

**PROGRAM POLICY STATEMENT**

**Doctor of Philosophy (PhD) in Health Behavior Science and Promotion**

**Department of Behavioral Health and Nutrition**

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8. **Executive Summary**

In a College of Health Sciences town hall meeting, President Assanis identified growing graduate program offerings as a priority for our University and College.1 Beginning fall 2018, The Department of Behavioral Health and Nutrition is seeking to implement two Doctor of Philosophy degrees: a Doctor of Philosophy in Health Behavior Science and Promotion and a Doctor of Philosophy in Nutrition Science (Figure 1). While separate, these PhD programs will have extensive resource sharing, thus maximizing impact (e.g., student recruitment and scientific workforce development) and efficiency.

*Rationale for Separate Programs*: Nutrition Science and Health Behavior Science and Promotion are separate programs within the Department of Behavioral Health and Nutrition, and, are recognized as distinctly different disciplines in academic and industry contexts. Nutrition Science focuses on the physiological and biological aspects of foods and nutrients and their absorption, assimilation, biosynthesis, catabolism and excretion. Nutrition Science also seeks to identify effective strategies to improve the dietary intake among individuals and specific sub-groups (i.e., older adults, children) to prevent and treat disease, improving health and promoting successful aging. Health Behavior Science and Promotion is the study of creating and promoting sustainable behavior change to obtain optimal quality of life. Health Behavior Scientists determine how actions, cognitions, communications, and the environment affect relationships, health and chronic disease across the lifespan. In recognition of these differences, two separate programs, are being proposed (Figure 1). Each program will have 15 credit hours of discipline specific content.

*Key Points of Resource Sharing:* As illustrated in **Figure 1**, while the Doctor of Philosophy in Health Behavior Science and Promotion, and the Doctor of Philosophy Nutrition Science are separate programs, 15 credit hours of required research courses will be shared across the two programs since these competencies and skills are common to both programs and disciplines. Likewise, students from both programs will have access to the same elective courses, and faculty from both programs will be available to serve on Dissertation Committees. The proposed doctor of philosophy programs will share many of the same Procedures and Policies (e.g., general admission requirements, deadlines, timetable and satisfactory progress toward degree standards). The only items that will differ between the two doctor of philosophy programs is the Discipline Specific Content Courses.



The current document presents the program policy statement for the Doctor of Philosophy in Health Behavior Science and Promotion (HBS PhD Program).

**II: Program History**

A. Context, Purpose, Planning Process, and Expectations.

*A.1. Context.*

Epidemiological and demographic trends have given rise to careers in health behavior science, with careers in population health showing unprecedented growth that is projected to continue at an increase of 15% in the next 10 years.2 Epidemiological transitions have resulted in shifts from infectious disease and undernutrition, to chronic conditions such as over-nutrition (obesity), cardiovascular disease and cancer, being the primary causes of death and disability.3 Thus, healthcare has started to move from a treatment focus to a more prevention-based model. Moreover, poor nutrition and inactivity are widely recognized as the leading health care challenge of the 21st Century.4 Converging with these epidemiological trends, are demographic shifts showing an increasing proportion of the population who are over the age of 65 years and in lower socio-economic strata, that are only expected to add to the chronic disease burden.5,6 Addressing the healthcare needs presented by these changes requires multidisciplinary teams that include health behavior scientists who have expert training in disease and health behavior evaluation, prevention and management, at the individual, community, and population levels.6

*A.2. Purpose.*

The purpose of this proposal is to create a Health Behavior Science and Promotion (HBS) PhD program within the Department of Behavioral Health and Nutrition (BHAN) in the College of Health Sciences. This purpose directly aligns with, and advances, the University of Delaware and College of Health Sciences agenda to expand the number of graduate students and PhD degree offerings at the institution to meet healthcare demands locally and nationally.1

*A.3. Planning Process.*

Beginning in fall 2015, the Department of BHAN formed a PhD planning committee which met bi-monthly to evaluate the need for the proposed programs. This included evaluating similar PhD programs internal and external to the University of Delaware. Using the information gathered, expectations and design for such a program were conceptualized. Starting in fall 2016, the planning committee met monthly and consulted with the following individuals within the College of Health Sciences: Deputy Dean, Dr. Susan Hall, Associate Dean for Research, Dr. Adam Davey and faculty across the College of Health Sciences who currently administer PhD programs (Dr. David G. Edwards, Applied Physiology, Dr. Samuel Lee, BIOMS) to refine the program’s design and content. Draft copies of the proposal were then circulated in the following order: (1) Department of Behavioral Health and Nutrition faculty, (2) Department of Behavioral Health and Nutrition Chair, (3) Deputy Dean of the College of Health Sciences, Dr. Susan Hall, and, (4) Director of graduate students, Dr. Mary Martin. A meeting of the Behavioral Health and Nutrition faculty was held for discussion of the proposal, with input incorporated into a revised proposal draft. The revised draft of the proposal was reviewed and approved by the BHAN (department) and BHAN curriculum committee.

*A.4. Expectations.*

The HBS PhD provides the highest degree for health promotion and behavioral science professionals, preparing graduates for research careers in many settings, including academia, non-governmental organizations (business and non-profit), allied health fields, and public service at all levels of national government. The curriculum will provide graduate students with the training needed to become effective scientific practitioners with the capacity to conduct independent research in health-related outcomes and promotion, in applied and academic settings. Completion of a high-quality PhD dissertation, based on original research, is a key feature of the academic program. Students’ capacity to complete dissertation research is developed through a rigorous curriculum designed to bring students to the intellectual forefront of their discipline. The research emphasis of the Health Behavior Science and Promotion field is on the individual (including cognitive and affective domains), social, behavioral and environmental determinants of health and health behavior change across levels of the social ecological model, and the development of high quality, evidence-based health promotion interventions.

B. Current Status.

The HBS PhD Program will enroll students beginning in fall 2018 and will be reviewed for permanent status in fall 2023.

C. Degree Offered.

The degree awarded to those who complete this program will be a Doctor of Philosophy in Health Behavior Science and Promotion (HBS PhD).

1Assanis D, University of Delaware, President’s Address to Faculty. College of Health Sciences, Town Hall Meeting; September 19 2016; STAR Campus, University of Delaware.

2 U.S. Bureau of Labor Statistics. Occupational Outlook Handbook. 2013. <http://www.bls.gov/ooh/community-and-social-service/health-educators.htm#tab-6.> Accessed November 20 2016.

3Omran AR. The epidemiologic transition: a theory of the epidemiology of population change. 1971. Milbank Q. 2005; 83(4):731-57. doi:10.1111/j.1468-0009.2005.00398.x

4 Gaziano JM. Fifth phase of the epidemiologic transition: the age of obesity and inactivity. JAMA. 2010; 303(3):275-6. doi:10.1001/jama.2009.2025

5 Dall TM, Gallo PD, Chakrabarti R, West T, Semilla AP, Storm MV. An aging population and growing disease burden will require a large and specialized health care workforce by 2025. Health Aff (Millwood). 2013; 32(11):2013-20. doi:10.1377/hlthaff.2013.071

6 Bodenheimer T, Chen E, Bennett HD. Confronting the growing burden of chronic disease: can the U.S. health care workforce do the job? Health Aff (Millwood). 2009; 28(1):64-74. doi:10.1377/hlthaff.28.1.64

**III: Admission**

A. Admission Criteria and Requirements

*A1. Criteria*

Applicants from diverse educational and professional backgrounds in health behavior science and promotion or a related science/health field, who have a strong interest in health behavior science and Promotion, are encouraged to apply. Each application will be evaluated individually on the basis of these key areas:

1. Academic record/achievement;
2. Work, research, and/or community experience;
3. Matching interest with, and availability of, current HBS faculty to serve as the students’ faculty advisor; and,
4. Commitment to, and, interest in the individual, social, behavioral and environmental determinants of health, health behavior change across levels of the social ecological model, and the development of high quality evidence based health promotion programs.

