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Dear Genetic Counseling Student,

Welcome! The University of Utah Graduate Program in Genetic Counseling (UUGPGC) is honored to have you join us for two years of exploration and growth. The extraordinarily exciting profession of genetic counseling offers a myriad of opportunities in direct patient care, laboratory, research, and education and continues to expand into new areas of healthcare.

The University of Utah has a rich heritage in genetic discovery. Nobel Prize 2007 laureate, Dr. Mario Capecchi, characterized the University of Utah as a place where “scientists can work on long-term goals in a synergistic atmosphere of cooperation.” Vizient, Inc. has rated University of Utah Health among the top ten academic medical centers in the nation for quality, safety, and accountability nine of the past ten years. And recently, the 2018-2019 U.S News & World Report Best Hospital Rankings listed the University of Utah Hospital as the Number 1 hospital in the state of Utah and the Salt Lake City metro area. The University of Utah’s Huntsman Cancer Institute ranked in the top 50 hospitals in the country for cancer care.

Our genetic counseling program benefits from a strong multi-disciplinary collaboration incorporating 67 hours of didactic, laboratory, clinical, research, and community outreach experiences to prepare our students for solid professional performance and career satisfaction.

We encourage you to keep this handbook close as a resource. Become familiar with the Administrative Personnel and Faculty. On the Resources page, explore the links to find what campus resources are available to you. Study the Requirements for the University of Utah M.S. in Genetic Counseling and ask any questions that you may have. Review the many Rotation options and take ownership of your adventure in these areas. Carefully read the Portfolio requirements in order to use this tool to showcase your accomplishments during your graduate school career. Investigate the Research project opportunities and pursue an idea that will be educational, fulfilling, and relevant to the genetic counseling profession. Be sure to become familiar with the NSGC Code of Ethics and University Policies and Procedures.

In short, embrace this opportunity as an avenue to an exciting future. We are so happy to have you onboard!

Sincerely,

Karin M. Dent, MS, LCGC
Director, UUGPGC

Erin Harward, MS, LCGC
Assistant Director, UUGPGC

David Viskochil, MD, PhD
Medical Director, UUGPGC
UUGPGC PROGRAM

DESCRIPTION

The University of Utah’s two-year master’s degree program in Genetic Counseling integrates didactic coursework, clinical rotations, supplementary community activities, and an independent research project to best prepare students for a successful career in genetic counseling. The didactic and experiential components of the UUGPGC support the development of the Practice-Based Competencies for Genetic Counselors, which are the minimal skill set of genetic counselors, applied across practice settings.

The University of Utah Graduate Program in Genetic Counseling housed in the University of Utah School of Medicine and Department of Human Genetics is an interdisciplinary collaboration between many additional University departments with participation from several local hospitals and laboratories that contribute to students’ unique and rich training experiences.

The twenty-one (21) month program is comprised of 67 credit hours in the Department of Human Genetics. Our first class graduated in 2007 and our 12th class graduated in the spring of 2018. The UUGPGC received full accreditation (for an eight year period) from the Accreditation Council for Genetic Counseling (ACGC) in 2014.

MISSION OF THE PROGRAM

“We are a visionary, integrated team of clinicians, scientists, and educators dedicated to establishing excellence in tomorrow’s genetic counselors. We accomplish this by:

- Providing current information using diverse educational techniques,
- Fostering professionalism in accordance with the NSGC Code of Ethics, and
- Building outstanding skills in communication, scholarship, research, and Lifelong learning.”
PROGRAM ADMINISTRATION CONTACT INFORMATION

PROGRAM DIRECTORSHIP

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Phone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karin M. Dent, MS, LCGC;</td>
<td>SOM 2C454</td>
<td>801-581-8629</td>
<td><a href="mailto:karin.dent@hsc.utah.edu">karin.dent@hsc.utah.edu</a></td>
</tr>
<tr>
<td>Program Director</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erin Harward, MS, LCGC;</td>
<td>SOM 2C454</td>
<td>801-581-8629</td>
<td><a href="mailto:EHarward@humana.com">EHarward@humana.com</a></td>
</tr>
<tr>
<td>Assistant Director</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>David Viskochil, MD, Ph.D.,</td>
<td>Williams Bldg</td>
<td>801-581-8943</td>
<td><a href="mailto:dave.viskochil@hsc.utah.edu">dave.viskochil@hsc.utah.edu</a></td>
</tr>
<tr>
<td>Medical Director</td>
<td></td>
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PROGRAM MANAGEMENT

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Diane S. Meyer, BS, Prog.</td>
<td>SOM 2C454</td>
<td>801-581-8629</td>
<td><a href="mailto:diane.meyer@hsc.utah.edu">diane.meyer@hsc.utah.edu</a></td>
</tr>
<tr>
<td>Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stefanie Lauritzen, BS,</td>
<td>EIHG 5100</td>
<td>801-581-4422</td>
<td><a href="mailto:stefaniel@genetics.utah.edu">stefaniel@genetics.utah.edu</a></td>
</tr>
<tr>
<td>Academic Coord.</td>
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FACULTY
As a multidisciplinary program, we have a large, varied, and multi-talented faculty. Please see our website: [www.uugpgc.genetics.utah.edu/faculty](http://www.uugpgc.genetics.utah.edu/faculty) for more information.

