

GENETIC COUNSELING, SCM

General Degree Information (<https://publichealth.jhu.edu/academics/scm-in-genetic-counseling/>)

The JHU/NIH Genetic Counseling Training Program is a joint effort between the Department of Health, Behavior, and Society and the National Institutes of Health through the National Human Genome Research Institute (NHGRI) and the National Cancer Institute (NCI). This collaboration draws on resources from the two research institutions to address needs in the genetic counseling profession. This program was initiated in 1996. Its goals are to shape genetic counseling services through student and faculty research and develop outstanding genetic counselors who are innovators and leaders in:

- psychotherapeutic genetic counseling
- genetic counseling research and scholarship
- applications of genomics and precision health
- transdisciplinary learning and practice, incorporating perspectives from public health, policy, ethics, and advocacy

Prospective students who would like additional information after perusing this site can visit the program's BSPH site (<https://publichealth.jhu.edu/academics/scm-in-genetic-counseling/>) and the NIH site (<https://www.genome.gov/careers-training/Professional-Development-Programs/Genetic-Counseling-Training/>).

Program Requirements

Course location and modality is found on the BSPH website (<https://www.jhsph.edu/courses/>).

Course Requirements

The program requires two and one-half years of full-time study. The curriculum consists of at least 137 credit hours of didactic coursework and rotations in the areas of human genetics, genetic counseling, public policy, research methodology, ethics, and health education. One credit of Supervised Clinical Rotation must be completed during the summer between the first and second years of study. The coursework is taken on the NIH campus in Bethesda, Maryland, and at Johns Hopkins Bloomberg School of Public Health in Baltimore. Clinical rotations extend in location from northern Baltimore to Washington, D.C. and northern Virginia, and include both in-person and telegenetics experiences.

Per School regulations, at least 12 credits of formal coursework must be completed outside the Department of Health, Behavior, and Society, of which at least eight (8) must be earned in another department of the School of Public Health.

Important General Notes

All students are required to enroll for a minimum of 12 credits per term in order to be considered full-time. If a student opts out of a course that is considered an elective in this curriculum, other electives must be selected with the student's adviser to maintain the 12 credit minimum.

There are three course requirements for which we are able to offer some choices. All options are reflected in the curriculum further below, but students are only required to choose one course from each set of requirements as outlined below:

Qualitative research methods requirement

Students *must* take one of the following:

For those NOT planning to pursue a qualitative thesis:

1. PH.550.604 Qualitative Reasoning in Public Health - 2 credits, 1st or 2nd term (online) (highly recommended)

OR

2. PH.552.603 The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health-0.5 credits, 1st, 2nd, or 3rd term (online) (less recommended, discuss with your advisor)

For those considering a qualitative thesis:

1. PH.550.604 Qualitative Reasoning in Public Health-2 credits in 1st or 2nd term (online)

OR

2. PH.410.710 Concepts in Qualitative Research for Social and Behavioral Sciences- 3 credits, 2nd term (on-site)

Taking one of these courses also allows students to take the following additional elective:

PH.410.712 Theory and Practice in Qualitative Data Analysis and Interpretation for The Social and Behavioral Sciences - 3 credits, 3rd term (on-site)

Social Determinants of Health Requirement

Students *must* take one of the following:

1. PH.410.651 Health Literacy: Challenges and Strategies for Effective Communication - 3 credits, 2nd term (online)

OR

2. PH.552.610 The Social Determinants of Health -0.5 credits, 1st, 2nd, or 3rd term (online)

Responsible conduct of research requirement

Students *must* take one of the following:

1. 306.665 Research Ethics and Integrity: U.S. and International Issues -3 credits (on-site)

OR

2. 550.600 Living Science Ethics Responsible Conduct of Research -1 credit, 1st term online or 4th term online or on-site

Satisfactory Academic Progress

All ScM students in the Department of Health, Behavior and Society are expected to maintain satisfactory academic standards for the duration of the degree program. In the department, satisfactory academic progress is defined as follows:

A minimum grade point average (GPA) of 2.75. Any ScM student who does not obtain the minimum 2.75 GPA will not be eligible to present his/her written research proposal. If this minimum grade point average is not maintained, the program directors will meet to determine the appropriate course of action.

ScM students are required to pass all of their clinical rotations and are required to pass a minimum of four semesters of clinical supervision.

In the event a student fails to pass a rotation, criteria for repeating and successfully passing the rotation will be determined and communicated by the program director.

Clinical Rotations

In addition to didactic coursework, the program requires a minimum of six hundred contact hours of supervised clinical rotations in a variety of settings. Clinical rotations begin with a standardized patient rotation in the second quarter of the program, transition to an on-site rotation in the third quarter, and are required throughout the remainder of study.

