Genetic Counseling

What do Genetic Counselors do?

♦ Genetic counselors provide information to families who have members with possible genetic disorders and to those who may have an increased chance for a variety of inherited conditions.

♦ They collect extensive family health histories, assist in interpreting information, analyze the risks of recurrence and review the prognosis and available medical management with families.

♦ Besides having a strong understanding of the science of genetics and the ability to teach this to families in easy to understand ways, genetic counselors provide counseling to families who are often going through a difficult time.

♦ They form part of a support network for the families and assist in connecting them with further community and state services.

♦ Genetic counselors also serve as resources 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 involved in research both in their own field and in medical genetics.

♦ Genetic counseling is a process of educating families about their chances of passing on genetic predispositions or disorders to their children or of having inherited disorders themselves.

♦ Genetic counselors may discuss available or experimental gene therapies with clients, they are not, however, the professionals who implement this kind of treatment.

How do I become a Genetic Counselor?

♦ 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.

♦ Entry into a master’s program will require a bachelor’s degree, certain prerequisite courses, and generally an aptitude test (the GRE).

♦ 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.

What prerequisite courses do I need?

♦ As this field involves both science and counseling skills, students need to take a variety of classes.

♦ Each graduate program can also set its own requirements so students need to research possible programs and learn about their required courses.

Typical Required Courses for Genetic Counseling Programs

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<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Purdue Equivalent</th>
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<tbody>
<tr>
<td>Biology</td>
<td>General</td>
<td>BIOL 11000-11100 or 13100 and 23100/23200</td>
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<tr>
<td></td>
<td>Genetics</td>
<td>BIOL 24100/24200</td>
</tr>
<tr>
<td>Chemistry</td>
<td>General (inorganic)</td>
<td>CHM 11500-11600 or equivalent</td>
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<tr>
<td></td>
<td>Organic</td>
<td>CHM 25500/25501 and 25600/25601 or equivalent</td>
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<tr>
<td></td>
<td>Biochemistry</td>
<td>BCHM 56100 or BCHM 30700 or CHM 33300 or CHM 53300</td>
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<tr>
<td>Psychology</td>
<td>Introduction</td>
<td>PSY 12000</td>
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<tr>
<td>Statistics</td>
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<td>STAT 30100 or 50300</td>
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<tr>
<td>Additional Recommended Coursework</td>
<td></td>
<td>Human developmental psychology, English composition, Biomedical Ethics, Sociology, Religious Studies and Philosophy courses</td>
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What else do I need to do before I apply?
♦ 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.
♦ Research experience is a plus and should include learning about human subjects review boards.
♦ The Graduate Record Exam (GRE) general test is needed to apply to most programs.
♦ For those from non-English speaking countries, the TOEFL is generally required.

How do I apply?
♦ Application is made directly with the individual schools of genetic counseling.
♦ Early application is recommended as many programs take only a handful of students.

What is the job outlook?
♦ Listed as one of the Top Ten Hot Jobs for 2007 by CareerBuilder.com, genetic counseling appears to have a bright future.
♦ As people become more aware of genetics and as genetic interventions develop, genetic counselors will be well positioned for growth in their field.
♦ Most genetic counselors work in university medical centers or private and public hospitals though some are found in public health offices, biotechnology firms, pharmaceutical companies, and other positions.
♦ Salaries range from $58,000-$150,000 depending on type of position and years of experience. Average salary is about $60,000.

Where can I get more information?
American Board of Genetic Counseling
http://www.abgc.net

National Society of Genetic Counselors
http://www.nsgc.org

Programs in Region:
IUPUI
http://genetics.medicine.iu.edu/education/master-of-science-genetic-counseling-program/

Northwestern University
http://www.cgm.northwestern.edu

University of Cincinnati
http://www.geneticcounseling4u.org/about/about.html

For more information about genetic counseling programs or your interests in the health professions, contact the Center for Pre-Professional Advising at 765-496-2690 or preprofessional@purdue.edu.

Information for this career guide came from the above websites, and those of individual schools.