*A2. Requirements*

Applicants must submit all materials directly to the University of Delaware Office of Graduate and Professional Education using the online admission process before admission can be considered. Admission applications are available at: <https://grad-admissions.udel.edu/apply/>.

Admission decisions will be made by the Health Behavior Science and Promotion (HBS) PhD Program Committee (“HBS PhD Program Committee”). Students will be admitted to the program based on enrollment availability, the availability of faculty mentorship, and their ability to meet the following **minimum** recommended entrance requirements:

1. A Master’s Degree in a related field from an accredited college or university with a GPA > 3.3 **or** a Bachelor’s Degree in a related field from an accredited college or university with an undergraduate GPA > 3.3 for the MS to PhD bypass option.
2. Verbal GRE (≥50th percentile) within past 5 years.
3. Quantitative GRE (≥50th percentile) within past 5 years.
4. TOEFL (Test of English as a Foreign Language) score of at least 600 (paper based), or TOEFL IBT minimum score of 100.

B. Prior Degree Requirement.

A completed master’s degree in health promotion, public health or the related social and behavioral sciences is required for admittance to the HBS PhD Program.

Students enrolled in the MS in Health Promotion (currently offered within the Department of Behavioral Health and Nutrition) may apply to the HBS PhD program after completion of their first year and with agreement in writing from their MS advisor. If admitted, they may begin their HBS PhD program in their second year within the Department. Students applying to the MS to PhD bypass option must: (1) have exceptional performance during the first year of the Master’s program, (2) have the approval of the HBS graduate programs committee and their advisor, and, (3) have completed a bachelor’s degree in health promotion, public health or the related social and behavioral sciences from an accredited university.

C. Application Deadlines.

Applications (all materials) for the HBS PhD Program will be reviewed on a rolling basis between January 15 and March 15 for admission to the program at the beginning of the following fall semester. Since application decisions will be made on a rolling basis within this timeframe (January 15th – March 15th), applicants are strongly advised to complete and submit applications as early as possible. The materials required for the application to be considered complete are: application form, undergraduate/graduate transcripts, official GRE scores, three (or more) letters of recommendation, curriculum vitae, and a graduate application essay. Directions for the graduate application essay may be found on the University of Delaware’s graduate and professional education website. In addition, applicants should explain in the graduate application essay how their own research interests relate to those of at least two Health Behavior Science and Promotion faculty members.

The admission process at the Department level will be completed as follows: completed applications will be reviewed by the HBS graduate program committee, and, applicants who meet the admission criteria will then have their application file circulated to the entire graduate HBS faculty including faculty who have been identified by candidates as having shared research interests. Faculty members will provide feedback on each applicant to the HBS graduate program committee. Faculty identified by applicants as having shared research interests will also comment on his/her willingness and ability (in terms of time and funding) to serve as the applicant’s advisor. A faculty member can advise no more than two HBS PhD students simultaneously (regardless of where the students are in their course of study). The goal is for faculty to advise/mentor students whose background, goals and objectives are compatible with their own research and funding. Only qualified applicants who have a potential faculty advisor will be invited to complete an interview. To be admitted to the HBS PhD program, a student must have a faculty advisor. The HBS graduate program committee in conjunction with potential advisors will make final decisions on admission. Admission to the program is limited and not all qualified applicants will be admitted.

Admitted students will begin the program in the fall semester.

D. Admission Categories.

Students may be admitted into the program in one of three categories:

1. Admitted with full assistantship that provides tuition and a stipend support
2. Admitted with partial assistantship that provides tuition support
3. Admitted with no assistantship support

Graduate Assistantship support will be provided only to full-time students on a year-to-year basis.

E. Application Documents Required.

Applicants are expected to submit:

1. A graduate application essay (see section C).
2. Current curriculum vitae.
3. A minimum of three letters of recommendation (it is recommended that at least two be from academic references).
4. Official transcripts and GRE scores.

F. BHAN Statement of Diversity and Inclusion

The Department of Behavioral Health and Nutrition (BHAN) is committed to sharing values of diversity and inclusion. We believe that we can best promote and endorse these values by recruiting and retaining a diverse group of students, faculty and staff and by creating a climate of respect that is supportive of their academic success. This climate for diversity and inclusion is central to achieving our academic potential through research and scholarship, teaching, and service.

The Department of Behavioral Health and Nutrition gives definition to this climate of a diverse and inclusive community by encouraging and valuing:

1. **Equitable Access to our Departments Programs and Practices:** We implement academic programs and scholarly practices that seek to provide equitable access and enable all students to grow academically. Specific strategies that we keenly use include:

* Active participation in the annual, 6-day College of Health Sciences Summer Camp that provides a deep exploration into health sciences majors and careers for traditionally underrepresented students (i.e., minority, low-income, or (soon to be) first generation students).
* The provision of a dynamic and up-to-date BHAN website that utilizes culturally diverse images and engages current and potential students, as well as their families, in learning about our on-going programs.
* We are dedicated engaged with the Ronald E. McNair Post Baccalaureate Achievement Program (the McNair’s Scholars Program). The McNair Scholars program is renowned for preparing traditionally underrepresented groups for graduate education.
* We seek to recruit students from Historically Black Colleges (HBCUs) and other Minority Serving Institutions (MSIs) and organizations. Specifically, we engage with central organizations such as The Delaware Valley Consortium for Excellence & Equity (formerly the Delaware Valley Minority Student Achievement Consortium or DVMSAC), and The New Jersey Network to Close the Achievement Gaps to directly market our academic programs to traditionally underserved groups.

1. **Inclusive Teaching and Learning:** We are rigorous and empathetic teachers who collectively seek to examine and revise our curriculum and teaching practices as necessary to ensure that we are effective in helping all students achieve their academic potential. Specific strategies that we use to promote inclusive teaching and learning include:

* Prior to the start of each academic year, graduate students and faculty can participate in an intensive one-day in-service training on *Cultural and Linguistic Competence Express: Preparing to Become Culturally & Linguistically Competence Health Professionals*. This interactive training focuses on individual cultural competence and specifically works to build participant’s cultural awareness, knowledge and skills. At the conclusion of the training, attendees are encouraged to develop a cultural competence plan for an aspect of their work in the coming academic year.
* Faculty are trained and actively encouraged to connect students (both direct advisees and any student who solicits help) with professional groups and organizations that promote diversity and assist in establishing networks as per the university resource listing: <http://grad.udel.edu/students/diversity-inclusion/national-diversity-resources>
* All PhD students in the program will be provided with a tailored advising and mentoring plan that will be designed to maximize academic success. The University of Delaware’s Diversity and Inclusion resources will be consulted in the development of this plan (please see <https://www1.udel.edu/gradoffice/diversity/external.html> for a listing of these resources).

G. University Statement.

Admission to the graduate program is competitive. Those who meet stated requirements are not guaranteed admission, nor are those who fail to meet all of those requirements necessarily precluded from admission if they offer other appropriate strengths as determined by the HBS graduate program committee.

**IV: Academic Degree: Doctor of Philosophy in Health Behavior Science and Promotion (HBS PhD Program)**

* + - 1. Degree Requirements.

A1. *Coursework and Credit Hours*

The HBS PhD program requires completion of a minimum of 48 credits that are designed to be completed over a 4-year period. An outline of the 48 required credits are provided in Table 1.