During the first and second years, rotations are scheduled for one full or two half-days each week. During the third year, they are scheduled for a minimum of two full days each week for one term or one full day each week for two terms. These rotations provide a critical opportunity for students to learn directly about genetic conditions and their impact on individuals and their families, as well as about roles of the professional counselor. Most of the preceptors for clinical rotations are board-certified genetic counselors. Those who are not (bioethicists, medical social workers, health educators, physicians) enhance the clinical training by exposing students to a variety of disciplines. This type of broad experience is endorsed by the Accreditation Council for Genetic Counseling which accredits the program.

Thesis

Students are expected to conduct original research worthy of publication as part of their Master's thesis. To this end, students are required to take courses that will provide them with the training and experience to develop, carry out, and publish their research. Students are expected to develop an acceptable thesis proposal by the middle of the second year of study and to conduct their study during the second and third years of the program. Students are expected to prepare a publishable manuscript of their study results and present the findings at a research seminar in January of their third year on the NIH campus in Bethesda.

By December of the student's second year, the student must submit a written thesis research proposal. The written proposal is to be submitted two weeks prior to a scheduled meeting of the Executive Committee faculty. The proposal includes the following sections: an abstract, specific aims, hypotheses (if applicable), background, research plan, plan for analysis, significance of the proposed work, and a timeline. Written feedback is returned to the student for response during an oral presentation with the Executive Committee. The student receives a written evaluation with the stipulations and recommendations detailed.

Comprehensive Examinations

Prior to conducting the thesis project, the student completes a comprehensive written exam that consists of questions intended to further the student's thinking on topics related to the conduct of genetic counseling research.

Institutional Review Board

An application for SRC (Scientific Review Committee) and NHGRI IRB (Institutional Review Board) review at the NIH or the Johns Hopkins IRB must be submitted after successful completion of the comprehensive exam and prior to beginning thesis research.

Students should discuss any questions about the use of human subjects in their research activities with their adviser.

Program Accreditation

The Accreditation Council for Genetic Counseling re-accredited the program in 2016 for eight years. Graduates of the program are eligible to sit for the genetic counseling board examinations after completion of the degree program and a clinical logbook demonstrating significant involvement in the evaluation and counseling of at least 50 patients seen in approved rotation sites.

2023-24 Curriculum for ScM Program in Genetic Counseling

(All Courses are required unless indicated otherwise. Total credits listed per term include all electives. Actual totals vary.)

Course	Title	Credits
First Year		
First Term		
Introduction to Online Learning (non-credit)		
PH.550.860	Academic & Research Ethics at BSPH (Students must take this non-credit course upon matriculation) ⁴	
PH.140.621	Statistical Methods in Public Health I	4
PH.340.721	Epidemiologic Inference in Public Health I	5
ED.861.502	Counseling Theory and Practice (elective) ¹	2.5
PH.415.610	Practical Genetic Counseling	2
PH.415.620	Introduction to Genetic Counseling I	2
PH.415.611	Introduction to Human Genetics I	2
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
Credits		20.5
Second Term		
PH.140.622	Statistical Methods in Public Health II	4
PH.410.615	Research Design in the Social and Behavioral Sciences	3
ED.861.502	Counseling Theory and Practice (elective) ¹	2.5
PH.415.621	Introduction to Genetic Counseling II	2
PH.415.612	Introduction to Human Genetics II	2
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.601	Genetic Counseling Prenatal Standardized Patient Clinical Rotation (Genetic Counseling Prenatal Standardized Patient Clinical Rotation)	1
PH.410.651	Health Literacy: Challenges and Strategies for Effective Communication (elective) ⁶	3
Credits		20.5
Third Term		
PH.140.623	Statistical Methods in Public Health III (elective)	4
PH.415.602	Clinical Genetics for Genetic Counselors I	2
PH.415.630	Therapeutic Genetic Counseling I	2
PH.415.640	Health Judgment and Decision Making	2
PH.410.603	Introduction to Genetic Counseling Research	1

PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.851	Supervised Clinical Rotations: Genetic Counseling	4

Credits **18**

Fourth Term

PH.415.650	Facilitating Family Adaptation to Loss and Disability I	2
PH.415.675	Cancer Genetics: Managing the Risks Through Testing and Counseling	2
PH.415.603	Clinical Genetics for Genetic Counselors II	2
PH.415.880	Genetic Counseling Program Thesis Proposal Development I	2
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.851	Supervised Clinical Rotations: Genetic Counseling	4
PH.415.619	New Genetic Technologies and Public Policy ³	3