PROGRAM COMMITTEES: The program committees are the decision-making bodies of the UUGPGC. Committees are comprised of program participants with expertise in multiple settings and specialties across Utah. Current committees include Admissions, Advisory, Curriculum, Clinical Supervision, Executive, Graduate Supervisory, and Research Oversight. Committee membership is by invitation only, except for the Clinical Supervision Committee, which has open membership.

Executive Committee Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Karin Dent, MS, LCGC</td>
<td>Director, UUGPGC</td>
</tr>
<tr>
<td></td>
<td>Associate Professor, Department of Pediatrics</td>
</tr>
<tr>
<td>Willard Dere, MD</td>
<td>Associate VP Research, Health Sciences; Vice Dean Research, School of Medicine</td>
</tr>
<tr>
<td>Erin Harward, MS, LCGC</td>
<td>Assistant Director, UUGPGC</td>
</tr>
<tr>
<td>Lynn Jorde, Ph.D.</td>
<td>Professor and Chair, Department of Human Genetics</td>
</tr>
<tr>
<td>David Viskochil, MD, PhD</td>
<td>Medical Director, UUGPGC</td>
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<tr>
<td></td>
<td>Professor, Department of Pediatrics</td>
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</tbody>
</table>
### Advisory Committee Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Erin Baldwin, MS, LCGC</td>
<td>Community Genetic Counselor, Manager, ARUP Genetic Counseling Services</td>
</tr>
<tr>
<td>Bonnie Baty, MS, LCGC</td>
<td>UUGPGC Program Director, Emerita</td>
</tr>
<tr>
<td>Cynthia Curry, MD</td>
<td>External Clinical Geneticist; University of California, Fresno</td>
</tr>
<tr>
<td>Karin Dent, MS, LCGC</td>
<td>Program Director, University of Utah, Department of Pediatrics</td>
</tr>
<tr>
<td>Robin Grubs, MS, LCGC</td>
<td>External Program Director, University of Pittsburgh</td>
</tr>
<tr>
<td>Erin Harward, MS, LCGC</td>
<td>Assistant Director, Humana</td>
</tr>
<tr>
<td>Jenna Petersen, MS, LCGC</td>
<td>UUGPGC Alumni, Class of 2018</td>
</tr>
<tr>
<td>Wayne Samuelson, MD</td>
<td>University of Utah School of Medicine Representative</td>
</tr>
<tr>
<td>Briana Sawyer, MS, LCGC</td>
<td>Internal Genetic Counselor, Pediatric Cardiology</td>
</tr>
<tr>
<td>David Viskochil, MD, PhD</td>
<td>Medical Director, University of Utah, Department of Pediatrics</td>
</tr>
<tr>
<td>Ann Walker, MS, LCGC</td>
<td>External Genetic Counselor retired</td>
</tr>
</tbody>
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RESOURCES

Campus Safety **
https://safeu.utah.edu

Career and Professional Development Center
https://careers.utah.edu

Center for Student Wellness
http://wellness.utah.edu

Department of Human Genetics
http://genetics.utah.edu

Graduate School
http://gradschool.utah.edu/graduate-catalog/

LGBT Resource Center
https://lgbt.utah.edu

Maps
https://www.utah.edu/printable-maps/

Office for Equity and Diversity
https://diversity.utah.edu/

Registrar’s Office
http://registrar.utah.edu

Student Health Center
http://studenthealth.utah.edu

Tuition Expenses
http://tbs.admin.utah.edu/income/

University Counseling Center
http://counselingcenter.utah.edu

University of Utah Graduate Program in Genetic Counseling
http://uugpgc.genetics.utah.edu/

Women’s Resource Center
https://womenscenter.utah.edu
**Safety and Wellness**

*Your safety is our top priority.* In an emergency, dial 911 or seek a nearby emergency phone (throughout campus). Report any crimes or suspicious people to 801-585-COPS; this number will get you to a dispatch officer at the University of Utah Department of Public Safety (DPS; dps.utah.edu). If at any time, you would like to be escorted by a security officer to or from areas on campus, DPS will help — just give a call.

The University of Utah seeks to provide a safe and healthy experience for students, employees, and others who make use of campus facilities. In support for this goal, the University has established confidential resources and support services to assist students who may have been affected by harassment, abusive relationships, or sexual misconduct.

Your well-being is key to your personal safety. **If you are in crisis, call 801-587-3000; help is close.**

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**CALENDARS AND CURRICULUM**

**ACADEMIC CALENDAR**
www.registrar.utah.edu/academic-calendars/

**PROGRAM CALENDAR:**
An updated program calendar is provided to students at orientation.

**UUGPGC COURSES**

**Biochemical Genetics, H GEN 7380** (3) Prerequisite: College level biochemistry.

This course will educate graduate students, medical students, and residents on the fundamentals of biochemical genetics. It provides an overview of biochemical pathways, the biochemical and molecular basis of inborn errors of metabolism, the mechanism of inheritance including recurrence risk, the diagnostic approach to metabolic disorders and their treatment.

**Cancer Genetics, H GEN 6503** (3) Prerequisite: Genetic counseling students or permission of instructor.

This hybrid course is designed to provide the fundamentals of cancer genetics and genetic counseling of hereditary cancer syndromes. Topics include cancer screening, prevention, diagnosis, and treatment. The course also includes an in-depth survey of cancer genetic syndromes and techniques to conduct an appropriate cancer risk assessment for high-risk patients. Students will be expected to review lectures and complete assessments online in addition to applying learned skills to practice cases in class. Core and guest lectures will be supplemented with interactive discussions and student presentations. This course aims to provide a foundation for the genetic counseling cancer rotation.