Students who have had substantially similar courses to one or more of those required prior to entering the HBS PhD may substitute other appropriate courses with the approval of the advisor, and the HBS graduate programs committee, and the completion/approval of the course substitution form required by the office of professional and graduate education. A maximum of 9 credits may be substituted in the program of study. Only those courses in the 600, 800 and 900 levels can apply towards the HBS PhD. Independent study courses will be accepted based on approval of the student’s advisor and the HBS graduate programs committee. A maximum of 3 independent research study credits may be included in the program of study.

|  |  |
| --- | --- |
| **Table 1**: Outline of HBS PhD Program Coursework | **# Credits** |
|  |
| HLPR803 Advanced Health Promotion Programming | 3 credits |
| HLPR804 Advanced Health Promotion Program Evaluation | 3 credits |
| HLPR 809 Health Behavior Theory | 3 credits |
| HLPR820 Social and Environmental Determinants of Health *(new course application in appendix)* | 3 credits |
| Core Elective based on research interests and approved by advisor (possible list in appendix) | 3 credits |
| BHAN855 Qualitative and Mixed Methods in Health Sciences  *(new course application in appendix)* | 3 credits |
| BHAN856 Multivariable Biostatistics for Population Health  *(new course application in appendix)* | 3 credits |
| Statistics or Data Analysis Electives  *(List of* ***possible*** *statistics electives provided in Appendix; electives are approved by advisor)* | 9 credits |
| **ELECTIVE COURSE (**1 course, 3 credits) | 3 credits |
| *List of possible electives provided in appendix A; elective is chosen and approved by advisor* |  |
| BHAN Seminar | 0 credits |
| Preliminary Examinations | 0 credits |
| HLPR868 Independent Research | 6 credits |
| HLPR969 Dissertation Research | 9 credits |
| **TOTAL CREDITS** | 48 Credits |

*A2. Planned Program of Study*

Students are required to develop a curricular program of study with their advisor during the first semester of study. Depending on the student’s background and interests, the program of study may include courses beyond the minimum number required for the degree. The planned program of study must first be approved by the student’s advisor.  A typical plan for the program of study (**showing only the *minimum* requirements for the degree**) is shown in Table 2. Please see **Section III Item F.2.** for information about development of student advising and mentoring plans.

**Table 2:** Sample Plan for HBS PhD Program of Study

\*Note that *sustaining* in this context means that the student is still classified as a full-time student but no tuition dollars have to be paid by the student or the home Department.

|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** |
| --- | --- | --- | --- | --- |
| **Fall** | * BHAN Seminar (0) * HLPR803 Advanced Health Promotion Programming (3) * BHAN855 Qualitative and Mixed Methods Research in Health Sciences (3) * HLPR820 Social and Environmental Determinants of Health (3) * HLPR868 Independent Research (1) | * BHAN Seminar (0) * HLPR809 Health Behavior Theory (3) * Statistics Elective (3) * Statistics Elective (3) * HLPR868 Independent Research (1) | * BHAN Seminar (0) * HLPR969 Dissertation Research (9) | * BHAN Seminar (0)   \*Sustaining |
| **Winter** |  |  |  |  |
| **Spring** | * HLPR804 Advanced Health Promotion Program Evaluation (3) * Core Elective (3) * BHAN856 Multivariate Biostatistics for Population Health (3) * HLPR868 Independent Research (1) | * Statistics Elective (3) * General Elective (3) * HLPR868 Independent Research (3) | \*Sustaining | \*Sustaining   * Final doctoral dissertation defense. |
| **Summer** | *Research (0)* | *Research (0)*   * Preliminary Exams   And Doctoral proposal defense *(have to be completed by August 1)* | *Research (0)* |  |

**Table 2b:** Sample Plan for HBS PhD Bypass Option

|  | **MS Year 1** |
| --- | --- |
| Fall | HLPR809 Health Behavior Theory (3)  BHAN609 Research Design (3)  HLPR632 Health Science Data Analysis (3) |
| Winter |  |
| Spring | One Statistics course (3)  HLPR823 Human Response to Stress (3) |
| Summer | *Apply to MS/PhD program bypass option)* |

|  | **Year 1** | **Year 2** | **Year 3** | **Year 4** |
| --- | --- | --- | --- | --- |
| **Fall** | * BHAN Seminar (0) * HLPR803 Advanced Health Promotion Programming (3) * BHAN855 Qualitative and Mixed Methods in Health Sciences (3) * HLPR820 Social and Environmental Determinants of Health (3) * HLPR868 Independent Research (1) | * BHAN Seminar (0) * HLPR809 Health Behavior Theory (3) * Statistics Elective (3) * Statistics Elective (3) * HLPR868 Independent Research (1) | * BHAN Seminar (0) * HLPR969 Dissertation Research (9) | * BHAN Seminar (0)   \*Sustaining |
| **Winter** |  |  |  |  |
| **Spring** | * HLPR804 Advanced Health Promotion Program Evaluation (3) * Core Elective (3) * BHAN856 Multivariable Biostatistics for Population Health (3) * HLPR868 Independent Research (1) | * Statistics Elective (3) * General Elective (3) * HLPR868 Independent Research (3) | \*Sustaining | \*Sustaining   * Final doctoral dissertation defense. |
| **Summer** | *Research (0)* | *Research (0)*   * Preliminary Exams   And Doctoral proposal defense *(have to be completed by August 1)* | *Research (0)* |  |

*A3. Residency Requirement*

While students who receive graduate assistantships will require at least 8 academic semesters to complete the HBS PhD degree, self-funded students may complete the requirements in a minimum of 6 academic semesters. At least one continuous academic year must be devoted exclusively to full-time study (6 credit hours per semester for a student receiving an assistantship; 9 credit hours per semester for a student not on assistantship) in Health Behavior Science and Promotion in residence at the University of Delaware. This residency requirement may be fulfilled using a fall and spring semester combination or a spring and fall semester combination, but summer and winter sessions do not count toward the residency requirement.

*A4*. Progress Requirements

Students must convene their dissertation committee during the second semester of study and yearly thereafter to formally share progress towards their degree. Upon completion of the meeting, the student must complete a meeting report that is then reviewed and approved by the dissertation chair/advisor before sharing with the dissertation committee and graduate programs committee. Students who do not have committee meetings in a timely manner will be considered as failing to progress and will be required to meet with the HBS Graduate Programs Committee to determine whether a recommendation for dismissal from the program is warranted.

*A5. Preliminary Examination Requirement*

Students must pass a written preliminary examination that tests their general knowledge base in health behavior science and promotion and their ability to critically evaluate scientific literature. Specific details are as follows:

1. The HBS graduate programs committee will have responsibility for the written examination, including writing and grading examination questions.
2. Content of the written exam will be based on health behavior science and promotion coursework taken during the student’s first three semesters of the academic program.
3. The preliminary exam must be completed by August 1 in the summer session prior to the third academic year.
4. The written examinations are graded on a pass/fail basis, with a letter grade of C or greater indicating “pass”. Students who fail the preliminary examination will be provided a marked copy of their exam, and have a feedback session with their advisor where areas to improve will be discussed. Students have one opportunity to retake and pass the examination. The retake must be taken within 2 months. A failure on the re-take would result in dismissal from the PhD program and students have the option to complete the Master’s (MS) in Health Promotion degree pending the completion of any outstanding coursework.
5. Students must pass the preliminary examination requirement before proceeding to the dissertation proposal defense.

The PhD Dissertation committee (led by the student’s chair/advisor) will determine on a case by case basis the composition of re-examinations.

*A6. Dissertation Proposal Defense and Dissertation Defense Requirements*

Students in the HBS PhD Program should complete an oral dissertation proposal defense prior to the

start of their fifth semester of enrollment. Prior to the presentation, the student should have prepared

their full IRB package (i.e., protocol, consent, HIPAA, measures). Following the successful defense of

the dissertation proposal, the student should submit their IRB materials as soon as possible. IRB approval documentation should be shared with the Dissertation Thesis Advisor upon receipt.

Procedures for the dissertation proposal defense and the dissertation defense are the same. The

written dissertation proposal and the written dissertation will be made available to the student’s PhD dissertation committee members at least two weeks prior to the oral defense dates. The oral defense meetings will include both a defense of the student's proposed or completed dissertation research and an in-depth examination of the student's knowledge of their research specialization. Students are expected to demonstrate competency in both oral and written communication skills.  All BHAN faculty and students will be invited to attend the oral defense meetings.