Total credits for 4th term: 18

Summer

PH.415.851	Supervised Clinical Rotations: Genetic Counseling	1
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Credits **19**

Second Year

First Term

PH.415.651	Facilitating Family Adaptation to Loss and Disability II	2
PH.415.881	Genetic Counseling Program Thesis Proposal Development II	2
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.851	Supervised Clinical Rotations: Genetic Counseling	4
PH.550.600	Living Science Ethics - Responsible Conduct of Research (also offered 4th term; take this or Research Ethics and Integrity)	1
PH.552.601	Foundational Principles of Public Health (also offered 2nd and 3rd term) ⁷	0.5
PH.552.607	Essentials of Environmental Health (also offered 2nd and 3rd term) ⁷	0.5
PH.552.612	Essentials of One Health (also offered 4th term) ⁷	0.5
PH.552.603	The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health (take at least one qualitative course; also offered 2nd and 3rd term) ⁷	0.5
PH.550.604	Qualitative Reasoning in Public Health (take at least one qualitative course; also offered in 2nd term)	2

Precision Health (course under review; register for SS/R in GC) ⁵	1
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Credits **17**

Second Term

PH.410.710	Concepts in Qualitative Research for Social and Behavioral Sciences (take at least one qualitative course)	3
PH.550.604	Qualitative Reasoning in Public Health (take at least one qualitative course; also offered 1st term)	2
PH.415.631	Therapeutic Genetic Counseling II	2
PH.415.882	Genetic Counseling Program Thesis Proposal Development III	2
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.851	Supervised Clinical Rotations: Genetic Counseling (2 credits required plus 2 credits elective non-clinical rotation)	2
PH.552.610	The Social Determinants of Health (take this or Health Literacy; also offered 1st and 3rd term) ⁷	0.5
PH.552.611	Globalization and Population Health (also offered 1st and 3rd term) ⁷	0.5

Credits **15**

Third Term

PH.306.665	Research Ethics and integrity (take this or Living Science Ethics Responsible Conduct of Research)	3
PH.415.866	Current Topics in Molecular Genetics I (elective) ²	1
PH.415.840	SS/R: Genetic Counseling	2
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.410.624	Genetic Counseling Cancer Standardized Patient Clinical Rotation	4
PH.410.712	Theory and Practice in Qualitative Data Analysis and Interpretation for The Social and Behavioral Sciences (elective)	3
PH.415.613	Introduction to Medical Genetics I (elective) ²	2

Credits **18**

Fourth Term

PH.415.867	Current Topics in Molecular Genetics II (elective) ²	1
PH.415.676	Advanced Topics in Cancer Genomics for Genetic Counselors (can be taken first or second year)	0.5
PH.550.600	Living Science Ethics - Responsible Conduct of Research (also offered 1st term; take this or Research Ethics and Integrity)	1
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1

PH.415.851	Supervised Clinical Rotations: Genetic Counseling	4
PH.415.840	SS/R: Genetic Counseling	2
PH.415.619	New Genetic Technologies and Public Policy ³	3
PH.415.614	Introduction to Medical Genetics II (elective) ²	2
Credits		16.5
Third Year		
First Term		
PH.415.701	Genetic Counseling Lab I	2
PH.415.820	Thesis Research: Genetic Counseling	4
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.851	Supervised Clinical Rotations: Genetic Counseling (can take 4 credits across 2 terms or 8 credits in one term)	4
Precision Health (course under review; register for SS/R in GC) ⁵		1
Credits		14
Second Term		
PH.415.702	Genetic Counseling Lab II	2
PH.415.820	Thesis Research: Genetic Counseling	4
PH.415.861	Genetic Counseling Seminar: Topics in the Field ²	2
PH.415.870	Genetic Counseling Clinical Supervision	1
PH.415.851	Supervised Clinical Rotations: Genetic Counseling (can take 4 credits across 2 terms or 8 credits in one term)	4
Credits		13
Total Credits		171.5

¹ Fall semester course offered through the Johns Hopkins School of Education

² NIH FAES courses also listed at Johns Hopkins

³ Two courses alternate every other year: For the 2023-24 AY, PH 415.619 NEW GENETIC TECHNOLOGIES AND PUBLIC POLICY will be taught. It alternates with PH 415.624 ETHICAL, LEGAL AND SOCIAL IMPLICATIONS IN GENETICS AND GENOMICS OVER TIME.

⁴ This non-credit, online mini-course **must** be completed before you can take online courses. You must enroll yourself. The course includes one mandatory LiveTalk session. See <https://courseplus.jhsph.edu/core/index.cfm/go/course.home/cid/90/> to enroll.