**Clinical Genetics, H GEN 6470** (3) Prerequisite: Genetic counseling students or permission of instructor.

This course consists of a series of lectures on a wide variety of genetic disorders, their natural history, available treatment, and inheritance patterns. The application of the medical and genetic information to genetic counseling with families will be emphasized.
Counseling Skills H GEN, 6211 (3) Prerequisite: Genetic counseling students. Cross Listed with ED PS 6210

Basic interviewing and counseling skills, relationship skills, formulation of counseling objectives, and modes of intervention. Pre-practicum experience to prepare students to work with clients.

Genetic Counseling Laboratory Rotation, H GEN 6550 (2) Prerequisite: Genetic counseling students or permission of instructor.

Students will have the opportunity to observe practicing genetic counselors, clinical variant scientists, and laboratory procedures including PCR, Sanger sequencing, NGS sequencing, enzyme assays, karyotyping, FISH, and SNP genomic microarray. They will get hands-on practice with karyotyping/scoping chromosomes and applying ACMG variant classification criteria to specific gene variants. Students will participate in workshops focusing on molecular genetics, biochemical genetics, cytogenetics, non-invasive prenatal testing (NIPT), and maternal serum screening. They will also gain familiarity with topics that include but are not limited to: mosaicism, runs of homozygosity, methylation, urea cycle disorders, organic acidurias, hemoglobinopathies, and spinal muscular atrophy. Students will review genetic test orders for appropriateness and may have the opportunity to contact a health care provider to obtain clinical information or communicate abnormal results while under the supervision of a certified genetic counselor. Finally, they will be tasked with developing and delivering case presentations.

Genetic Counseling Research, H GEN 6900 (1-3) Prerequisite: Genetic counseling students only.

Independent research for genetic counseling students. Students will be evaluated on the quality and timeliness of their research project, including the research proposal, research in progress, and research defense presentations in the first and second years. To receive credit and graduate from the UUGPGC, students must follow the research syllabus guidelines and complete all requirements.

Genetic Counseling Seminar I: Principles of Genetic Counseling, H GEN 6420 (3) Prerequisite: Genetic counseling students only.

The purpose of this course is to introduce the student to the principles of genetic counseling. The course develops clinical and psychosocial genetic counseling skills through a variety of methods including lectures, role-plays, and practice genetic counseling sessions with simulated patients. The course also covers the history of genetic counseling and clinical genetics, teaches basic competencies in genetic counseling, explores community experiences with genetic conditions, and provides instruction in the genetic counseling process, pedigree analysis, the impact of genetic conditions and disabilities, public health influences in clinical genetics, and psychosocial aspects of genetic counseling.

Genetic Counseling Seminar II: Psychosocial Genetic Counseling, H GEN 6430 (3) Prerequisite: Genetic counseling students only.

The purpose of this course is to continue building the psychosocial counseling concepts and skills introduced the previous semester as well as expand knowledge of genetic counseling concepts, clinical tools, delivering difficult news, and professional opportunities and responsibilities. The course continues with class discussions, lectures, role-plays, critical thinking exercises, and work with simulated patients in developing advanced psychosocial counseling skills with opportunities to demonstrate the diversity in competency in psychosocial interactions with clients.

Genetic Counseling Seminar III, H GEN 6440 (3) Prerequisite: Genetic counseling students only.
This course promotes genetic counseling students’ continued professional and psychosocial development. It provides students with opportunities to develop skills to perform well in job searches and interviews, to effectively present information verbally and in writing to a wide variety of audiences, and to gain exposure to different models of service delivery. It also provides a forum to learn from difficult cases, increase clinically useful knowledge and skills, synthesize community activities, explore negotiation techniques, and expand knowledge and use of genetic resources.

Genetic Counseling Seminar IV, H GEN 6450  (3) Prerequisite: Genetic counseling students only.

This course promotes genetic counseling students’ continued professional and psychosocial development as they prepare to enter the professional workforce. It provides students with skills to perform well in their first professional position, deliver effective oral presentations, pursue lifelong learning, apply multicultural skills to genetic counseling situations, explore public health topics in genetics, learn from difficult cases, and explore economic issues in genetics. Students will understand the ABGC certification process and develop skills to improve their performance on the ABGC certification examination.

Genetic Counseling Thesis Research, H GEN 6970  (1-15) Prerequisite: Genetic counseling students only. Independent master’s thesis research for genetic counseling students.

Genetics and Medicine: Ethical, Legal and Social Issues, H GEN 6700  (2) Prerequisite: Genetic counseling students or permission of instructor.

This course is designed to engage students in emerging ethical, legal, and social issues facing the use and practice of genetics in medicine. The course offers a mix of didactic content, case studies, and class discussion.

Genetics, Genomics and Environmental Influences of Complex Adult Conditions/Adult Genetics, H GEN 6410  (2) Prerequisite: Genetic counseling students or permission of instructor.

This hybrid course covers topics related to genetic conditions seen in adults. Mendelian, as well as multifactorial, conditions will be discussed. Given the hybrid nature of the course, students will be expected to review online lectures and participate in online discussions, in addition to in-class discussions and assignments. Lectures will be given by a variety of content experts from across the nation. Genetic counseling skills for clinical practice will be emphasized throughout the course as well.

