featured in a dedicated section of a student generated PHS newsletter- this can help in building community.
- Require students to set up a Linked in page that is done as part of the APE assignment.
- Consider establishing an assessment coordinator moving forward for CEPH work.

#### 3. Analysis and action plan

It is noted the PHS program is very new. Recommend that the department take on SMART (Specific, Measurable, Achievable, Relevant, and Timely) goal setting in this analysis section.

#### 3.1 Strengths and opportunities to build on strengths

The PHS (specifically PHP) has had increased enrollment since COVID-19, an opportunity of necessity exists to fill a full-time teaching faculty position with public health generalist whether (tenured track or teaching contract for 3-4 years). This is essential for the program to continue to exist. The personnel expertise is extensive for the environmental health science discipline but not as much for public health as understood throughout the department, the opportunity would be the addition of a public health generalist to bring more balance and a broader perspective within the department and concentrations.

A full-time PHS faculty member would also aid with the specific advising needed around career options in public health, and host of other areas where public health expertise is critical. The reviewer recommends the department or library invest in purchasing the advising faculty the book, "101+ Careers in Public Health" by Beth Seltzer, MD, MPH; Heather Krasna, MS, Ed.M. published by Springer Publishing by Fall 2025, to help with career counseling.

#### Public health curriculum advisory group

There was no evidence given to the reviewer that this group has ever met and no outcomes or recommendations made by this group were shown. As the PHS program moves forward, it is recommended that a list of names of advisory participants be included in the self-study, as well as the dates and meeting minutes.

The reviewer also suggests that in collaboration with Career Services and Advising that an annual Career Expo or workshop be planned and implemented in the Spring or Fall semester, and 75% of students attend and document their attendance. This type of event will aid students with APE and career opportunities. Appendix I -Career Action Plan should be linked back to section 2.3.3 discussion.

#### 3.2 Areas of, and strategies for, improvement

The reviewer recommends all the action steps and timelines in this section be numbered or designated in each section specifically be turned into SMART objectives and goals as previously mentioned.

#### Public Health Expertise

The department recognizes their need for a full-time teaching faculty position with public health generalist expertise (tenured track or teaching contract for 3-4 years) for Fall 2025. This should be the absolute number one priority for this department.

#### **Enrollments**

While it is true there are declining numbers of students in the EHP concentration, despite the expertise shown in this area of the department, what is also lacking is the career advising and ability to turn internships into potential career opportunities. Articulation agreements and increasing recruitment efforts will have an impact, but the results of this effort will lag at least a year behind. The immediate need should not be undertaken without the needed PHS faculty expertise in place. It is the student experience which is the hallmark of the program and in discussion with students, without advising and PHS expertise the program will suffer in this key area.

#### Curriculum and assessment

Action steps and timeline

The reviewer agrees with the action step put forward in self-study to examine core PHS curriculum for acceptance into the general education within two semesters of hiring a full-time faculty member. This will expand the outreach efforts and potentially expand the early college course offerings and strength the rationale for articulation agreements.

The reviewer would suggest PHS 2000-Public Health in the United States, PHS 3000-Environmental Health, and GEOG2400-Introduction to Geospatial Technologies as considerations to put forth for approval to the general education curriculum. Acknowledging that without seeing the syllabi for these courses or knowing the specifics of the general education requirements, and average timeline for the faculty and university processing, the reviewer cannot comment on the achievability and timeliness of this action.

As noted in this section and throughout the report the new CEPH guideline criteria for standalone baccalaureate programs (SBP) are available at this link:

 $\underline{https://ceph.org/about/org-info/criteria-procedures-documents/criteria-procedures/}$ 

2024 Accreditation Criteria for SBP

• Self-study template for Standalone Baccalaureate Programs (SBP)

https://ceph.org/about/org-info/criteria-procedures-documents/self-study-templates/

Action: Begin in AY 25 with the new criteria and templates outlined from CEPH, so that by AY 29 or AY 30 the self-study will be easily produced with clear data of implementation of "new" CEPH criteria versus criterion areas that have been in place for a while or since inception.

