

# Genetic Counseling

Degree Offered:	M.S.
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## Master of Science in Genetic Counseling

### Accreditation:

The Genetic Counseling Program is fully accredited by the Accreditation Council for Genetic Counseling (ACGC). The program received full accreditation in 2013 and was approved again 2018 for an additional eight years. Fully accredited programs must complete a rigorous process to demonstrate that the program is capable of meeting the criteria for a genetic counseling training program as established by ACGC. Programs that successfully complete this process are awarded full accreditation. All graduates of an accredited program are eligible for the board examination offered by the American Board of Genetic Counseling, Inc. (ABGC) and state licensure.

### Admission Requirements

- Baccalaureate degree from a regionally accredited college/university
- A minimum cumulative undergraduate grade point average of at least 3.0 (A = 4.0)
- A minimum GPA of 3.0 in natural science courses
- A minimum cumulative grade point average of 3.0 in the program prerequisite courses, with a minimum grade of C in each (prerequisite courses are listed below)
- Resume or CV: This should include academic qualifications, a description and timeline of any paid or volunteer work experience in crisis counseling or peer counseling setting, advocacy work (working with individuals with genetic conditions or disabilities, other special populations), paid or volunteer experience as a genetic counseling assistant (GCA) technical work in laboratories, research, or teaching experience, and any other relevant information, such as job shadowing.
- A personal statement (no more than 500 words) highlighting your motivation to become a genetic counselor and emphasizing your prior and current experiences and how they will benefit you in the profession.
- Job shadowing is strongly encouraged.
- Interview with UAB faculty
- Three letters of recommendation
- Satisfactory screening on health data questionnaire by the UAB Medical Center Student Health Service.
- Complete a criminal background check and drug screen at program admission and again prior to clinical placement as required by school policy.
- Registration with [National Matching Services](#).
- The following course prerequisites:
  - Biology (one full-year course sequence)
  - Biochemistry (one upper-level semester course)
  - Genetics (one semester course to include Mendelian and molecular genetics)

- General Psychology (one semester)
- Statistics (one semester)

## Degree Requirements

The graduate program in genetic counseling will follow the Plan II (non-thesis) option.

### Program Curriculum

#### First Year

First Term	Hours	
GC 501		3
GC 510		3
GC 560		1
GC 725		3
CDS 505		1
CDS 610		3
ECG 621		3
		<b>17</b>

**Total credit hours: 17**

#### First Year

Second Term	Hours	
GC 504		3
GC 505		3
GC 506		3
GC 560		1
ANSC 656		2
ECG 638		3
		<b>15</b>

**Total credit hours: 15**

#### First Year

Summer Term	Hours	
GC 650		2
GC 651		4
GC 698		1
		<b>7</b>

**Total credit hours: 7**

#### Second Year

First Term	Hours	
GC 560		1
GC 600		2
GC 652		2
GC 653		2
GC 698		1
CDS 605		1
		<b>9</b>

**Total credit hours: 9**

#### Second Year

Second Term	Hours	
GC 560		1
GC 602		2
GC 654		2
GC 655		2

GC 698	1-3
<b>8-10</b>	
<b>Total credit hours: 8-10</b>	

## Additional Information

Deadline for Entry Term(s):	January 7
Deadline for All Application Materials to be in the Graduate School Office:	January 15
Number of Evaluation Forms Required:	Three
Entrance Tests:	TOEFL and TWE also required for international applicants whose native language is not English.

## Essential Functions

In order to successfully complete the degree requirements for the curriculum for the Master of Science (M.S.) in Genetic Counseling Program, students must complete the academic and clinical practice requirements of the program in preparation to practice as an entry-level genetic counselor (s). As defined by the program's accrediting body, the Accreditation Council for Genetic Counseling, an entry level genetic counselor may demonstrate mastery of a broad body of genetics knowledge, and develop skills in the following domains: Genetic Expertise and Analysis; Interpersonal, Psychosocial and Counseling Skills; Education; and Professional Development and Practice. Graduate training is a rigorous and intense training process that places specific requirements and demands on enrolled students. The essential functions below extend beyond academic requirements for admission and are standards that all enrolled students must possess in order to successfully complete graduate training. All genetic counseling students must meet the following requirements:

- Communicate effectively and sensitively with patients and members of the health care team.
- Possess the mental capacity for critical thinking including the ability to assimilate, analyze, synthesize, and integrate concepts and to problem solve in a timely fashion.
- Possess the emotional health and psychological stability required for full utilization of his/her intellectual abilities, exercise good judgement, prompt completion of all responsibilities and the development of mature, sensitive and effective relationships with patients and other members of the health care team.
- Adapt to changing environments and function effectively under stress.
- Students must be able to demonstrate proficiency of all ACGC Practice Based Competencies.

ACGC Practice Based Competencies are available in the UAB GCP Student Handbook and online at <http://www.gceducation.org>.