Human Genetics, H GEN 6500  (3) Prerequisite: Genetic counseling students or permission of instructor.

This course covers topics related to human genetics and the mechanisms of gene and cellular regulation, DNA structure, genes and mutations, basic cytogenetics, population genetics, immune-genetics, and risk analysis.

Introduction to Epidemiology, MDCRC6010 (Online course)  (1) Prerequisite: Graduate Status

Basic epidemiology, including: measures of disease frequency, measures of effect, basic study designs, confounding, bias, stratification, and casual reasoning.

Perinatal Genetics, H GEN 6300  (3) Prerequisite: Genetic counseling students only.

This course offers fundamentals of perinatal genetics for genetic counseling students prior to clinical rotations. Provides an overview of topics in perinatal genetics including management of normal and complicated pregnancy, genetic screening, prenatal diagnostic techniques and indications, teratogens and infertility. Covers the diagnosis and management of pregnancies
complicated by maternal and fetal genetic disease, fetal anomalies, and pregnancy loss as well as reproductive options such as pregnancy termination. Core and guest lectures are supplemented with interactive discussions and student presentations.

**Pregnancy Risk Line/Myriad Genetics Rotation, H GEN 6800** (2) Prerequisite: Genetic counseling students or permission of instructor.

At MotherToBaby UT, students will expand their knowledge of clinical teratology with the goal of having a foundation of teratology counseling to provide exposure information to clients in a subsequent perinatal rotation. Course topics include principles of teratology and pharmacology, congenital anomalies, known teratogens, client counseling, lactation, substances of abuse, maternal depression, herbal medications, and occupational/environmental exposures. Students will engage in readings, lectures, exposure reviews, group discussions, teratology call observation, and case conferences.

At Myriad Genetic Laboratories, students will learn about the different roles that genetic counselors can assume in a commercial laboratory setting. Course topics include variant classification, review of genetic testing technology, review of interesting cases, and discussion of Myriad products. Students will participate in lectures, group discussions, scientific article review, and on-call observations.

**Professional Development in Genetic Counseling, H GEN 6400** (1) Prerequisite: Genetic counseling students only.

Professional topics vary, but include attendance and presentation of clinical cases at Case Management Conference and Discussion Group (Div. of Medical Genetics) as well as attendance and presentation of articles in Genetic Counseling Journal Club.

**Supervised Clinical Rotation H GEN 6850** (.5-.6.0) Prerequisite: Genetic counseling students only.

Students will participate in clinical rotations in settings such as adult genetics, general genetics, metabolic genetics, perinatal genetics, pediatric genetics, cancer genetics, and/or specialty clinics. Genetic counseling students are required to successfully complete clinical rotations, generally consisting of 5 rotations of 6-8 weeks in length. One of these rotations may also include research activities. In non-elective clinical rotations, students will practice genetic counseling skills under the supervision of board-certified genetics professionals.

**Journal Club**

Genetic Counseling Journal Club will introduce genetic counseling students to the process of evaluating and presenting literature relevant to clinical practice and research. Information about the identification and detection of genetic disorders, clinical phenotypes and natural history associated with conditions, optimal medical management, outcome data, and genetic service models is being published at a breakneck pace. The ability to critically analyze and present this literature among colleagues and to apply the information clinically have become key competencies as genetic counselors strive to establish themselves as experts in the translation of new technologies into clinical practice. Journal Club will meet 8 times annually—4 times each semester Fall and Spring. Both 1st and 2nd-year students will participate along with faculty facilitators. Other guests and/or program faculty members will be invited to participate and present articles.
TEXTBOOKS
Textbook requirements are subject to change. Upon admission, students are provided with updated textbook requirements.
<table>
<thead>
<tr>
<th>Semester</th>
<th>Name of Course</th>
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<tr>
<td><strong>Fall 2019</strong></td>
<td>Biochemical Genetics</td>
<td>HGEN 7380</td>
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<tr>
<td>16 cr</td>
<td>Introduction to Epidemiology (online – begins 10/14/19)</td>
<td>MDCRC 6010-090</td>
<td>1</td>
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<tr>
<td></td>
<td>Counseling Skills &amp; Process</td>
<td>HGEN 6211</td>
<td>3</td>
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<td></td>
<td>Genetic Counseling Seminar I: Principles of Genetic Counseling</td>
<td>HGEN 6420</td>
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<td>Human Genetics</td>
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<td>Perinatal Genetics</td>
<td>HGEN 6300</td>
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<td>Embryology Certificate (University of Cincinnati) online</td>
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<tr>
<td><strong>Spring 2020</strong></td>
<td>Research Methods for Genetic Counseling Students</td>
<td>HGEN 6350</td>
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<td>Cancer Genetics</td>
<td>HGEN 6503</td>
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<td>Clinical Genetics</td>
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<td>Genetic Counseling Seminar II: Psychosocial Genetic Counseling</td>
<td>HGEN 6430</td>
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<td>Genetics, Genomics, and Environmental Influences of Complex Adult Conditions</td>
<td>HGEN 6410</td>
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<td>Multicultural Counseling</td>
<td>H GEN 6360</td>
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<td>Professional Development in Genetic Counseling</td>
<td>H GEN 6400</td>
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<tr>
<td><strong>Summer 2020</strong></td>
<td>Genetic Counseling Research</td>
<td>HGEN 6900 or 6970*</td>
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<td>Genetic Counseling ARUP Laboratory Rotation</td>
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<td>Pregnancy Risk Line/Myriad Genetics Rotation</td>
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<td>Supervised Clinical Rotation in Genetic Counseling</td>
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<tr>
<td><strong>Fall 2020</strong></td>
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<td>HGEN 6440</td>
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<td>13.5 cr</td>
<td>Genetic Counseling Research</td>
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<td>Supervised Clinical Rotation in Genetic Counseling, Sections 1 - 3</td>
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<tr>
<td><strong>Spring 2021</strong></td>
<td>Genetic Counseling Seminar IV</td>
<td>HGEN 6450</td>
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<td>Ethical and Legal Issues in Human Genetics</td>
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<td></td>
<td>Supervised Clinical Rotation in Genetic Counseling, Sections 1 - 3</td>
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Total credits: 31 credits 1st year + 9 credits summer + 27 credits 2nd year = 67 credits (66 in HGEN)