Following the oral presentation and questions from faculty/students in attendance, the Dissertation Committee will meet separately to ask questions to the candidate. Once all questions have been answered the candidate will leave the room and the Dissertation Committee will vote on the outcome. The possible outcomes of the oral defense are:

1. Pass. The student may proceed to the next stage of his/her degree training.
2. Conditional pass. In the event that the dissertation committee feels the student's proposal/dissertation materials were generally acceptable but with a specific deficiency, condition(s) will be specified that the student must revise to achieve a Pass and proceed.
3. Re-examination. This result is appropriate for a student whose proposal/dissertation materials are unsatisfactory, but displayed evidence of the potential for extensive revision. Re-examination must be completed within one semester or three months (whichever is longer). The possible outcomes of the re-examination are pass or failure. The student may not defend either a proposal or a completed dissertation a third time.
4. Failure. This outcome would indicate that dissertation committee considers the proposal/dissertation materials completely inadequate and without potential to be revised satisfactorily. Any student who fails the proposal or dissertation defense a second time will not be eligibility to retake or enter candidacy. In this case, the student would be recommended for dismissal from the program and the award of the Master’s (MS) in Health Promotion degree pending the completion of any outstanding coursework.

The outcome will be presented to the student, along with any conditions or requirements for proposal or dissertation revisions. For conditional pass, specific deficiencies or conditions must be addressed within two months of the original oral defense date. For re-examination, the oral defense must be completed within one semester. The possible outcomes of the re-examination are pass or failure. The student may not take the exam a third time.

Once the proposal defense has been successfully completed, the student must apply to the graduate school for admission into candidacy.

*A7. Dissertation Format:* The Department supports both a traditional and article style (“Three Paper”) dissertation format. While the scope and expectations for the HBS PhD dissertation is provided elsewhere, the table below depicts the general content for both formats.

**Table 3:** Content Overview for the conventional and article style dissertation\*

|  | **Traditional Dissertation** | **Three Papers Dissertation**  *(papers do not have to be published to meet requirement)* |
| --- | --- | --- |
|  |  |  |
| Introduction and Outline of the Problem | √ |  |
| Introduction to the Overall Topic |  | Include the logical link between the three papers |
| Conceptual or Theoretical Framework | √ | √ |
| Literature Review | √ | Included in three papers |
| Methodology | √ | Included in three papers |
| Results (Research Findings) | √ | Included in three papers |
| Three separate, publishable papers (each to include an introduction and conclusion) of normal journal article length related to the overall theme |  | * First Paper * Second Paper * Third Paper |
| Summary, Interpretations, Conclusions, Recommendations for Policy and/or Further Research | √ | Concluding scholarly discussion of the implications of the integrated findings |
| Resources | √ | Included in three papers |
| Appendices | optional | optional |

*\*Adapted from Indiana University Richard M Fairbanks School of Public Health*

B. Faculty Advisors and PhD Dissertation Committees

*B1. Faculty Advisors.*

During the application process, each student will nominate two HBS faculty members with which they share research interests. At least one faculty member must be willing and have the time to serve as advisor and to accept responsibility for oversight of the student’s academic progress in the program. Final faculty advisor selection will be made by the HBS Graduate programs committee and will be based on converging research interests and faculty availability. PhD student faculty advisors can advise no more than two HBS PhD students simultaneously (regardless of where the students are in their respective HBS PhD Programs).

If, during the course of a student's academic program, the faculty advisor is unable or unwilling to continue as advisor, the student will work with the HBS graduate programs committee to identify another faculty member willing to be the new advisor. The new advisor must be identified within 2 months in order for the student to be considered making satisfactory progress toward the degree. Switching advisors does not change the deadlines for completing the degree requirements.

*B2. PhD Dissertation Committee*

Upon entering candidacy into the *HBS PhD program*, the student is expected to work with their faculty advisor to assemble a dissertation committee. The dissertation committee will consist of:

1. not less than four and not more than six members, and shall be chaired by the HBS faculty advisor
2. at least two members that represent the major field (i.e., HBS faculty), one of whom shall be the faculty advisor/committee chairperson; and
3. at least one member who will be an external examiner chosen from a different academic program or from outside the University.

The faculty advisor/committee chairperson shall have established a record of publication in the field of the dissertation and shall be a member of the faculty of the University; the definition of faculty shall include professional staff that hold secondary faculty appointments. Faculty who have retired or resigned from the University may chair committees of students whose work began under their direction prior to their retirement or departure from the University. A faculty advisor/committee chairperson who is not employed by the University of Delaware may serve as co-chair of the committee providing that the other co-chair meets the conditions stated above.

C. Timetable and Definition of Satisfactory progress towards the degree.

*C1. Time Limit for Completing the Degree.*

The time limit for completion of the HBS PhD degree requirements begins with the date of matriculation and is specifically detailed in the student’s letter of admission. Students entering the HBS PhD program with a master’s degree are given 10 consecutive semesters to complete the requirements.  Students who change their degree plan and have transferred from one degree program to another degree program are given 10 consecutive semesters from the beginning of the first year in the HBS PhD program. Students in the MS to PhD bypass option are given 14 consecutive semesters to complete the degree requirements.

An extension of time limit may be granted for extenuating circumstances. Requests for time extensions must be made in writing and approved by the HBS PhD Program Director, the student’s Dissertation Committee and the BHAN Department Chair. The HBS PhD Program Director will forward the request to the Office of Graduate studies.

*C2. Submission of Required University Forms.*

When a student has met the requirements for admission to candidacy as previously explained (section IV, A5), the HBS PhD Program Director will submit a Recommendation for Candidacy to the HBS PhD Degree [form](http://grad.udel.edu/forms/) to the Office of Graduate Studies. The student’s classification will change to post-candidacy upon admission to candidacy status. The deadline for admission to candidacy for the fall semester is August 31. The deadline for admission to candidacy for the spring semester is January 31. The deadline for admission to candidacy for the summer is April 30. Responsibility for seeing that admission to candidacy is secured at the proper time rests with the student.

To initiate the process for degree conferral, candidates must submit an “Application for Advanced Degree” to the Office of Graduate Studies. The application deadlines are February 15 for Spring candidates, January 15 for Winter candidates, May 15 for Summer candidates, and September 15 for Fall candidates. The application must be signed by the candidate’s advisor, the HBS PhD Program Director and department chair.  An application fee for PhD degree students is required when the application is submitted. Upon completion of the degree audit, the Office of Graduate Studies notifies students in writing when they have met all degree requirements.

*C3. Grade Requirements for Satisfactory Progress***.**

Failure to satisfactorily progress in the program will be based on the University Graduate Policy as noted below:

The Office of Graduate Studies monitors the academic progress of all graduate students and notifies students in writing of all academic deficiencies. The cumulative GPA after each 9-hour increment determines academic standing.

**Table 4.** The University’s Academic Probation Policy is expressed in the following chart:

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **If student**  **is on:**  Any status | **And earns a**  **GPA of:**  3.0 or above | **The status**  **becomes:**  Clear |
| Clear | 2.99-2.5 | Warning |
| Clear | 2.49-2.0 | Probation |
| Probation | Below 3.0 | Dismissal |
| Warning | Below 3.0 | Probation |
| Any status | Below 2.0 | Dismissal |

*C4. Reasons for Dismissal from the Program.*

The Office of Graduate Studies notifies students when they are dismissed from graduate programs without completing a degree. Dismissals usually take place at the end of a term. Students may be dismissed for the following reasons:

* Upon the expiration of the five-year time limit for those students in a PhD program who were admitted with a master’s degree. Upon the expiration of the seven-year time limit for PhD students who were admitted to the MS to PhD bypass option.
* Upon the failure to meet the grade point average requirements as stated in the policy on Academic Deficiency and Probation.
* Upon written notice to the Office of Graduate Studies of voluntary withdrawal from the program.
* Upon failure to pass the preliminary, or comprehensive/ candidacy examination(s), a dissertation proposal defense, or a dissertation defense.
* Upon the failure to meet the stated minima in specific course requirements as identified by individual programs when a department has a policy that such failure leads to dismissal from the program.
* Upon failure to satisfactorily conduct research required for the degree.
* Upon the determination by the PhD program faculty of the student’s department that the student has failed to meet or has failed to make satisfactory progress towards meeting academic standards required of the student’s program other than the failure to achieve a cumulative grade point average of 3.0 upon the completion of the stated number of required credits for a degree.
* Upon violation of University of Delaware regulations regarding academic honesty. All graduate students are subject to University of Delaware regulations regarding [academic honesty](http://www.udel.edu/stuguide/07-08/code.html#honesty). Violations of these regulations or other forms of gross misconduct may result in immediate dismissal from the Program.

