

GENETIC COUNSELING, MS

Degree: Master of Science (MS)
Field of Study: Genetic Counseling

Program Overview

The Genetic Counseling Training Program is accredited by the Accreditation Council for Genetic Counseling (ACGC). Acquisition and mastery of clinical competencies are reflected in the Program's didactic coursework, clinical rotations, research process, and supplementary experiences. The sequence of medical genetics courses and genetic counseling courses are designed to introduce concepts regarding medical genetics, general medical practice, counseling theory and clinical skills such that they build from beginning skills to a more advanced skill set in the order needed for clinical experiences. The goal of the program is to provide students with the knowledge and clinical skills to function as competent and empathetic genetic counselors in a wide range of settings and roles. All of these activities enable successful graduates to meet the clinical competencies as outlined by the ACGC and successfully pass the American Board of Genetic Counseling certification examination (ABGC).

Experiential professional training occurs concurrently with formal coursework and over the summer between years one and two. Clinical settings include a variety of clinics and inpatient services at the Center for Human Genetics at University Hospitals Cleveland Medical Center, the Genomic Medicine Institute at the Cleveland Clinic, Genetic Services at MetroHealth Medical Center and Medical Genetics at Akron Children's Hospital. Students also rotate at the Cleveland Clinic Molecular Laboratory which includes experiences in cytogenetics, molecular genetics, and cancer cytogenetics as well as learning the roles and responsibilities of laboratory genetic counselors. Student participation in these and other departmental professional and educational activities such as lectures, seminars, journal club, grand rounds, genetics conferences, and various research, counseling and patient management conferences is expected throughout the program. Coursework and clinical experiences are designed to develop the competencies expected by the ACGC.

Graduate Policies

For graduate policies and procedures, please review the School of Graduate Studies section of the General Bulletin.

Program Requirements

MS in Genetic Counseling (plan B)

The Genetic Counseling Training Program, which is accredited by the Accreditation Council for Genetic Counseling (ACGC) is a 40 credit hour program that spans four academic semesters and an intervening summer.

The First Year

The major activities during the first year consist of course work (in the plan of study), clinical observations and defining a research question and preparing a research proposal. Observational clinical rotations begin early in the fall semester with students observing in prenatal genetics, cancer genetics, and general genetics clinics at the program's three affiliated institutions. Additionally, students meet several times over the fall semester to discuss the research process, potential topics,

development of a research question and are introduced to the faculty's research areas of interest.

In addition to continuing clinical observational rotations and research, students continue with course work including an introduction to research methods and more in-depth theory and practice in the psychosocial aspects of counseling during the spring semester.

During the intervening summer of years 1 and 2, students begin clinical rotations at the Medical Genetics Division at Akron Children's Hospital to gain exposure in various clinical settings including prenatal, general genetics, pediatrics, specialty clinics, and cancer genetics clinic. They also rotate through the Cleveland Clinic Molecular Laboratory to become familiarized with the clinical aspects of a diagnostic cytogenetics and molecular genetics laboratory.

The Second Year

The major focus of the second year is continued clinical experiences, research and taking the comprehensive written and oral examinations. Students also complete their coursework, taking one course each semester.

At the beginning of the spring semester in January, the students sit for the written comprehensive examination (covering the didactic and clinical genetic counseling material covered to date in the program) and the oral section of the examination, which is given shortly after the written portion. Both examinations are intended to allow students to expand on their knowledge base of human and medical genetics and genetic counseling. Students are expected to pass both sections of the examination in order to meet graduation requirements by the Program. The written portion of the examination is patterned after the national certification examination given by the American Board of Genetic Counseling.

Students continue to work on data collection and analyses for their research projects, which should result in a publishable document. They meet with the Program Director periodically to review their progress as well as with their research committee and of course, are meeting with their mentor on a more frequent basis. During the fall semester of the second year, the students also attend the National Society of Genetic Counselors annual education meeting. This provides an opportunity for students to meet genetic counselors from across the country, to attend scientific sessions to continue adding to their knowledge base and to meet and discuss job opportunities with prospective employers. Successful completion of the program fulfills the curricular and clinical training requirements for eligibility to sit for the certification examination given by the ABGC.

Sample Plan of Study

First Year

Fall		Hours
	Embryology (Online Course) *	
GENE 524	Advanced Medical Genetics: Molecular & Cytogenetics	2
GENE 528	Principles and Practices of Genetic Counseling	3
GENE 526 or GENE 527	Advanced Medical Genetics: Quantitative Genetics & Genomics or Advanced Medical Genetics: Biochemical Genetics	2
GENE 601	Research in Genetics	2

GENE 534	Preparing for Genetic Counseling Practice	1
Collaborative Practice I		
Hours		10
Spring		
GENE 529	Psychosocial Issues in Genetic Counseling	3
GENE 525	Advanced Medical Genetics: Clinical Genetics	2
GENE 531	Cancer Genetics	2
GENE 601	Research in Genetics	1
GENE 534	Preparing for Genetic Counseling Practice	1
Hours		9
Summer		
GENE 532	Clinical Practicum in Genetic Counseling	3
Hours		3
Second Year		
Fall		
GENE 527 or GENE 526	Advanced Medical Genetics: Biochemical Genetics or Advanced Medical Genetics: Quantitative Genetics & Genomics	2
GENE 532	Clinical Practicum in Genetic Counseling	4
GENE 601	Research in Genetics	3
Hours		9
Spring		
BETH 412	Ethical Issues in Genetics/Genomics	3
GENE 532	Clinical Practicum in Genetic Counseling	4
GENE 601	Research in Genetics	2
Hours		9
Total Hours		40

* To be taken online the summer prior to the first fall semester.

Dual Degree Options

- Bioethics and Medical Humanities, MA/Genetic Counseling, MS