* If completing a formal thesis
ROTATIONS: CLINICAL and NON-CLINICAL

Genetic counseling students are required to complete six, six-week rotations. Students will participate in rotations in general/pediatric or pediatric cardiology genetics, perinatal genetics, cancer genetics, specialty clinics, and/or an elective rotation setting. The elective rotation may be in one or more clinical, research, or other non-clinical setting. In clinical rotations, students will practice genetic counseling skills under the supervision of board-certified genetics professionals.

First-year students are assigned clinical experiences in general, perinatal, cancer genetics, and/or specialty clinics. These range from observational experiences to participatory experiences. In addition, first-year students are required to attend at least 50% of Medical Genetics Case Management Conferences (CMC). The CMC is a weekly conference that reviews cases seen in Medical Genetics Clinics from the previous week, with digital photos and/or imaging studies of most patients. One of the clinical geneticists holds weekly sessions in the first and second semesters to help students learn the terminology and common syndromes discussed in CMC. For up to half of these, students may substitute attendance at another conference (such as tumor boards at HCI or Intermountain Healthcare) that is approved by a UUGPGC supervisor. First-year students are required by the Perinatal Genetics course to attend Prenatal Conference, a monthly conference that reviews prenatal cases, during their first semester.

Second-year students in the first six weeks of the summer semester will have a block rotation in the laboratory, industry, and teratology settings. The first week is in teratology at the Pregnancy Risk Line/Mother to Baby, the next three weeks are at ARUP Laboratories, and the last two weeks at Myriad Genetics.

Starting in the second half of the summer, second year students begin rotating through the following required rotations. A schematic representation of the clinical rotations is included below.

- Three, six-week perinatal, pediatrics, and cancer clinical rotations:
  - The Perinatal genetics clinical rotation is six weeks in length and is conducted at either the University of Utah or Intermountain Healthcare.
  - The Pediatrics genetics rotation is based in Pediatric Genetics at the University of Utah or the Pediatric Cardiology rotation at Primary Children’s Hospital. This rotation includes General Genetics Clinics at Primary Children’s Eccles Outpatient facility and the Riverton Primary Children’s Outpatient Clinic, Hearing Assessment Clinic at Primary Children’s Hospital (PCH), Genetic Counseling Clinic, and other activities such as the inpatient consult service, general genetics outreach clinics, and specialty clinics that serve families with specific conditions (e.g. Neurofibromatosis clinic, Spina Bifida Clinic, HHT Clinic, Skeletal Dysplasia clinic, Cornelia deLange Clinic, Tuberous Sclerosis Clinic, etc).
  - Each student also conducts one six-week Cancer genetics rotation at Huntsman Cancer Institute, Intermountain Medical Center, or St. Mark’s Hospital.

- Two Specialty Clinic Rotations (six weeks each)
  - Specialty clinic settings include: Metabolic Genetics; Pediatric Cardiology; Adult Cardiology (two locations); Neurology (Pediatric & Adult); Ophthalmology; Newborn Screening; HHT Clinic; VA/Genome Medical Services (telehealth); Pediatric Oncology; and many others.
  - Students may substitute another clinical rotation instead of those listed above (e.g., a summer clinical rotation outside Utah in a mixed patient population, a second prenatal rotation in a different setting, etc).
• **Elective Rotation** (six weeks): The elective rotation is a student-designed rotation that may be scheduled in one block (six weeks) or two blocks of three weeks each:
  o Students may choose to do a clinical or non-clinical rotation at the University of Utah or another local healthcare facility or in an industry, laboratory, and/or research setting. Elective rotations must be approved by the program director.
  o Many students also conduct their elective rotation at a mixture of locations. A list of previous elective rotations is available to students.

### Sample Rotation Schematic:

<table>
<thead>
<tr>
<th>Dates</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong></td>
<td>HCl - Peds Onc</td>
<td>Peds Cardio</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>IMC - Ob</td>
<td>HCl</td>
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<tr>
<td><strong>U</strong></td>
<td>HCl</td>
<td>Peds</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>IMC - Ca</td>
<td>VA</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Peds Card</td>
<td>HCl</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>Fresno</td>
<td>Adult Neuro</td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>Peds</td>
<td>Adult Cardiology, U of U</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>U of U Ob</td>
<td>Peds Neuro</td>
</tr>
</tbody>
</table>

### Portfolio Contents and Tracking

1. Each student will keep an e-portfolio to document their UUGPGC experiences. The portfolio should be stored on a computer with adequate backup. The complete e-portfolio is required for graduation. Students may wish to use their portfolio for job interviews or other purposes.
2. The portfolio should contain an Excel Clinical Case Spreadsheet with a list of all cases seen. As a requirement for graduation, the spreadsheet will include:
   - a minimum of 50 required ACGC cases
   - an additional minimum of 25 ACGC/UUGPGC cases
   - all observational cases.