In the case of dismissal, the HBS PhD Program Director is required to send a report to the Office of Graduate Studies that states the faculty vote on the decision causing dismissal and the justification for this action. The Office of Graduate Studies will notify a student in writing when the student is being dismissed for failure to make satisfactory progress in the program. Students who are dismissed from the Doctor in Health Behavior Science and Promotion program may apply for admittance to the Master’s (MS) in Health Promotion program.

*C5. Procedures for Student Appeals.*

Students who receive what they perceive as an unfair evaluation by a faculty member or faculty committee, may file a written grievance to the HBS graduate committee within 10 business days of receiving the grade. Upon being notified of the student grievance, the HBS graduate committee will meet with the student to discuss the grievance within 10 business days.

If the issue remains unresolved after a meeting between the student and the graduate committee, the student may submit a written appeal to the Department Chair within 10 business days of the meeting. The Department Chair will post a written decision on the appeal, and a description of the proposed resolution within 10 business days of appeal receipt.

Students who perceive the Department Chair decision as unfair may follow the Office of Graduate Studies grievance procedures ([http://www1.udel.edu/stuguide/17-18/grievance.html - gradegrieve](http://www1.udel.edu/stuguide/17-18/grievance.html#gradegrieve)).

### Students wishing to review their program file must submit a written request to the HBS PhD Program Director at least 24 hours in advance. Students must review the file in the presence of program staff or faculty and are not permitted to remove a file but may photocopy documents from their folder. All access to student records is in accordance with the Family Educational Rights and Privacy Act.

**V: Assessment Plan**

A variety of internal and external mechanisms will be used to evaluate the curriculum and overall effectiveness of the HBS PhD program.

Internally, the HBS PhD Program Director and the HBS graduate programs committee will review student progress, grades, and pass/fail rate on coursework, preliminary examination results, enrollments, and advising contracts on an annual basis. This information will be used to evaluate the extent to which students are developing critical competencies in HBS and to assess and adjust student flow through the HBS PhD program.

Markers of students’ success will be tracked, including:

1. Publications (chapters, peer-reviewed journal articles, books)
2. Presentations (invited and national conferences)
3. Awards and honors
4. Fellowships and grants to support research
5. Job placements (post-PhD and faculty positions, leadership positions in private and
6. governmental public health organizations)

In addition, we will track how effectively the PhD Program advances students by tracking the

following:

1. Program attrition (dropouts, dismissals)
2. Time to complete the PhD degree

Finally, we will use a variety of mechanisms for tracking students’ perceptions of the program,

including:

1. Teaching evaluations
2. Anonymous student surveys to assess different aspects of the program including: mentoring, funding, and research opportunities
3. Unsolicited student feedback

Externally, the HBS PhD program will be subject to program review every seven years by two external reviewers in the field of health behavior science. In addition, colleagues in the field who are health behavior science and promotion leaders will be surveyed regarding their assessment of the structure and value of the program, and to identify gaps in the program relevant to emerging health behavior science and promotion needs.

**VI: Financial Aid**

Funding for HBS PhD students will primarily come from department graduate assistantships (*Department funded*) and faculty advisor grant support (*Faculty funded*).

Different types of assistantships (Department funded and Faculty funded) will be awarded to full-time students (registered in at least 6 graduate credits each semester) based on admission ranking, needs of the program, experience and expertise of the graduate student. Students appointed to assistantships are provided experiences that can only be gained by performing instructional or research activities that are compensated based on the University’s guidelines of 20 hours per week in an assigned position.

It is anticipated that the Behavioral Health and Nutrition Department will award up to two full-time (tuition and annual stipend) assistantships to admitted HBS PhD students. Depending on the pool of applicants and/or annual Department of Behavioral Health and Nutrition operating budget, these full-time assistantships may be divided out into partial assistantships (tuition only).

For Department-funded assistantships, it is expected that these students will engage in some teaching of lower level classes in the early program years. In the latter program years, the emphasis of the assistantship will be on working with their advisor on research and scholarly activities. Continuation of this award is contingent upon the evaluation of the HBS PhD Program Director, the HBS PhD Program Committee and the Department Chair. The student must remain in good academic standing to be eligible for the continuation of the award.

Faculty funded assistantships will be dedicated to the execution of the grant-funded activities as directed by the faculty advisor. Continuation of this award is primarily contingent upon the evaluation of the faculty advisor (study Principal Investigator) and secondarily with the HBS PhD Program Director and the HBS PhD Program Committee. The student must remain in good academic standing and meet the demands of the grant proposal and research activities directed by the faculty advisor to be eligible for the continuation of the award.

Students can also apply for internal funding.  For example, students can apply for any of the competitive awards offered through the UD Research and Graduate Studies Office. This includes the University Graduate Fellow Award, the University Graduate Scholar Award, and the University Dissertation Award.

Students can also apply for pre-PhD support from funding agencies such as the American Heart Association.  All students will be encouraged to apply for these external awards.  The faculty advisor will mentor the student on the writing of the proposal.

**VII: Program Administration and Organization**

* 1. A. Program Faculty.
  2. As this HBS PhD degree program is launched, it will be supported by current BHAN faculty. The following BHAN faculty specialize in Health Behavior Science and Promotion and have research and teaching expertise that will be central to the implementation and administration of the proposed program. Responsibilities of program faculty include oversight of program policies and curriculum.

**Table 5:** Summary of BHAN Faculty with HBS Research Expertise

| **Faculty Member** | **Research Expertise** |
| --- | --- |
| Gregory Dominick, PhD | Health literacy, program evaluation, use of wearable technology to promote physical activity and other behaviors to improve cardiovascular health |
| Sean Healy, PhD | Adapted physical activity |
| Laura Lessard, PhD, MPH | Policy and environmental change, program evaluation, health insurance literacy and cost |
| Michael Mackenzie, PhD | Physical activity, mind-body practice, health behavior coaching |
| Iva Obrusnikova, PhD | Inclusion, active community living, and cardiometabolic risk factors of individuals with disabilities |
| Elizabeth Orsega-Smith, PhD | Psychosocial determinants of physical activity, aging and health, Community based participatory research with eating and physical activity behaviors |
| Freda Patterson, PhD, MS | Sleep, sedentary behavior, cardiovascular health, multiple health behavior change and population health |
| P. Michael Peterson, EdD | Social marketing and health communication, workplace stress, behavior change strategies |
| Richard Suminiski, PhD, MPH | Community-engaged research, built-environment/physical activity promotion, community-level physical activity infrastructure, physical activity measurement |

Additionally, the Department of Behavioral Health and Nutrition faculty include those with expertise in nutrition; these faculty frequently collaborate with HBS faculty, serve on Dissertation committees and teach graduate elective courses that PhD HBS students may take as an elective course. Faculty from other university departments wishing to affiliate with the program are invited to pursue joint appointments in the Department of Behavioral Health and Nutrition, in accordance with BHAN department policy.

