Master of Science in Genetic Counseling

Program Director: Barbara Biesecker, PhD, MS, CGC
Academic Director: Debra Roter, DrPH
Program Coordinator: Mary Ann Dunevant, 756 Hampton House, 410-955-2315, mduneval@jhu.edu

General Degree Information

The Genetic Counseling Graduate Program is a joint effort between the Department of Health, Behavior and Society and the National Human Genome Research Institute (NHGRI) at the National Institutes of Health (NIH). This collaboration draws on resources from the two research institutions to address needs in the genetic counseling profession. This program was initiated in 1996 and its goals are to prepare graduates to: provide genetic counseling, with an emphasis on clients’ psychological and educational needs;

- Provide genetic counseling, with an emphasis on clients’ psychological and educational needs;
- conduct social and behavioral research related to genetic counseling; and
- educate health care providers, policy makers and the public about genetics and related health and social issues.

Course Requirements

The program requires two and one-half years of full-time study. The curriculum consists of at least 80 credit hours of didactic course work in the areas of human genetics, genetic counseling, public policy, research methodology, ethics, and health education. Two credits 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 Medical Campus in Baltimore. Clinical rotations extend in location from northern Baltimore to Washington DC.

Per School regulations, at least 12 credits of formal course work 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.

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 their 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 course work, the program requires a minimum of four hundred contact hours of supervised clinical rotations in a variety of settings. Clinical rotations begin in the second quarter of the program and are required throughout. They are scheduled during two half-days each week. 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 (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 that 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.

**Written Examinations**

By December of the student’s second year, the student must submit a written thesis research proposal, which forms the basis of the written examination. The written proposal is to be submitted two weeks prior to a scheduled meeting of the Executive and Thesis 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 examination with the Executive Committee. The student receives a final written evaluation with the stipulations and recommendations detailed. The student’s response to this evaluation serves as the written component of the comprehensive exam. The Executive Committee faculty members will award a pass/fail grade based on both the written and oral presentations. This grade is recorded as the comprehensive exam.

**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 advisor.

**Program Accreditation**

The Accreditation Council for Genetic Counseling re-accredited the program in 2008 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 log book demonstrating significant involvement in the evaluation and counseling of at least 50 patients seen in approved rotation sites.
## 2015-16 CURRICULUM FOR ScM. PROGRAM IN GENETIC COUNSELING
(ALL COURSES ARE REQUIRED UNLESS INDICATED OTHERWISE.)

<table>
<thead>
<tr>
<th>COURSE LISTING</th>
<th>INSTRUCTOR</th>
<th>COURSE #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR 1 - 1st quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidemiologic Inferences I</td>
<td>Celantano</td>
<td>340.721.60</td>
</tr>
<tr>
<td>Statistical Methods in Public Health I</td>
<td>Bandeen-Roche</td>
<td>140.621.02</td>
</tr>
<tr>
<td>*Counseling Theory &amp; Practice</td>
<td>Dept of Ed faculty</td>
<td>861.502.03</td>
</tr>
<tr>
<td>(elective for Psych majors/minors; required for others)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical Genetic Counseling</td>
<td>Sapp</td>
<td>415.610.92</td>
</tr>
<tr>
<td>Introduction to GC I</td>
<td>Erby</td>
<td>415.620.92</td>
</tr>
<tr>
<td>Genetic Counseling Supervision</td>
<td>Biesecker/Erby</td>
<td>415.870.92</td>
</tr>
<tr>
<td>*Genetic Counseling Seminar</td>
<td>Biesecker/Erby</td>
<td>415.861.92</td>
</tr>
<tr>
<td>Introduction to Human Genetics I</td>
<td>Les Biesecker</td>
<td>415.611.92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>YEAR 1 - 2nd quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistical Methods in Public Health II</td>
<td>Bandeen-Roche</td>
<td>140.622.02</td>
</tr>
<tr>
<td>*Counseling Theory &amp; Practice</td>
<td>Dept of Ed faculty</td>
<td>861.502.03</td>
</tr>
<tr>
<td>Intro to Human Genetics II</td>
<td>L. Biesecker</td>
<td>415.612.92</td>
</tr>
<tr>
<td>Introduction to GC II</td>
<td>Erby</td>
<td>415.621.92</td>
</tr>
<tr>
<td>*Genetic Counseling Seminar</td>
<td>Biesecker/Erby</td>
<td>415.861.92</td>
</tr>
<tr>
<td>Supervised Clinical Rotation</td>
<td>Erby</td>
<td>415.851.92</td>
</tr>
<tr>
<td>Genetic Counseling Supervision</td>
<td>Biesecker/Erby</td>
<td>415.870.92</td>
</tr>
<tr>
<td>Research Design in SB Sciences</td>
<td>Maulsby</td>
<td>410.615.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>YEAR 1 – 3rd quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistical Methods in Public Health III (elective)</td>
<td>Bandeen-Roche</td>
<td>140.623.02</td>
</tr>
<tr>
<td>Introduction to Medical Genetics I</td>
<td>Hart</td>
<td>415.613.92</td>
</tr>
<tr>
<td>Therapeutic Genetic Counseling</td>
<td>Biesecker</td>
<td>415.630.92</td>
</tr>
<tr>
<td>*Genetic Counseling Seminar:</td>
<td>Biesecker/Erby</td>
<td>415.861.92</td>
</tr>
<tr>
<td>Supervised Clinical Rotation</td>
<td>Erby</td>
<td>415.851.92</td>
</tr>
<tr>
<td>Genetic Counseling Supervision</td>
<td>Biesecker/Erby</td>
<td>415.870.92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>YEAR 1 – 4th quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+New Genetic Tech and Public Policy</td>
<td>Dept. Faculty</td>
<td>415.619.92</td>
</tr>
<tr>
<td>*Intro to Medical Genetics II</td>
<td>Hart</td>
<td>415.614.92</td>
</tr>
<tr>
<td>Fac. Family Adaptation to Loss and Disability</td>
<td>Similuk</td>
<td>415.650.92</td>
</tr>
<tr>
<td>*Genetic Counseling Seminar:</td>
<td>Biesecker/Erby</td>
<td>415.861.92</td>
</tr>
<tr>
<td>Supervised Clinical Rotation</td>
<td>Erby</td>
<td>415.851.92</td>
</tr>
<tr>
<td>Genetic Counseling Supervision</td>
<td>Biesecker/Erby</td>
<td>415.870.92</td>
</tr>
<tr>
<td>Genetic Counseling Thesis Proposal Dev</td>
<td>Erby</td>
<td>415.880.01</td>
</tr>
<tr>
<td>Cancer Genetics</td>
<td>Nusbaum</td>
<td>415.675.92</td>
</tr>
</tbody>
</table>
Special Studies and Res. in GC (PH Genomics) Dept Faculty 415.840.92 2