### Rotation Evaluation

Students will be evaluated by their rotation supervisor on the development and improvement of their skills in genetic counseling activities including the practice-based-competencies (or the progress of their research for a research rotation), completion of all required tasks in a timely manner, their ability to maintain appropriate professional conduct, meeting rotation objectives, and adherence to the written requirements of the rotation.

Supervisors complete a student evaluation at the midpoint and end of each rotation and meet with students to discuss their evaluation, discuss the student’s evaluation of the
rotation setting (at end of rotation only), and set goals for the second half of the rotation or the next rotation. Evaluations should be based on consistent criteria and should take into account practice-based competency developmental goals (see Cross-Rotation Objectives, provided to enrolled students).

Clinical rotations (H GEN 6850) are graded on a pass/fail basis. Students failing a rotation are required to complete an additional equivalent rotation.

Students are required to evaluate each rotation. These evaluations should be given to the rotation supervisor at the final rotation meeting. Students also have the opportunity each semester to anonymously evaluate rotations through the course evaluation for Supervised Clinical Rotation in Genetic Counseling. The evaluations are collated at the end of the year and given to the relevant program faculty to facilitate improvement in supervisory skills. Both supervisors and students are encouraged to give respectful, constructive feedback.

Most UUGPGC supervisors belong to the Clinical Supervision Committee which meets periodically for planning, education about teaching and supervisory skills, and to provide a forum to monitor student progress and troubleshoot problems with clinical rotations.
RESEARCH PROJECT

The University of Utah Graduate Program in Genetic Counseling requires the satisfactory completion of a research experience that can be either an independent research project or a thesis.

The goals of the research experience are for GC students to:
- design and implement a research project,
- carry out the institutional requirements for research,
- develop research questions, analyze data, and interpret results,
- deliver oral presentations of the research study,
- demonstrate the basic skills and knowledge required to be involved in research,
- critically appraise research results,
- interface knowledgeably with investigators,
- establish and maintain a professional relationship with committee members,
- create a journal-ready manuscript, and
- communicate plans for submission of the manuscript.

Research Project Guidelines:

Genetic counseling students should choose a research project that analyzes primary or secondary data sets in an innovative way. A primary data set is one generated by the genetic counseling student in the course of executing the research project, whereas a secondary data set has been generated previously by another investigator to which the genetic counseling student has been permitted access.

Research topics may include investigations of the psychological, biological, sociological, political and/or ethical aspects of genetic disease/birth defects and the research may be conducted in a clinical, laboratory, and/or community setting. Literature reviews, case reports, and designing or implementing patient, professional, and community education programs are not acceptable research projects.

Alternatively, students can elect to do a formal master's thesis. Such students would register for research credits using HGEN 6970 and must adhere to University of Utah thesis guidelines. This includes the composition of the student research committee, guidelines for the format of the written thesis manuscript, and approval of the final manuscript by the University thesis editor: https://gradschool.utah.edu/graduate-catalog/thesis-and-dissertation-regulations/
REQUIREMENTS FOR M.S. IN GENETIC COUNSELING (UUGPGC Class of 2021)

1. Students must meet the general requirements for a Master’s degree at the University of Utah (http://gradschool.utah.edu/graduate-catalog/degree-requirements/)

2. Students must complete a minimum of 67 graduate credit hours (5000 level or above) with a grade of B- or higher (or pass if the course is only offered on a pass/fail basis), with a minimum GPA of 3.0.

3. Students must complete the curriculum of the Graduate Program in Genetic Counseling with a grade of B- or higher in all courses with letter grades. The Program includes one elective clinical rotation that must be approved by the Program Director. A signed e-copy of the elective rotation contract must be submitted to the program director prior to the commencement of the rotation.

4. Clinical rotations will be graded on a pass/fail basis. Students failing a clinical rotation must repeat and pass the equivalent rotation in order to graduate. Students must submit electronic forms of all rotation evaluations, signed rotation spreadsheets (when applicable), and logbook/case examples to the program director for the student e-file.

5. Obtaining a grade of less than B- in two courses will be grounds for dismissal from the Program.

6. While they are in the program students must complete a minimum of 60 clinical cases that meet ACGC logbook criteria for core cases and 15 additional cases that meet ACGC or UUGPGC criteria.

7. Students must register for at least 6 research credits and complete a thesis or independent research project. The student must have a research plan approved by the Research Oversight Committee, and the student’s individual committee must approve the final research product and presentation.

8. Students must attend and participate in all student Journal Club meetings each year unless they have an excused absence.

9. Students must attend a minimum of six (6) or 50% of Medical Genetics Case Management Conferences, whichever is greater, or other approved conferences during the first two semesters. They may trade out up to half with other approved conferences.

10. Students must complete a portfolio that meets the standards outlined in the document Portfolio Contents. Students must submit an e-copy of all parts of the portfolio to the program director, including a final copy of the research paper approved by the student’s research committee, a cumulative spreadsheet with all cases, a spreadsheet of the ACGC required 50 core cases (by specialty), and signed copies of all completed evaluations of the student and the clinical rotation from the case log system.
11. Students must submit a **hard copy** to the program director of the final copy of the research paper approved by the student’s research committee.

