

# GENETIC COUNSELING, M.S.

## Program Information

The OU MSGC Program successfully trained board-eligible Genetic Counselors from 2003-2024. The program has withdrawn its accreditation through the Accreditation Council for Genetic Counselors (<http://gceducation.org/>) (ACGC) and is closed for admission until further notice.

Our students received a distinctive education, built upon the rich tradition of innovative curricula and cutting edge research at OUHSC.

- This is a full-time, two-year Master of Science Program that will successfully prepare you to be a practicing Genetic Counselor.
- The overall objective of the program is to educate and train master level candidates to become capable of providing genetic counseling to patients and families with known or suspected genetic conditions and to perform basic and/or clinical research in all areas of genetics.
- Centered in the Department of Pediatrics of the College of Medicine, our program involves close collaboration with other departments in the College of Medicine, the College of Public Health, and the Oklahoma Medical Research Foundation.
- Students receive a strong science, research, and psychosocial curriculum. Didactic course work encompasses medical genetics, psychosocial theory, counseling techniques, clinical and molecular genetics, and cytogenetics.
- Clinical practicums provide the students with supervised experience in many areas of clinical genetics including; prenatal diagnosis counseling, cancer genetics counseling, clinical metabolic genetics, and laboratory techniques in cytogenetics and molecular genetics, and others.
- Students complete an original investigation, a written thesis, and oral comprehensive defense examination. Our students routinely present their research with a poster presentation at OUHSC Pediatric Research Day.
- Graduates of the program are eligible to apply for Active Candidate Status through the ABGC and to sit for the Board Certification Examination.
- Our graduates are working throughout the U.S. in multiple clinical settings, including pediatric genetics, hereditary cancer, and prenatal genetics.

## Mission Statement

To guide the development in thought, action, and attitude of exemplary professional genetic counselors through academic pursuits, clinical and laboratory experiences, research success, and community opportunities.

## Facilities

All coursework and clinical rotations are held in the on the 300-acre University of Oklahoma Health Sciences Center campus in the heart of Oklahoma City. Additionally, we are able to contract with outside institutions for clinical rotations as directed by individual student interest.

## Career Opportunities

Genetic counseling as a profession includes positions in private industry, laboratories, research units, and private physician groups as well as in academic centers. Many genetic counselors function as co-investigators or primary investigators for varied projects from clinical studies to

laboratory investigations including work on the Genome project. For more detailed information about genetic counseling as a career visit the website for the National Society of Genetic Counselors at <http://www.nsgc.org/>

## Cost

It is the student's responsibility to ensure they are enrolled in the prescribed courses and to pay tuition and fees at the time designated by the Bursar's Office. Details regarding tuition/fee charges and collection are available from the Bursar's Office.

## Prerequisites

- Successful completion of a Bachelor's degree in biology, sociology, psychology, or a related field.
- Minimum GPA of 3.0 on the last 60 hours of graded coursework
- GRE scores within the past 5 years.
- Students for whom English is a second language must earn a minimum score of 600 (paper-based) or 100 (internet-based) within 2 years prior to application on the TOEFL.
- 3 letters of recommendation
- Current CV/Resume

## Required Coursework

- Biology (2 semesters)
- General Chemistry (2 semesters)
- Organic Chemistry (2 semesters)
- Biochemistry (1 semester)
- Genetics (1 semester)
- General Sociology or Psychology (1 semester)
- Abnormal Psychology (1 semester)
- Statistics, Research Methods, or Experimental Design (1 semester)

## Recommended Coursework

- Molecular Genetics
- Embryology
- Anatomy
- Medical Terminology
- Upper division Sociology and/or Psychology
- Basic computer proficiency

## Master of Science Degree Requirements

Taken on a full-time basis, course work will require twenty-one months of study. The total time for classroom courses, practicums, and thesis will be 48 semester hours. Didactic course work will encompass medical genetics, psychosocial theory, counseling techniques, applied clinical and molecular genetics, and cytogenetics. A major element of the educational program will be clinical practicums to provide the students with supervised actual experience in clinical genetics, prenatal diagnosis counseling, cancer genetics counseling, clinical metabolic genetics, and laboratory techniques in cytogenetics, and molecular genetics.

Candidates for the Master of Science in Genetic Counseling must meet requirements for the master's degree as described elsewhere in this bulletin. The full 48 hours of course work must be completed with a minimum grade point average of 3.0 as well as attendance and/or

participation in departmental journal club, grand rounds, clinic case conferences, committee meetings, teaching opportunities, and support group meetings is required. There must be satisfactory completion of a thesis proposal: an original investigation, a written thesis, and oral comprehensive defense examination.

Code	Title	Hours
GENC 5002	Human Population Genetics	2
GENC 5011	Topics in Genetic Counseling	1
GENC 5021	An Introduction to Clinical Skills	1
GENC 5024	Psychosocial Aspects of Genetic Counseling	4
GENC 5031	Prenatal Diagnosis and Screening	1
GENC 5091	Introduction to Clinical Research	1
GENC 5102	Genomics, Environment, and Lifestyle	2
GENC 5121	Professional Issues for Genetic Counselors	1
GENC 5122	Molecular and Cytogenetics Laboratory	2
GENC 5202	Cancer Genetics	2
GENC 5203	Medical Genetics Clinic Practicum	3
GENC 5212	Systems Disorders for Genetic Counselors	2
GENC 5213	Amniocentesis Clinic Practicum	3
GENC 5221	Cytogenetics and Molecular Cytogenetics	1
GENC 5222	Molecular Basis of Genetic Disease	2
GENC 5233	Inborn Errors of Metabolism	3
GENC 5351	Genetic Counseling in the Clinical Laboratory Rotation	1
GENC 5352	Cancer Genetics Clinical Rotation	2
GENC 5361	Multi-disciplinary Clinical Rotation	1
GENC 5381	Advanced Genetic counseling Clinical Rotation	1
GENC 5401	Genetic Basis of Adult Onset and Common Complex Disorders	1
GENC 5980	Research for Master's Thesis	1-3
GENC 6002	Pharmacogenomics: The Foundation of Personalized Medicine	2
CELL 5142	Human Embryology	2
BMSC 5102	Fundamentals of Scientific Writing	2

## Admissions

The program is not currently accepting applications.

## Program Objectives

The Master of Science in Genetic Counseling is centered in the Department of Pediatrics of the College of Medicine, but involves close collaboration with other departments in the College of Medicine, the College of Public Health, and the Oklahoma Medical Research Foundation. The overall objective of the program is to educate and train master level candidates to become capable of providing genetic counseling to patients and families with known or suspected genetic conditions and to perform basic and/or clinical research in all areas of genetics.