B. HBS PhD Program Director.

The HBS PhD Program Director will be a tenured faculty member affiliated with the program who holds the rank of associate or full professor. The term of service for the HBS PhD Program Director is three years, with a limit of two consecutive terms. The HBS PhD Program Director is the central program representative and point person.

### The responsibilities of the HBS PhD Program Director include:

### Providing leadership and oversight for the program.

### Organizing and leading meetings of affiliated faculty and the HBS PhD Program Committee; reviewing annual doctoral student progress reports

### Communicating as necessary with the University Graduate Office.

### Serving as the first point of contact for issues arising with program students and faculty.

### Approving all changes to programs of study.

### Approving all changes in faculty advisors.

1. Corresponding with prospective students and overseeing program recruitment and admission decisions.
2. Program evaluation and assessment.
   1. C. HBS Graduate Programs Committee.

The HBS Graduate Programs Committee will be responsible for the administrative duties needed to implement the HBS PhD program in the Department of BHAN. The program committee will consist of affiliated faculty members, and shall be chaired by the PhD Program Director. The members of the HBS graduate program committee shall be elected by HBS program faculty for staggered, two-year terms. Responsibilities of the HBS graduate programs committee shall include (but not limited to):

* Admission of students into the program,
* Approval of student programs of study,
* Approval of student selection of a new faculty advisor after admission to the program,
* Writing and grading written Preliminary Examination questions,
* Oversight of student progress in the program, including dismissal of students who fail to make satisfactory progress,
* Approval of dissertation committees, and
* Other tasks required for the continued success of the program.

D. Program Resources.

D.1. *Travel for Professional Meetings or Presentations*.

HBS PhD students who have a first author peer-reviewed abstracts accepted for a podium or poster presentation at a professional conference may apply to the HBS Graduate Programs Committee (who will make a recommendation to the Department Chair) for full or partial support to cover conference registration, travel and accommodation costs. Students may receive up to one travel award per academic year.

D.2. *Research Funding.*

HBS PhD students can apply for up to $2000/year to support research activities. Students will be expected to work closely with their faculty advisor to submit the plan of work and budget. The deadline for the funding will be in the summer months and notification of award will be made prior to the start of the fall semester so that work can begin promptly in the fall semester. Deliverables including published abstracts, manuscripts, and, the generation of pilot data for submission of an external grant, will be expected.

* 1. **Appendix A:** New Course Applications or Course Revisions

**New Course Proposal Form BHAN855**

This form parallels the Faculty Senate Online Course Approval form for New Course Proposals

Details can be found at[**http://www.udel.edu/registrar/coursemanagement/instructions.html**](http://www.udel.edu/registrar/coursemanagement/instructions.html)

Note that FYE and DLE designations and A&S group requirements have additional requirements for review.

In addition to completing this form, submit a syllabus to your departmental curriculum committee for review.

Course ID: new BHAN855

Course Title: \_Qualitative and Mixed Methods Research in Health Sciences

Credit type:

Fixed number of credits 3\_\_\_\_

Variable number of credits min: \_\_3\_\_ max:\_3\_\_\_

Can this be taken more than once per term? yes/no \_no\_\_\_\_

Max. repeatable credits: \_\_3\_\_\_

Grade type: standard or pass/fail \_\_\_standard\_\_

Multicultural Course: yes/no \_no\_\_\_\_

First Year Experience (FYE): yes/no \_\_no\_\_\_

Discovery Learning Experience (DLE): yes/no \_\_no\_\_\_

Arts & Science requirement: yes / no \_\_no\_

Use the A&S Educational Affairs Course Nomination Form to propose this course as an Arts & Science group requirement and/or second writing course.

Replaces (renumbering): \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter Course ID of the course being deactivated.

Instructional format:

Lecture hours \_3\_**\_**\_\_

Lab hours \_\_0**\_**\_\_

Discussion hours \_\_0\_\_

Independent Study: yes/no \_\_\_no\_\_

Cross Listed Courses: \_\_\_none\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course catalogue title (60 characters max.): **\_\_\_\_\_\_** Qualitative and Mixed Methods Research in Health Sciences

Long Description (45 words max.):

Gain knowledge and skills in qualitative and mixed research methods used in health behavior, health promotion, and nutrition sciences. Theoretical and methodological qualitative approaches will be used to think through, design, execute, analyze and report qualitative and mixed methods data.

Prerequisites: \_\_ BHAN609 or similar graduate research methods course

Corequisites: \_\_\_none\_\_\_\_\_\_\_\_\_\_\_\_\_

Restrictions: \_\_\_graduate students\_\_\_\_\_\_\_\_\_\_\_\_\_

**Justifications**:

**Identify and justify any effect on other courses in your department or in another department. Specifically list other departments' chairpersons and/or faculty consulted and summarize results of discussion.**

Graduate-level training in qualitative and mixed methods research specific to health behavior, health promotion, and nutritional science is needed. Currently, there are no courses in the Department of Behavioral Health and Nutrition that focus on qualitative and mixed methods research despite these approaches being commonly used in the field. This course is designed to be taken by doctoral students but also suitable for master’s degree in the department and potentially across the College of Health Sciences. While there are other graduate-level qualitative research courses across the University including EDUC850, NURS816, SOCI676 and UAPP808, these classes have a small student cap size (between 4 and 15 students), are specific to the respective academic fields, and do not consider mixed research methodologies also. BHAN855 will offer discipline specific training on the qualitative and mixed research methods and skills pertinent to the fields of health behavior, health promotion and nutrition sciences. We do not expect that the addition of this course will impact the enrollment in the other qualitative research courses within the University.

This proposal has been developed, reviewed and approved by BHAN faculty and the BHAN curriculum committee; it is supported by the chair of the BHAN department.

**Identify the main emphasis of the course along with major topics covered. Include a list of learning objectives.**

The course objectives are:

1. Describe qualitative and mixed methods research paradigm as it is used in health sciences
2. Describe rationales for using qualitative and mixed research methods, value of these approaches, weaknesses in these approaches, and important ways in which qualitative research differs from quantitative research.
3. Create appropriate data collection tools (e.g. interview or focus group guides) for qualitative health and mixed methods research
4. Analyze small scale qualitative data
5. Evaluate the validity and reliability of qualitative and mixed methods research in the peer-reviewed, published literature

Major Topics covered:

* Theoretical and conceptual frameworks used in qualitative and mixed methods research
  + Grounded theory
  + Ethnography
* Developing qualitative and mixed methods research questions and study proposals
* Recruitment and sampling methods
* Data collection approaches for qualitative and mixed methods research:
  + observation
  + document review
  + focus groups
  + one-on-one interviews
* Validity criteria for qualitative research (credibility, transferability, dependability and confirmability)
* Ethical considerations
* Data analysis methods commonly used in health research:
  + Thematic Analysis
  + Grounded Theory
* Reporting qualitative and mixed methods research data

Suggested textbooks may include: Qualitative Research and Evaluation Methods by Michael Quinn Patton; Qualitative Research Methods by Monique Hennink and Inge Hutter; or Qualitative Data Analysis: A Methods Sourcebook by Matthew Miles and Michael Huberman along with articles from the published literature.

**Outline how this course addresses one or more of the 10 goals of undergraduate education.**

n/a.