12. Students must demonstrate professional behavior and are expected to communicate effectively and sensitively with patients, members of the healthcare team, and program personnel.

**POLICIES AND PROCEDURES**

**UNIVERSITY OF UTAH STUDENT CODE OF RIGHTS & RESPONSIBILITIES – POLICY 6-400**

[www.regulations.utah.edu/academics/6-400.php](http://www.regulations.utah.edu/academics/6-400.php)

The purposes of the Code of Student Rights and Responsibilities are to set forth the specific authority and responsibility of the University to maintain social discipline, to establish guidelines that facilitate a just and civil campus community, and to outline the educational process for determining student and student organization responsibility for alleged violations of University regulations. University policies are designed to protect individuals and the campus community and create an environment conducive to achieving the academic mission of the institution. The University encourages informal resolution of problems, and students are urged to discuss their concerns with the involved faculty member, department chair, dean of the college or dean of students. Informal resolution of problems by mutual consent of all parties is highly desired and is appropriate at any time.

**Academic Standing**

Candidates for graduate degrees in the genetic counseling program are required to maintain a 3.0 or higher GPA in course work counted toward the degree. Students should obtain a “B” in all program courses and “CR” in all clinical rotations. A student failing to make at least a “B” for a credit course may be required to retake the course and be placed on academic probation or dismissed from the program. A student receiving an “NC” in a clinical rotation may be required to repeat a rotation in the same specialty and may be placed on academic probation or dismissed from the program. Students receiving less than a “B” or “CR” in more than one course or clinical rotation during a semester may be subject to dismissal. A student failing to achieve “B” or “CR” in a course twice may be subject to dismissal. In general, a student’s retention in the genetic counseling graduate program is contingent on the faculty’s belief that the student is likely to complete the program successfully and practice as a competent and professional genetic counselor.

**Remediation**

Remediation is not a punishment but a valuable learning tool. Our program is fully invested in your success both as a student and a consummate professional. Students and faculty work together to identify any knowledge deficits accurately and early to improve clinical skills and competency. As part of that process, we assist students in developing learning strategies and skills for success. We view each student as an individual and strive to provide an environment of personal and educational growth. Issues in these areas are identified and plans are implemented to strengthen those areas where a student may need work in critical thinking, accountability, responsibility, communication, or teamwork.
Time Limit to Degree

The genetic counseling graduate program is designed for completion in five semesters. Occasionally, students may have health, family issues or other circumstances that delay their completion within five semesters. The program directors are anxious to work with students to accomplish that completion and successful graduation. Non-thesis candidates must be registered for at least one course per semester from the time of formal admission to a graduate degree program until all requirements for the degree, including the defense of the final project, paper, or final examination, are completed. Thesis and non-thesis candidates must meet this registration requirement unless they have an official leave of absence. See Minimum Continuous Registration and Leaves of Absence elsewhere in this section of the graduate school catalog [http://gradschool.utah.edu/graduate-catalog/](http://gradschool.utah.edu/graduate-catalog/).

NSGC CODE of ETHICS

In order to ensure that the highest standards of professional and ethical conduct are promoted and supported at the University, students must adhere to the prescribed professional and ethical standards of the profession or discipline for which the student is preparing, as adopted or recognized as authoritative by the relevant academic program. Student Code: Section VI: Student Professional and Ethical Conduct, A. Standards of Professional Conduct.

A Code of Ethics is a document which attempts to clarify and guide the conduct of a professional so that the goals and values of the profession might best be served. While attending the University of Utah, students are held to the ethical standards for the profession for which he/she is preparing. Therefore, genetic counseling graduate students must adhere to the NSGC Code of Ethics. [https://www.nsgc.org/p/cm/lvd/fid=12](https://www.nsgc.org/p/cm/lvd/fid=12)

Preamble

Genetic counselors are health professionals with specialized education, training, and experience in medical genetics and counseling. The National Society of Genetic Counselors (NSGC) is the leading voice, authority, and advocate for the genetic counseling profession. Through this code of ethics, the NSGC affirms the ethical responsibilities of its members. NSGC members are expected to be aware of the ethical implications of their professional actions and work to uphold and adhere to the guidelines and principles set forth in this code. ([https://www.nsgc.org/p/cm/lvd/fid=12](https://www.nsgc.org/p/cm/lvd/fid=12)

Introduction

A code of ethics is a document that attempts to clarify and guide the conduct of a professional so that the goals and values of the profession are best served. The NSGC Code of Ethics is based upon the distinct relationships genetic counselors have with 1) themselves, 2) their clients, 3) their colleagues, and 4) society. Each section of this code begins with an explanation of the relevant relationship, along with the key values and characteristics of that relationship. These values are drawn from the ethical principles of autonomy, beneficence, non-maleficence, and justice, and they include the professional principles of fidelity, veracity, integrity, dignity and accountability.