Turn the action statement that refers to "student success in introductory courses" into a SMART objective. This is an action that PHS students and a community advisory committee conversation could greatly contribute to the challenges of the PHS program.

Many times, departments and faculty do not see where and how their own actions might contribute to the challenges being experienced, and that it is just not a "student problem". This collective and upstream thinking is public health at its best. The challenge of "information literacy" is an opportunity to embed these areas within and outside of a course. What does the learning and pedagogy literature say about how to help students and the department be successful together?

Consider a professional development workshop on writing instructions for faculty and on these desired keys skills and informational literacy for students. Consider contacting the Department of Education at Fitchburg State University to set up a professional development workshop or a seminar series on teaching and learning.

It is known that most PhD programs do not teach faculty how to teach. The reviewer would suggest considering how to incorporate the science of teaching and learning as professional development to decrease the bias inherent in the student deficit theories.

#### Strengthening community

The discussion noted in this section is thoughtful and shows the PHS program is listening to the students, and others. SMART goals and objectives should also be used here as well.

#### An example:

Action: Host one welcome event in the Fall 2025 semester that is evaluated using evidence-based evaluation methods. Engage at least 2% of senior PHP students by invitation to take part in designing, planning, marketing, implementing, analyzing results, and the dissemination of results to the larger community.

Timeline: Fall semester 2025 event with results to be disseminated at least one week prior to finals or the end of the academic semester.

As mentioned prior, have students engage and design a PHS newsletter with both EHP and PHP focus that could be disseminated via social media and other approved department and university communications. This type of project could be a capstone or internal internship for PHP students.

The reviewer suggests that the department and students be encouraged to attend the local, state, regional, and/or national public health association conferences (Massachusetts Public Health Association).

Association, Massachusetts Public Health Alliance, American Public Health Association).

The reviewer recommends reconfiguring the action item stated in this section into a more achievable goal or goals. Start with small specific, measurable, achievable, relevant, and timely not only for faculty and department, but with consideration of student engagement.

#### 3.3 Resources to accomplish the plan.

The reviewer agrees that the actions and recommendations listed above are not financially taxing, but the largest financial investment is the desired and necessary full-time faculty position. The success of the entire self-study and action plan is contingent on a faculty search as stated, "The growth of our (entire) public health program will continue to be limited without a dedicated faculty member".

#### 3.4 Action plan in table format

Recommend amending the action plan in table format (consider logic model table) based on potential adoption of changes and recommendations to be amended as necessary based on reviewer's feedback.

#### Assess current state of the program

The program has not met the criteria for full-time public health expertise and would not meet CEPH standards as it currently exists. An adequate number of adjunct faculty at a minimum would be needed to provide sufficient evidence to cover foundational and concentration competencies. Because of this overarching departmental challenge, the program failed to provide evidence on how well the program prepares students for public health careers (advising) and/or opportunities for advanced study in the discipline. There were no appendices or tables that demonstrated student post-graduation employment or advanced study in public health.

The self-study elucidated the department plans for change and continued improvement. The department recognized and named the most outstanding challenges in the assessment plan and reasonable corrective action in the assessment plan. As stated, the department's PHS program is only five years old and in its infancy as a program with concentrations. Great opportunities exist for the PHS program to grow regionally considering the demand if corrective actions are taken as soon as possible.

#### Regional and National professional norms

Consider establishing Memorandums of Understanding (MOU's) agreements with local, regional, and state public health organizations, initiatives, and nonprofits.

Consider setting up the new self-study, as though it were a CEPH SBP application that incorporates the new criteria guidelines of December 2024, it will make it much easier when and if the department decides to become accredited in the future by CEPH (see section 3.2, subsection curriculum and assessment).