**SAMPLE COURSE OUTLINE**

**Learning Objectives:**

By the end of the course, students should be able to:

1. Describe the qualitative research paradigm as it is used in health sciences
2. Describe rationales for using qualitative methods, value of the approach, weaknesses in the approach and important ways in which qualitative research differs from quantitative research.
3. Create appropriate data collection tools (e.g. interview or focus group guides) for qualitative health sciences research
4. Analyze small scale qualitative data
5. Evaluate the validity and reliability of qualitative research in the published literature

**Course Content:**

|  |  |
| --- | --- |
| Week 1 | Orientation to qualitative and mixed research methods |
| Week 2 | Conceptual frameworks used in qualitative research (e.g. grounded theory, ethnography) |
| Week 3 | Developing qualitative research questions |
| Week 4 | Recruitment and sampling methods |
| Week 5 | RQ assignment due |
| Week 6 | Data collection: observation and document review |
| Week 7 | Data collection: focus groups |
| Week 8 | Background section draft due |
| Week 9 | Data collection: one-on-one interviews, part 1 |
| Week 10 | Data collection: one-on-one interviews, part 2 |
| Week 11 | Draft interview guide due |
| Week 12 | Ethics and validity |
| Week 13, 14 | Data analysis, part 1 |
| Week 15 | Dissemination of qualitative research and writing qualitative research proposals |

**New Course Proposal Form BHAN867**

This form parallels the Faculty Senate Online Course Approval form for New Course Proposals

Details can be found at[**http://www.udel.edu/registrar/coursemanagement/instructions.html**](http://www.udel.edu/registrar/coursemanagement/instructions.html)

Note that FYE and DLE designations and A&S group requirements have additional requirements for review.

In addition to completing this form, submit a syllabus to your departmental curriculum committee for review.

Course ID: new BHAN867

Course Title: Multivariable Biostatistics for Population Health

Credit type:

Fixed number of credits 3\_\_\_\_

Variable number of credits min: \_\_3\_\_ max:\_3\_\_\_

Can this be taken more than once per term? yes/no \_no\_\_\_\_

Max. repeatable credits: \_\_3\_\_\_

Grade type: standard or pass/fail \_\_\_standard\_\_

Multicultural Course: yes/no \_no\_\_\_\_

First Year Experience (FYE): yes/no \_\_no\_\_\_

Discovery Learning Experience (DLE): yes/no \_\_no\_\_\_

Arts & Science requirement: yes / no \_\_no\_

Use the A&S Educational Affairs Course Nomination Form to propose this course as an Arts & Science group requirement and/or second writing course.

Replaces (renumbering): \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter Course ID of the course being deactivated.

Instructional format:

Lecture hours \_3\_**\_**\_\_

Lab hours \_\_0**\_**\_\_

Discussion hours \_\_0\_\_

Independent Study: yes/no \_\_\_no\_\_

Cross Listed Courses: \_\_\_none\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course catalogue title (60 characters max.): **\_\_\_\_\_\_** Multivariable Biostatistics for Population Health

Long Description (45 words max.):

This course provides an understanding of the theory and application of the general and generalized linear models to the analysis of population-based data. Emphasis will be placed on generating and interpreting results and health-related applications.

Prerequisites: \_\_ STAT 656 Biostatistics or permission of instructor.

Corequisites: \_\_\_none\_\_\_\_\_\_\_\_\_\_\_\_\_

Restrictions: \_\_\_graduate students\_\_\_\_\_\_\_\_\_\_\_\_\_

**Justifications**:

**Identify and justify any effect on other courses in your department or in another department. Specifically list other departments' chairpersons and/or faculty consulted and summarize results of discussion.**

Higher level graduate-level training in biostatistics for population health is needed. Currently, there are no higher-level biostatistics courses in the Department of Behavioral Health and Nutrition, despite biostatistics being critical to the field of health behavior science, health promotion, and nutritional science. This course is designed to be taken by doctoral students but also suitable for quantitatively strong master’s degree students in the department and potentially across the College. While there are other graduate-level biostatistics courses across the University including EDUC812 Regression and Structural Equation Modeling, PSYC861: Psychological Statistics II, PSYC878: Hierarchical Linear Modeling, and PSYC867: Structural Equation Modeling, these courses do not cover the regression, GEE and repeated measures approaches that are particularly relevant to the health field. Moreover, the application of these approaches to the population health context is not used. We do not expect that the addition of this course will impact the enrollment in other courses within the University and instead fill a curricular void at the College of Health Sciences graduate level.

This proposal has been developed, reviewed and approved by BHAN faculty and the BHAN curriculum committee; it is supported by the chair of the BHAN department.

**Identify the main emphasis of the course along with major topics covered. Include a list of learning objectives.**

**Learning Objectives:**

1. Solidify understanding of commonly used distributions in multivariate biostatistics
2. Develop understanding of the concepts and assumptions underlying a range of multivariate statistical techniques
3. Learn to select the most appropriate multivariate statistical approach to address specific research hypotheses
4. Gain experience applying a wide range of multivariate statistical techniques
5. Begin developing a sophisticated methodological tool kit
6. Write empirical report using multivariate statistics, consistent with format of publishable research paper

**Major Topics covered:**

|  |
| --- |
| * Fundamental Statistical Concepts |
| * Exploratory and Descriptive Methods |
| * Nonparametric Tests |
| * Simple Linear Regression |
| * Confounding and Effect Modification |
| * Multiple Regression |
| * Predictor Selection and Model Building |
| * Logistic Regression |
| * Survival Analysis |
| * Repeated Measures |
| * Generalized Linear Model |
| * Missing Data and Complex Surveys |

**Suggested textbooks may include:**

Acock, A. C. (2014). *A gentle introduction to Stata* (4th Ed.). College Station, Tx: Stata.

Vittinghoff, E., Glidden, D. V., Shiboski, S. C., & McCullough, C. E. (2012).*Regression methods in biostatistics: Linear, logistic, survival, and repeated measures models* (2nd ed.) New York: Springer.

**Outline how this course addresses one or more of the 10 goals of undergraduate education.**

n/a.

**BHAN8XX: Social and Environmental Determinants of Health**

**Learning Objectives:**

1. Solidify understanding of commonly used distributions in multivariate biostatistics
2. Develop understanding of the concepts and assumptions underlying a range of multivariate statistical techniques
3. Learn to select the most appropriate multivariate statistical approach to address specific research hypotheses
4. Gain experience applying a wide range of multivariate statistical techniques
5. Begin developing a sophisticated methodological tool kit
6. Write empirical report using multivariate statistics, consistent with format of publishable research paper

**Course Content:**

|  |  |
| --- | --- |
| Week 1 | Introduction and Fundamental Statistical Concepts |
| Week 2 | Exploratory and Descriptive Methods |
| Week 3 | Nonparametric Tests |
| Week 4 | Simple Linear Regression |
| Week 5 | Confounding and Effect Modification |
| Week 6 | Multiple Regression |
| Week 7 | Spring Recess (or fall break) |
| Week 8 | Predictor Selection and Model Building |
| Week 9 | Logistic Regression |
| Week 10 | Survival Analysis |
| Week 11 | Repeated Measures |
| Week 12 | Generalized Linear Model |
| Week 13 | Missing Data and Complex Surveys |
| Week 14 | Exam Review, Project Time, Course Synthesis |
| Week 15 | Exam |

**New Course Proposal Form BHAN820**

This form parallels the Faculty Senate Online Course Approval form for New Course Proposals

Details can be found at[**http://www.udel.edu/registrar/coursemanagement/instructions.html**](http://www.udel.edu/registrar/coursemanagement/instructions.html)

Note that FYE and DLE designations and A&S group requirements have additional requirements for review.

In addition to completing this form, submit a syllabus to your departmental curriculum committee for review.

Course ID: new BHAN820

Course Title: Social and Environmental Determinants of Health Behavior

Credit type:

Fixed number of credits 3\_\_\_\_

Variable number of credits min: \_\_3\_\_ max:\_3\_\_\_

Can this be taken more than once per term? yes/no \_no\_\_\_\_

Max. repeatable credits: \_\_3\_\_\_

Grade type: standard or pass/fail \_\_\_standard\_\_

Multicultural Course: yes/no \_no\_\_\_\_

First Year Experience (FYE): yes/no \_\_no\_\_\_

Discovery Learning Experience (DLE): yes/no \_\_no\_\_\_

Arts & Science requirement: yes / no \_\_no\_

Use the A&S Educational Affairs Course Nomination Form to propose this course as an Arts & Science group requirement and/or second writing course.