*Course offered through the Johns Hopkins School of Education
*FAES courses
+ This course is taught every other year. This course will be taught in the spring of 2016.

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 advisor to maintain the 12 credit minimum.
YEAR 1 - Summer

Supervised Clinical Rotation    Erby   415.851.92  2

YEAR 2 – 1st quarter

Genetic Counseling Thesis Proposal DevelopmentErby 415.881.01  2
*Genetic Counseling Seminar:    Biesecker/Erby 415.861.92  2
Supervised Clinical Rotation     Erby   415.851.92  4
Genetic Counseling Supervision   Biesecker/Erby 415.870.92  1
+Developmental Bio and Human Mal I L. Biesecker 415.670.92  1
Therapeutic Genetic Counseling    Biesecker 415.631.92  2

12

YEAR 2 – 2nd quarter

*Genetic Counseling Seminar:   Biesecker/Erby 415.861.92  2
Supervised Clinical Rotation (elective) Erby   415.851.92       2
Genetic Counseling Supervision Biesecker/Erby 415.870.92  1
Public Health Perspectives on Research ONLINEKetner 550.865.81  2
Genetic Counseling Thesis Proposal DevelopmentErby 415.882.01  2
Concepts in Qual Research for Soc/ Behav Sci (elective)Smith 410.710.92  3
+Developmental Bio and Human Mal II L. Biesecker 415.671.92  1
Fac. Family Adaptation Loss and Disability Similuk 415.651.92  2

17

YEAR 2 – 3rd quarter

*Current Topics in Mole Genetics (elec) Hart 415.866.92  1
*Genetic Counseling Seminar:    Biesecker/Erby 415.861.92  2
Supervised Clinical Rotation (elective) Erby   415.851.92  2
GC Supervision                   Biesecker/Erby 415.870.92  1
Special Studies and Research     Your Advisor 415.840.92  2
Health Literacy (elective; highly recommended) Roter 410.651.01  3
Research Ethics and Integrity    Kass 306.665.01  3
Human Judgment                   Klein 410.640.92  2

16

YEAR 2 – 4th quarter

+New Genetic Tech and Public Policy Dept. Faculty 415.619.92  3
*Genetic Counseling Seminar    Biesecker/Erby 415.861.92  2
Supervised Clinical Rotation    Erby   415.851.92  4
Genetic Counseling Supervision  Biesecker/Erby 415.870.92  1
Current Topics in Mole Genetics (elective) Hart 415.867.92  1
Special Studies and Research in GC Your Advisor 415.840.92  2
Special Studies and Res in GC (PH Genomics) Dept Faculty 415.840.92  2

15

+ This course is taught every other year.
* FAES courses
This non-credit, online mini-course MUST be completed during the first quarter so that you can take 550.866.01 during 2nd quarter. You must enroll yourself. The course includes one mandatory LiveTalk session. See http://distance.jhsph.edu/iol/ for more information and to enroll.

**QUARTER**

**YEAR 3 – 1st quarter**

*Genetic Counseling Seminar:* Biesecker/Erby 415.861.92 2
 Supervised Clinical Rotation Erby 415.851.92 4
 Advanced Genetic Counseling Biesecker 415.701.92 2
 Genetic Counseling Supervision Biesecker/Erby 415.870.92 1
 Thesis Research in Genetic Counseling Your Advisor 415.820.92 4
 +Developmental Bio and Human Mal I L. Biesecker 415.670.92 1

14

**YEAR 3 – 2nd quarter**

*Genetic Counseling Seminar:* Biesecker/Erby 415.861.92 2
 Supervised Clinical Rotation Erby 415.851.92 4
 Advanced Genetic Counseling Biesecker 415.702.92 2
 Genetic Counseling Supervision Biesecker/Erby 415.870.92 1
 Thesis Research in Genetic Counseling Your Advisor 415.820.92 8
 +Developmental Bio and Human Mal II L. Biesecker 415.711.92 1

18

Link to School PPM on ScM Degree
https://my.jhsph.edu/Resources/PoliciesProcedures/ppm/PolicyProcedureMemoranda/Academic_Programs_10_Master_of_Science_Degree_072315.pdf

Link to HBS ScM Degree Program Competencies
http://www.jhsph.edu/dept/hbs/degrees/scm_genetic_counseling/

All students take 550.860.82 (0 credits) Academic & Research Ethics at JHSPH upon matriculation.