

<p><b>Fall 2021</b>  <b>GS11 1031: Contemporary Issues in Genetic Counseling</b>          Credit Hours: <u>  1  </u>          Meeting Location (Building/Room # or WebEx/Zoom):  <u>  McGovern Medical School B.625 (few on WebEx)  </u></p>	<p>Program Required Course: <u>  X  </u> Yes <u>      </u> No          Approval Code <u>  X  </u> Yes <u>      </u> No  <b>(If yes, the Course Director or the Course Designee will provide the approval code.)</b></p> <p>Audit Permitted: <u>      </u> Yes <u>  X  </u> No          Classes Begin: <u>  August 20, 2021  </u>          Classes End: <u>  December 10, 2021  </u>          Final Exam Week: <u>  December 10, 2021  </u></p>
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**Class Meeting Schedule:**

Day	Time
Fridays	10:00-a.m. - 12:00 p.m.

<p><b>Course Director:</b>  <b>Claire N. Singletary, MS, CGC</b>          Program Director, UT Genetic Counseling Program          Professor, Pediatrics and Obstetrics/Gynecology          McGovern Medical School, UTHealth          Email Address: <a href="mailto:Claire.N.Singletary@uth.tmc.edu">Claire.N.Singletary@uth.tmc.edu</a>          Contact Number: 713-486-2294</p> <p><b>Course Co-Director/s:</b>  <b>Jennifer Czerwinski, MS, CGC</b>          Associate Director, UT Genetic Counseling Program          Associate Professor, Obstetrics, Gynecology, Repro.Science          McGovern Medical School, UTHealth          Email Address: <a href="mailto:Jennifer.L.Sherrill@uth.tmc.edu">Jennifer.L.Sherrill@uth.tmc.edu</a>          Contact Number: 713-486-2290</p> <p><b>NOTE:</b> Office hours are available on request. Please email me to arrange a time to meet.</p>	<p><b>Instructor/s:</b> (Use additional page as needed)</p> <ol style="list-style-type: none"> <li>Kate Principe, MS, CGC              US Oncology  <a href="mailto:Kate.Principe@usoncology.com">Kate.Principe@usoncology.com</a></li> <li>Brittanie Morris, MS, CGC              McGovern Medical School, UTHealth  <a href="mailto:Brittanie.Morris@uth.tmc.edu">Brittanie.Morris@uth.tmc.edu</a></li> <li>Deana Darnes, MS, CGC              Fetal Care Center Dallas  <a href="mailto:deanna.darnes@fetalcaredallas.com">deanna.darnes@fetalcaredallas.com</a></li> <li>Carla McGruder, MS, CGC              Color Genomics  <a href="mailto:carla.mcgruder@color.com">carla.mcgruder@color.com</a></li> <li>Molly Daniels, MS, CGC              MD Anderson Cancer Center  <a href="mailto:msdaniel@mdanderson.org">msdaniel@mdanderson.org</a></li> <li>Georgiann Garza, MS, CGC              Baylor College of Medicine  <a href="mailto:Georgiann.Garza@bcm.edu">Georgiann.Garza@bcm.edu</a></li> <li>Salma Nassef, MS, CGC              Baylor College of Medicine  <a href="mailto:nassef@bcm.edu">nassef@bcm.edu</a></li> <li>Bradley Rolf, MS, CGC              University of Washington  <a href="mailto:barolf@uw.edu">barolf@uw.edu</a></li> <li>Stephanie Meredith, MS              Lettercase at University of Kentucky  <a href="mailto:stephanie.meredith@uky.edu">stephanie.meredith@uky.edu</a></li> <li>Caiqian Cropper, MS, CGC</li> </ol>
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11. Ginger Tsai, MS, CGC

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13. Sarah Bannon, MS, CGC, Genome  
Medical

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**Course description:**

This class is designed to provide a forum for delve into cultural competency, ethical issues, and professional development and to explore emerging areas of genetic counseling

**Textbook/Supplemental Reading Materials** (if any)

- Veach, LeRoy, and Callanan (2018) Facilitating the Genetic Counseling Process, ISBN# 978-3319747989
- LeRoy BS, McCarthy Veach P, Bartels DM (2021) Genetic Counseling Practice: Advanced Concepts and Skills, ISBN# 9781119529859

**Course Objective/s:**

Upon successful completion of this course, students will be able to be culturally responsive and respectful, will appreciate the broader professional genetic counseling landscape, and be poised for a career that includes self reflective practice and lifelong learning.