⁵ Precision Health (under development) alternates every other year with 415.710/711 Medical Genomics and Genomic Medicine I/II.

⁶ For students taking the Counseling Theory course, it will be difficult to take Health Literacy during this term in the first year. Students may alternatively choose to take in the second year.

⁷ Enroll in 1-4 of the required half-credit PH classes listed in Year 2, which are offered in terms 1, 2, 3, and (in some cases) 4.

Timetable for Completion of Degree Requirements

Please direct questions regarding the timetable for completion of degree requirements to the Office of Records and Registration (JHSPH.Registra@jhu.edu (jhsph.registra@jhu.edu)).

Key Dates	Task/Event
First Year	
Terms 1 and 2	
Before 3rd term registration	Academic Adviser Meeting
	Course Selections
	Satisfactory academic progress
Terms 3 and 4	
Before the end of the term	Academic Adviser Meeting
	Course Selections
	Satisfactory academic progress
	Discuss potential thesis (Deadline: mid-July, specific aims and progress report due to Executive Committee)
	Discuss thesis advisor choice (choose a second advisor to serve as thesis advisor or use academic advisor in both capacities)
	Discuss summer internship/rotation plans
Summer between first and second year	Written comprehensive examination year
Second Year	
Term 1	
Before 2nd term registration	Academic Adviser Meeting
	Course Selections
	Satisfactory academic progress
	Discuss thesis proposal process
At least twice during the term	Thesis Adviser Meetings
	Decide on other thesis committee members
Term 2	
At least twice during the term	Thesis Adviser Meetings
	Discuss proposal draft progress (Deadline: mid-November (or earlier) Proposal due to the Executive Committee 2-3 weeks before the meeting)
	Thesis Advisor meeting/phone call to discuss strategy for Executive Committee Meeting (Deadline: The day before the Executive Committee meeting)
	Thesis Advisor attends the meeting Executive Committee (Deadline: late November to early-Dec)
	Thesis Advisor meeting/phone call to plan for the response to the Executive Committee (Deadline: After the Executive Committee meeting)
Term 3	
At least once during the term	Thesis Adviser Meetings
	Discuss proposal revisions (Deadline: by January 30 submit to IRB)

Monitor progress toward thesis timeline

Term 4

Before the end of the term

Academic Adviser Meeting

Course Selections

Satisfactory academic progress

Discuss summer internship/rotation/research plans

At least once during the term

Thesis Adviser Meetings

Monitor progress toward thesis timeline (**April 15** deadline to submit revised proposal if needed)

Third Year

Term 1

Before 2nd term registration

Academic Adviser Meeting

Course Selections

Satisfactory academic progress

Discuss potential career directions

At least once during the term

Thesis Adviser Meetings

Monitor progress toward thesis timeline (Data collection should be completed by the end of the summer at the latest for December conferral)

Discuss data analysis issues

Review thesis draft

Discuss potential thesis readers

Review student's poster for NHGRI research retreat

Term 2

At least twice during the term

Thesis Adviser Meetings

Final thesis reader choice (Deadline for December conferral: **October 27** readers' names submitted)

Review written thesis document (**mid-November** deadline to give final thesis to readers for December conferral)

December 15 deadline for readers' letters to registrar, if December conferral (February 2 for spring conferral)

Assist in preparation for final thesis seminar

public health and genetic counseling challenges in the Baltimore/Washington region, the United States, and around the globe.

2. Appreciate the interface between genetic counseling and public health, policy, social, ethical, and legal issues.
3. Provide genetic counseling and risk assessment to clients for a variety of different indications.
4. Conduct genetic counseling practice and research based on a critical examination of the genetic/genomic, medical, and social science literature.
5. Develop self-awareness, counseling skills, and critical assessment of personal strengths/weaknesses that enhance/interfere with providing effective psychotherapeutic genetic counseling.

According to the requirements of the Council on Education for Public Health (CEPH), all BSPH degree students must be grounded in foundational public health knowledge. Please view the list of specific CEPH requirements by degree type (<https://e-catalogue.jhu.edu/public-health/ceph-requirements/>).

For a full list of program policies, please visit the ScM in Genetic Counseling page (<https://publichealth.jhu.edu/academics/scm-in-genetic-counseling/>) where students can find our handbook.

Degree Program Competencies

All ScM in Genetic Counseling students must attain proficiency in these competencies, in addition to the competencies required by the Accreditation Council for Genetic Counseling:

1. Articulate the influences of social context and behavior on health when developing, evaluating, and implementing solutions to pressing