## Contact Information

For detailed information, contact Program Director, Graduate Program in Genetic Counseling, UAB School of Health Professions, 1716 9th Avenue South, SHPB 444, Birmingham, AL 35294-1212.  
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 Website [www.uab.edu/msgc](http://www.uab.edu/msgc)

## Master of Science in Genetic Counseling

Requirements		Hours
CDS 505	Professional Skills Development	1
CDS 605	Survival Spanish for Health Professionals	1
CDS 610	Research Design and Statistics	3
ANSC 656	Human Embryology	2
ECG 621	Theories of Individual Counseling	3
ECG 638	Practicum I: Clinical Skills and Techniques	3
GC 501	Genetics in Medicine	3
GC 504	Prenatal Genetics, Embryology and Teratology	3
GC 505	Principles of Cancer and Adult Genetics and Counseling	3
GC 506	Theory and Practice of Genetic Counseling	3
GC 510	Introduction to Genetic Counseling	3
GC 600	Advanced Clinical Skills in Genetic Counseling - SL	2
GC 602	Advanced Topics in Genetic Counseling	2
GC 650	Clinical Laboratory Rotation	2
GC 651	Clinical Rotation I	4
GC 652	Clinical Rotation II	2
GC 653	Clinical Rotation III	2
GC 654	Clinical Rotation IV	2
GC 655	Clinical Rotation V	2
GC 725	Advanced Medical Genetics and Genomics	3
<b>Non-Thesis Research (take three times)</b>		<b>4</b>
GC 698	Non Thesis Research	
<b>Four hours of Journal Club</b>		<b>4</b>
GC 560	Genetic Counseling Journal Club (take four times)	
<b>Total Hours</b>		<b>57</b>

## Courses

### GC 501. Genetics in Medicine. 3 Hours.

Overview of the clinical evaluation and assessment of an individual with a congenital anomaly, intellectual disability and/or genetic condition; includes introduction to etiology of common genetic conditions, pediatric genetic counseling, and testing and treatment options for genetic disorders.

### GC 504. Prenatal Genetics, Embryology and Teratology. 3 Hours.

Basic concepts of embryology, teratology and physiology as related to human development and genetic disease and their applications in prenatal genetic counseling.

### GC 505. Principles of Cancer and Adult Genetics and Counseling. 3 Hours.

Genetic mechanisms of cancer syndromes, cancer predisposition, and adult onset disorders; psychosocial issues related to these conditions that influence the genetic counseling process.

### GC 506. Theory and Practice of Genetic Counseling. 3 Hours.

Development of advanced genetic counseling skills for application in clinical settings.

### GC 510. Introduction to Genetic Counseling. 3 Hours.

Introduction to the field of genetic counseling and the basic principles of the profession.

### GC 535. Medical Genetics Across the Lifespan. 1 Hour.

Applications in patient care of medical genetics and genomics; genetic family and medical history collection; indications for referral to medical genetics; appropriate use and interpretation of genetic testing; ethical issues in medical genetics.

**GC 545. Genetics and Genomics Applications in Health Care. 2 Hours.**

Introduction for non-clinicians to the basic principles of medical genetics and the applications of genetics and genomics in healthcare.

**GC 560. Genetic Counseling Journal Club. 1 Hour.**

Review, presentation and discussion of relevant literature in medical genetics and genetic counseling.

**GC 575. Special Topics in Genetic Counseling. 1-4 Hour.**

Exploration of current issues in Genetic Counseling.

**GC 600. Advanced Clinical Skills in Genetic Counseling - SL. 2 Hours.**

Advanced genetic counseling clinical skills utilized in reflective practice, industry, and psychosocial counseling. Students will have opportunities to understand and participate in the lived experiences of people with disabilities through clinical and non-clinical professional duties as a genetic counselor. Attention will be placed on personal and group reflection of these experiences, including service learning and simulations.

**GC 602. Advanced Topics in Genetic Counseling. 2 Hours.**

Exploration of advanced topics in genetic counseling related to clinical practice and non-clinical professional duties as a genetic counselor.

**GC 650. Clinical Laboratory Rotation. 2 Hours.**

Exposure to genetic testing protocols, laboratory genetic counseling, and specimen processing and reporting through rotation in biochemical, molecular, and cytogenetic laboratories.

**GC 651. Clinical Rotation I. 4 Hours.**

Initial clinical rotation to establish basic skill sets in genetic counseling. Supervised and direct patient contact in prenatal, pediatric, adult, cancer, and specialty clinics will allow students to acquire cases for American Board of Genetic Counseling (ABGC) certification.

**GC 652. Clinical Rotation II. 2 Hours.**

Students utilize intermediate clinical skills in assigned clinical setting. Students interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

**GC 653. Clinical Rotation III. 2 Hours.**

Students will apply progressive genetic counseling skills in a clinical setting. Students will interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

**GC 654. Clinical Rotation IV. 2 Hours.**

Students will apply progressive genetic counseling skills in a clinical setting. Students will interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

**GC 655. Clinical Rotation V. 2 Hours.**

Students will apply progressive genetic counseling skills in a clinical setting. Students will interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

**GC 698. Non Thesis Research. 1-3 Hour.**

Graduate level research project under the supervision of clinical faculty.

**GC 725. Advanced Medical Genetics and Genomics. 3 Hours.**

Medical application of advances in genetics and genomics; chromosome structure and function and major types of chromosomal abnormalities, cancer genetics and cytogenetics; current strategies for detection of mutations associated with genetic disorders, genetic risk assessment and population genetics; genomic approaches to diagnosis and risk stratification.