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**Specific Learning Objectives:****Fall:**

1. Demonstrate a self-reflective, evidence-based and current approach to genetic counseling practice
2. Integrate knowledge of psychosocial aspects of conditions with a genetic component to promote client well being
3. Understand how to adapt genetic counseling skills for varied service delivery models
4. Apply genetic counseling skills in a culturally responsive and respectful manner to all clients
5. Effectively give a presentation on genetics/genomics/genetic counseling issues
6. Advocate for individuals, families, communities and the genetic counseling profession

**Spring:**

1. Establish and maintain interdisciplinary relationships and recognize one's role in the larger healthcare system.
2. Understand the methods, roles, and responsibilities of the process of clinical supervision of trainees
3. Effectively give a presentation on genetics/genomics/genetic counseling issues
4. Advocate for individuals, families, communities and the genetic counseling profession

**Student responsibilities and expectations:**

Students enrolled in this course will be expected to perform the following activities each week.

1. Read, process, and review (study) reading material for the week
2. Complete assignments per the instructions assigned
3. Prepare for and take course quizzes based on course lectures/ readings.
4. Participate in and contribute to course discussions during lecture, review sessions

Students are expected to complete all assigned reading material (reviews and research literature) prior to class. While you may work and discuss all course materials and assignments in groups, all writing assignments must be your own. Plagiarism and failure to properly cite scientific literature and other sources will not be tolerated and are grounds for dismissal from the course and further GSBS disciplinary action. Cheating or engaging in unethical behavior during examinations (quizzes and final) will be grounds for dismissal from the course without credit and further GSBS disciplinary action. Attendance is mandatory for all assigned classes. Missing more than one class for **any reason** (excused or unexcused) will result in a reduction in the student's final letter grade by one full letter grade. Only extreme extenuating circumstances will be considered for exceptions to this rule. Extensive make-up work will be required. Please be aware that 2 tardies of 5 minutes or more to class will be considered an unexcused absence.

<b>Grading System:</b> Letter Grade (A-F); 90-100 A, 80-89 B, 70-79 C, 60-69 D, <60 F	
<b>Student Assessment and Grading Criteria :</b>	
CV and Cover Letter (5%)	Accuracy and attention to detail in preparation will be necessary to receive full credit.
NSGC Reflection (5%)	Completing the assignment below with requisite number of course sessions/types attended required along with participation in class discussion.
Intro to Countries in the Americas and contracting questions (10%)	Upload slide set on assigned country prior to class and follow directions below. Review the case scenarios on the drive and come with prepared contracting questions.
Variant Interpretation Project (25%)	See below for instructions on 3 variants to research and details findings. This serves as your midterm project for this course.
Community Presentation (10%)	Create and record module for AP Biology class per the assignment below.
Recruitment Video and Attendance (10%)	Attend one of the fall recruitment offerings of UTGCP and MGPN on behalf of the UTGCP and record a Q&A video for prospective students
Family Story Project (10%)	Work with the families of Celebration Company, either virtually or in person depending on current rules, to meet a Celebration Company participant and their family. Share your experiences in class.
Final Project on Evaluating New Test (25%)	Utilize information from class discussion on analytic validity and clinical utility to evaluate the gene assigned by the instruction and answer the questions for your final project.

## CLASS SCHEDULE

Day/Date	Duration (Hr)	Lecture Topic	Lecturer/s
8/20	2	<b>Advanced Contracting: When, How, Why</b> <ul style="list-style-type: none"> <li>McCarthy Veach Ch 6 pg 142-154</li> </ul>	Claire
8/27 WebEx	2	<b>Alternative Service Delivery</b> Required Readings: <ul style="list-style-type: none"> <li>Boothe et al. 2020</li> <li>Cohen et al. 2019</li> <li>Greenburg et al. 2020</li> </ul> Suggested Readings: <ul style="list-style-type: none"> <li>Rhoads et al. 2020</li> <li>NSGC PSS on Alt Service Delivery (p13-26)</li> </ul>	Kate Principe