Replaces (renumbering): \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter Course ID of the course being deactivated.

Instructional format:

Lecture hours \_3\_**\_**\_\_

Lab hours \_\_0**\_**\_\_

Discussion hours \_\_0\_\_

Independent Study: yes/no \_\_\_no\_\_

Cross Listed Courses: \_\_\_none\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Course catalogue title (60 characters max.): **\_\_\_\_\_\_** Social and Environmental Determinants of Health Behavior

Long Description (45 words max.):

This interdisciplinary course studies the social, economic and environmental conditions under which people live that determine their health. Students will explore how influences such as income, living conditions, education, infrastructure, built environment, religious affiliation, healthcare, social capital, stress, gender, and race affect health and longevity.

Prerequisites: \_\_ none

Corequisites: \_\_\_none\_\_\_\_\_\_\_\_\_\_\_\_\_

Restrictions: \_\_\_graduate students\_\_\_\_\_\_\_\_\_\_\_\_\_

**Justifications**:

**Identify and justify any effect on other courses in your department or in another department. Specifically list other departments' chairpersons and/or faculty consulted and summarize results of discussion.**

Graduate-level training in social and environmental determinants of health specific to health behavior, health promotion, and nutritional science is needed. Currently, there are no courses in the Department of Behavioral Health and Nutrition, or in the College of Health Sciences, that focus on social and environmental determinants of health, despite this contextual knowledge being critical to the study and practice of health professionals. This course is designed to be taken by doctoral students but also suitable for master’s degree students in the department and potentially across the College. While there are other graduate-level courses across the University including NURS881, that include curricular elements dedicated to social and environmental determinants of health, the content is secondary to the class focus. For example, NURS881 focuses on population health. There are also research and community based entities across the University whose mission is to address social determinants of health (e.g., Center for Community Research and Service), this is not part of direct academic programming. We do not expect that the addition of this course will impact the enrollment in other courses within the University and instead fill a curricular void at the graduate level.

This proposal has been developed, reviewed and approved by BHAN faculty and the BHAN curriculum committee; it is supported by the chair of the BHAN department.

**Identify the main emphasis of the course along with major topics covered. Include a list of learning objectives.**

**By the end of this course, students will be able to:**

1. Articulate a social determinants perspective on public health;
2. Comprehend and critique important social determinants of health;
3. Identify contemporary features of the built environment such as patterns of development, parks, public works projects, houses, and transportation systems that reflect past efforts to influence health,
4. Identify theories used to understand social and environmental determinants of health from multidisciplinary perspectives;
5. Assess how these theories, models, and methodologies could be used to design structural interventions; and
6. Describe and critically evaluate structural interventions that are being used to address social and environmental determinants of health.

**Major Topics covered:**

|  |
| --- |
| * The Epidemiologic Transition |
| * Social Class and Health |
| * Neighborhoods and Living Conditions |
| * Infrastructure and Transportation |
| * Healthcare Access |
| * Race and Gender |
| * Social capital, networks, and support |
| * Early Life and Life Course |
| * Mental health and stress |
| * Food deserts, insecurity, Mapping |
| * Measuring built environment |
| * Religion and Spirituality |
| * Reducing health inequity through social and environmental determinants |

**Suggested textbooks may include:**

* Dannenberg A, Frumkin H and Jackson R. 2011. *Making Healthy Places.* Washington, DC: Island Press.
* Marmot, M. & Wilkinson, R.G. .2006. *Social Determinants of Health.* 2nd Edition. Oxford Press.
* World Health Organization. 2013.The Economics of Social Determinants of Health and Health Inequalities.

**Outline how this course addresses one or more of the 10 goals of undergraduate education.**

n/a.

**SAMPLE COURSE OUTLINE**

**Learning Objectives:**

By the end of the course, students should be able to:

1. Articulate a social determinants perspective on public health;
2. Comprehend and critique important social determinants of health;
3. Identify contemporary features of the built environment such as patterns of development, parks, public works projects, houses, and transportation systems that reflect past efforts to influence health,
4. Identify theories used to understand social and environmental determinants of health from multidisciplinary perspectives;
5. Assess how these theories, models, and methodologies could be used to design structural interventions; and
6. Describe and critically evaluate structural interventions that are being used to address social and environmental determinants of health.

**Course Content:**

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| --- | --- |
| Week 1 | Overview of course content and expectations  What are social and environmental determinants of health? |
| Week 2 | The Epidemiologic Transition |
| Week 3 | Social Class and Health |
| Week 4 | Neighborhoods and Living Conditions |
| Week 5 | Infrastructure and Transportation |
| Week 6 | Healthcare Access |
| Week 7 | Race and Gender |
| Week 8 | Social capital, networks, and support |
| Week 9 | Early Life and Life Course |
| Week 10 | Mental health and stress |
| Week 11 | Food deserts, insecurity, Mapping |
| Week 12 | Measuring built environment |
| Week 13 | Religion and Spirituality |
| Week 14 | Reducing health inequity through social and environmental determinants |
| Week 15 | Presentations |

* 1. **Appendix B:** List of Sample Elective Courses (not an exhaustive list; electives are approved by the student’s advisor)



HLPR813 Health of Older Adults

HLPR815 Health Behavior and Health Psychology

HLPR819 Social Marketing

UAPP804 Program Evaluation for Health and Social Services

UAPP808 Qualitative Methods for Program Evaluation

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| --- | --- |
| PHYT809 | Psychosocial Aspects of Health and Disease |

SOCI607 Sociology of Gender

COMM656 Communication in Organizations

COMM657 Children, Television, and Education

KAAP802 Human Cardiovascular Control

PSYC806 Social Cognition

PSYC614 Psychopharmacology

UAPP608 Poverty, Neighborhoods, & Community Development

UAPP676 Survey Research

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| --- | --- |
| UAPP640 | International Development Policy and Administration |
| UAPP653 | Politics and Healthcare |
| PHYT809 | Psychosocial Aspects of Health and Disease |

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| --- | --- |
| UAPP655 | Geographic Information Systems in the Public and Nonprofit Sectors |
| UAPP800 | Research Methods and Data Analysis |
| UAPP808 | Qualitative Methods for Program Evaluation |
| MEDT800 | Preparing Research Proposals |
| PSYC809 | Research Design |
| APEC806 | Research Techniques and Procedures |
| NURS812 | Responsible Conduct of Research |
| NURS814 | Advanced Quantitative Research in Nursing Science |
| NURS816 | Advanced Qualitative Research in Nursing Science |
| KAAP868 | Research |
| KAAP602 | Data Analysis and Interpretation in Health Sciences |
| BISC643 | Biological Data Analysis |
| KAAP801 | Graduate Seminar in Applied Physiology |
| HDFS 815 | Research Issues and Designs |
| EDUC 850 | Qualitative Research in Educational Settings |
| HDFS 615 | Research Methods |
| COMM603 | Communication Research Methods-Procedures |
| COMM604 | Communication Research Methods- Analysis |
| SOCI605 | Data Collection and Analysis |
| SOCI614 | Advanced Data Analysis |
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Appendix C: List of Sample Statistical Electives

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| PSYC809 | Research Design |
| UAPP808 | Qualitative Methods for Program Evaluation |
| BISC643 | Biological Data Analysis |
| EDUC812 | Regression and Structural Equation Modeling |
| EDUC856 | Introduction to Statistical Inference |
| ELEG815 | Analytics I: Statistical Learning |
| KAAP602 | Data Analysis and Interpretation in Health Science |
| PSYC860 | Psychological Statistics |
| PSYC878 | Hierarchical Linear Modeling |
| SOCI614 | Advanced Data Analysis |
| STAT608 | Statistical Research Methods |
| STAT656 | Biostatistics |
| STAT818 | Multivariate Analysis |
| STAT831 | Time Series Analysis |
| SOCI625 | Advanced Social Statistics |
| PSYC878 | Hierarchical Linear Modeling |