

- Genetic counselors combine their knowledge of basic science, medical genetics and counseling theory with their skills in genetic assessment, education, and interpersonal communication to provide services to clients and families.
- Genetic counseling is a process of educating individuals and/or families about their chances of passing on genetic predispositions or disorders to their children or of having inherited disorders themselves. By providing information about the implications of genetic conditions, genetic counselors help people make informed medical and personal decisions.
- Professionals in this field collect extensive family health histories, assist in interpreting information, analyze the chance of recurrence and review the prognosis and available medical management information.
- Besides having a strong understanding of the science of genetics and the ability to teach this in an easy to understand way, genetic counselors provide counseling during difficult times. They form part of a support network and assist in connecting people with further community services.
- Genetic counselors serve as a resource for other health professionals who may not have a full understanding of the genetics involved or the family issues they are encountering.
- Many genetic counselors are also involved in research.
- Genetic counselors may discuss available or experimental gene therapies with clients. They are not, however, the professionals who implement this kind of treatment.

## Education & Licensure

- Genetic counselors are certified through the American Board of Genetic Counselors (ABGC).
- Certification to practice requires a master's degree, clinical experience in an ABGC approved site, a logbook of at least 50 supervised cases, and completion of general and specialty certification exams.
- Coursework during training generally includes genetics, population genetics, cytogenetics, teratogen counseling, molecular genetics as well as psychosocial theory, disability studies, and counseling techniques.
- Programs generally require a minimum of a 3.0 undergraduate GPA, though actual GPA for admission may be considerably higher as there are few programs and each takes only a small number of students.

## Preparation

- Observation in a genetic counseling clinic is highly recommended.
- Strong applicants generally also explore the counseling profession by volunteering as a crisis-counselor and/or interacting with people with disabilities or in bereavement counseling.
- Research experience is a plus. Learning about human subjects review boards is also useful.
- The Graduate Record Exam (GRE) general test is required at most programs.
- For those from non-English speaking countries, the TOEFL is usually required.
- Each graduate program can set its own requirements so students need to research possible programs and learn about their required courses.

### Common Prerequisite Courses (required courses determined by each program but similar to this list)

Subject	Course	Purdue Equivalents (specific courses may vary by major)
Biology with lab	General	BIOL 11000-11100 or BIOL 13100 & BIOL 23100 & 23200 (lab) or BIOL 23000 & upper level biology (including 2 hours of lab)
	Genetics	BIOL 24100 & BIOL 24200 (lab)
Chemistry with lab (except for biochem)	General (inorganic)	CHM 11500-11600 or CHM 12901 (11500 credit exam recommended) or CHM 12500-12600 or CHM 12300-12400 or CHM 13600
	Organic	CHM 25500-25600 or CHM 26100-26200 or CHM 26505-26605 or MCMP 20400-20500
	Biochemistry	BCHM 30700 or BCHM 56100 or CHM 33900 or CHM 43300 or MCMP 20800 (CHM 33300, CHM 53300)
Psychology	Introduction	PSY 12000, developmental psychology courses or HDFS 21000 recommended
Statistics		STAT 30100 or STAT 50300 or PSY 20100* or SOC 38200*
Recommended Coursework		English composition, Biomedical Ethics (PHIL 27000), Sociology, Religious Studies and Philosophy courses, Upper level biology may be required

\*Ask individual genetic counseling programs if they will accept these courses toward their requirements. ~~Courses~~ no longer offered.

**Student Organization:** Genetic Counseling Club, Caduceus Club, Biology Club

## Program Information Resource

- [Accredited Genetic Counseling Programs](https://www.gceducation.org/students-volunteers/#program) <https://www.gceducation.org/students-volunteers/#program>

## Applying

- Apply directly with the individual schools of genetic counseling.
- For most programs (including Indiana schools), applicants will also need to register through the [Genetic Counseling Admissions Match](https://natmatch.com/gcadmissions/) and send this identifying number with their application to individual programs. <https://natmatch.com/gcadmissions/>
- After interviews are completed in the winter/spring, students and programs will rank each other and a match is completed and results are released in April.
- Competitive applicants will have:
  - Strong academic performance
  - Above national average scores on the GRE
  - Research experience
  - Counseling or crisis response experience
  - Leadership, teamwork, and communication skills
  - Volunteer and shadowing/observation experiences
  - Strong positive letters of recommendation
- Early application is essential as many programs take only a handful of students.

## Fee Assistance

- Visit specific school websites to learn if fee assistance is available.
- [GRE Fee Reduction Program](https://www.ets.org/gre/score-users/reducing-barriers/fee-reductions.html) <https://www.ets.org/gre/score-users/reducing-barriers/fee-reductions.html>

## Employment Outlook

- While most genetic counselors work in university medical centers or private or public hospitals, others work in research, diagnostic labs, the pharmaceutical industry, public health, healthcare consulting, marketing and product development, policy development and advocacy.
- Genetic counselors work in a number of specialty areas including:
  - Assisted reproductive technologies & infertility
  - Cardiovascular genetics
  - Familial cancer risk counseling
  - Fetal intervention and therapy
  - Neurogenetics
  - Pediatric counseling
  - Prenatal counseling and ultrasound anomalies
  - Psychiatric disorders
- Salaries range from \$58,000-\$150,000 depending on type of position and years of experience. The [Bureau of Labor Statistics](https://www.bls.gov/ooh/healthcare/genetic-counselors.htm) estimated the average salary in 2020 to be \$85,700. Jobs in the field are projected to grow by 20% through 2029. <https://www.bls.gov/ooh/healthcare/genetic-counselors.htm>

## Diversity Matters

*The genetic counseling field needs professionals who look just like you, and who share your life experiences. Race or ethnicity, LGBTQ+ identity, disability, age, geographic region, socioeconomic status, social and cultural identity, and nationality all add to a richer experience for all students in the genetic counseling classroom, contribute to the genetic counseling profession, and ultimately lead to better outcomes for clients/patients.*

## Programs in the State

- [Indiana University](https://medicine.iu.edu/genetics/education/graduate-degrees/masters-counseling) Indianapolis, IN <https://medicine.iu.edu/genetics/education/graduate-degrees/masters-counseling>
- [Indiana State University](https://www.indstate.edu/cas/genetic-counseling) Terre Haute, IN <https://www.indstate.edu/cas/genetic-counseling> (temporarily not accepting students)

## More Information

- [American Board of Genetic Counseling](https://www.abgc.net/) (ABGC) <https://www.abgc.net/>
- [National Society of Genetic Counselors](https://www.nsgc.org/) (NSGC) <https://www.nsgc.org/>
- [Indiana Network of Genetic Counselors](http://www.ingc.info/site/) (INGC) <http://www.ingc.info/site/>

## Other Careers to Consider

Physician (Medical Geneticist) · Social Work · Counseling · Human Donation Science

## Preparing for your Giant Leap

[purdue.edu/preprofessional](http://purdue.edu/preprofessional)