No set of guidelines can provide all the assistance needed in every situation, especially when different values appear to conflict. In certain areas, some ambiguity remains, allowing for the judgment of the genetic counselor(s) involved to determine how best to respond to difficult situations.
Section I: Genetic Counselors Themselves

Genetic counselors value professionalism, competence, integrity, objectivity, veracity, dignity, accountability and self-respect in themselves as well as in each other. Therefore, genetic counselors work to:

1. Seek out and acquire balanced, accurate and relevant information required for a given situation.
2. Continue their education and training to keep abreast of relevant guidelines, regulations, position statements, and standards of genetic counseling practice.
3. Work within their scope of professional practice and recognize the limits of their own knowledge, expertise, and competence.
4. Accurately represent their experience, competence, and credentials, including academic degrees, certification, licensure, and relevant training.
5. Identify and adhere to institutional and professional conflict of interest guidelines and develop mechanisms for avoiding or managing real or perceived conflict of interest when it arises.
6. Acknowledge and disclose to relevant parties the circumstances that may interfere with or influence professional judgment or objectivity, or may otherwise result in a real or perceived conflict of interest.
7. Assure that institutional or professional privilege is not used for personal gain.
8. Be responsible for their own physical and emotional health as it impacts their professional judgment and performance, including seeking professional support, as needed.

Section II: Genetic Counselors and Their Clients

The counselor-client relationship is based on values of care and respect for the client’s autonomy, individuality, welfare, and freedom in clinical and research interactions. Therefore, genetic counselors work to:

1. Provide genetic counseling services to their clients within their scope of practice regardless of personal interests or biases, and refer clients, as needed, to appropriately qualified professionals.
2. Clarify and define their professional role(s) and relationships with clients, disclose any real or perceived conflict of interest, and provide an accurate description of their services.
3. Provide genetic counseling services to their clients regardless of their clients’ abilities, age, culture, religion, ethnicity, language, sexual orientation and gender identity.
4. Enable their clients to make informed decisions, free of coercion, by providing or illuminating the necessary facts, and clarifying the alternatives and anticipated consequences.
5. Respect their clients’ beliefs, inclinations, circumstances, feelings, family relationships, sexual orientation, religion, gender identity, and cultural traditions.
6. Refer clients to an alternate genetic counselor or other qualified professional when situations arise in which a genetic counselor’s personal values, attitudes and beliefs may impede his or her ability to counsel a client.

7. Maintain the privacy and security of their client’s confidential information and individually identifiable health information, unless released by the client or disclosure is required by law.

8. Avoid the exploitation of their clients for personal, professional, or institutional advantage, profit or interest.

Section III: Genetic Counselors and Their Colleagues

The genetic counselors’ professional relationships with other genetic counselors, trainees, employees, employers and other professionals are based on mutual respect, caring, collaboration, fidelity, veracity and support. Therefore, genetic counselors work to:

1. Share their knowledge and provide mentorship and guidance for the professional development of other genetic counselors, employees, trainees and colleagues.

2. Respect and value the knowledge, perspectives, contributions, and areas of competence of colleagues, trainees and other professionals.

3. Encourage ethical behavior of colleagues.

4. Assure that individuals under their supervision undertake responsibilities that are commensurate with their knowledge, experience and training.

5. Maintain appropriate boundaries to avoid exploitation in their relationships with trainees, employees, employers and colleagues.

6. Take responsibility and credit only for work they have actually performed and to which they have contributed.

7. Appropriately acknowledge the work and contributions of others.

8. Make employers aware of genetic counselors’ ethical obligations as set forth in the NSGC Code of Ethics.

Section IV: Genetic Counselors and Society

The relationships of genetic counselors with society include interest and participation in activities that have the purpose of promoting the well-being of society and access to genetic services and health care. These relationships are based on the principles of veracity, objectivity and integrity. Therefore, genetic counselors, individually or through their professional organizations, work to:

1. Promote policies that aim to prevent genetic discrimination and oppose the use of genetic information as a basis for discrimination.

2. Serve as a source of reliable information and expert opinion on genetic counseling to employers, policymakers, payers, and public officials. When speaking publicly on such matters, a genetic counselor should be careful to separate their personal statements and opinions made as private individuals from statements made on behalf of their employers or professional societies.
3. Participate in educating the public about the development and application of technological and scientific advances in genetics and the potential societal impact of these advances.

4. Promote policies that assure ethically responsible research in the context of genetics.

5. Adhere to applicable laws and regulations. However, when such laws are in conflict with the principles of the profession, genetic counselors work toward change that will benefit the public interest.

Adopted 1/92 by the National Society of Genetic Counselors, Inc.; Revised 12/04, 1/06, 4/17

PROGRAM ON-BOARDING

Immunizations: Students must provide proof of immunizations or scheduled immunizations through University Student Health. Yearly flu vaccination documentation must be submitted in the fall when vaccination is completed.

Background Check/Drug Testing: contracted through PreCheck. Details provided upon student enrollment.

Social Media Guidelines: While social media is a primary source for many connections now, please do not ask to “friend” administrators and faculty from our program until after graduation. This allows all program participants to maintain a professional environment during your education. We encourage students to “lock” all social media accounts or make them “private.” Also, please bear in mind the following:

- Be transparent
- Be honest
- Be professional – when in doubt, do not post
- Post accurate, useful information
- Be respectful of persons, entities and copyright laws
- Protect confidentiality
- Be courteous and considerate.

Dress Code – Professional Image

Students of the University of Utah Health programs are expected to present themselves and their program in a clean, professional manner to help patients and employees feel safe, confident, and comfortable in any patient care area including the entrance to any unit or clinic, examination rooms, patient rooms, and reception/waiting areas.

Your name badge should be worn above the bottom of the sternum at eye level and free from any stickers, pins, etc. Name and photo should be legible and visible at all times.

Current and detailed dress code information is provided to students upon enrollment.

Thank you!