		<ul style="list-style-type: none"> <li>Watch this NPR podcast:  <a href="http://www.npr.org/2013/05/14/183950898/the-promise-and-limitations-of-telemedicine">http://www.npr.org/2013/05/14/183950898/the-promise-and-limitations-of-telemedicine</a></li> </ul>	
9/3	2	<p><b>Cultural Competency - Hispanics in America</b>  Watch the following video:</p> <ul style="list-style-type: none"> <li><a href="https://www.youtube.com/watch?v=KigrtsN9xis">https://www.youtube.com/watch?v=KigrtsN9xis</a>  search Connecting Modern Medicine to Traditional Healing: Dr. Cheo Torres</li> </ul> <p>Read:</p> <ul style="list-style-type: none"> <li>Juckett, G (2013) Caring for Latino Patients. <i>Am Fam Physician</i>, 87, 1, 48-54.</li> <li>Lara-Otero K et al (2019) Genetic Counselor and Healthcare Interpreter Perspectives on the Role of Interpreters in Cancer Genetic Counseling</li> </ul>	Georgiann Garza
9/10 WebEx	2	<p><b>Cultural Competency - Black Lives Matter</b>  Readings:</p> <ul style="list-style-type: none"> <li><u>White Fragility</u> Robin Diangelo</li> <li><u>How to Be an AntiRacist</u> Ibram Kendi</li> <li>GCRJ timeline infographic</li> </ul>	Carla McGruder Brittanie Morris Deanna Darnes
9/17	2	<b>Professional Issues: Job Search, Negotiating &amp; NSGC - Getting Involved and Networking</b>	Claire Singletary
9/24		<b>NSGC - No Class</b>	
10/01  Live WebEx group 10:30-11  Watch video 11-11:30  Live WebEx class 11:30-12	2	<p><b>Variant Interpretation</b>  Readings:</p> <ul style="list-style-type: none"> <li>Richards et al (2015) Standards and guidelines for the interpretation of sequence variants: a joint consensus recommendation of the American College of Medical Genetics and Genomic and Association for Molecular Pathology. <i>Genetics in Medicine</i></li> </ul> <p>Videos:</p> <ul style="list-style-type: none"> <li>Watch videos 1 &amp; 2 before class</li> <li>Meet in groups over WebEx (or in person if your group prefers) from 10:30-11 (or before) to complete ACTIVITY <ul style="list-style-type: none"> <li>Group 1: Natalie, Emile, Jenny, Michelle</li> <li>Group 2: Gina, Jenna, Emilyn</li> </ul> </li> </ul>	Caiqian Cropper Amanda Harding

		<ul style="list-style-type: none"> <li>○ Group 3: Shelly, Mandy, Katie</li> <li>● Watch video 3 from 11-11:30</li> <li>● Attend live discussion with Caiqian from 11:30-12</li> </ul>	
10/08	2	<p><b>NSGC Reflection: debrief on conference</b></p> <p><b>Advanced Psychosocial: Advanced Empathy I</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>● McCarthy Veach Ch 8</li> </ul>	<p>Claire</p> <p>Sarah Bannon &amp; Claire</p>
10/15	2	<p><b>Advanced Empathy II: Role Plays</b></p>	<p>Sarah Bannon &amp; Claire</p>
10/22	2	<p><b>Cultural Competency – Muslims in America</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>● Healthcare Providers Guide – Muslim patients</li> <li>● Rabin - Respecting Muslim Patients’ Needs</li> <li>● Lipka - Muslims and Islam Key Findings in the US</li> <li>● Rubin - Doctors Trust with Muslim patients</li> </ul>	<p>Salma Nassef</p>
10/29 WebEx	2	<p><b>Cultural Competency - LGBTQ+</b></p> <p>Readings:</p> <ul style="list-style-type: none"> <li>● Nathan et al. Genetic Counselors’ and Genetic Counseling Students’ Implicit and Explicit Attitudes Towards Homosexuality. <i>JGC</i>. 2018</li> <li>● Sacca et al. Trans-counseling: a case series of transgender individuals at high risk for BRCA1 pathogenic variants. <i>JGC</i>. 2019</li> <li>● Zayhowski et al. Cancer genetic counselors’ experiences with transgender patients: a qualitative study. <i>JGC</i>. 2019</li> </ul>	<p>Brad Rolf</p>
11/05 WebEx	2	<p><b>Cultural Competency - Individuals with Disabilities - Lived experience and the ADA</b></p> <p>Reading:</p> <ul style="list-style-type: none"> <li>● “Characteristics and perspectives of families waiting to adopt a child with Down syndrome” by Lindh et al.</li> </ul>	<p>Stephanie Meredith</p>

		Review <ul style="list-style-type: none"> <li>• <a href="http://www.ndsan.org/">http://www.ndsan.org/</a></li> <li>• <a href="https://www.lettercase.org/">https://www.lettercase.org/</a></li> <li>• <a href="http://www.downsyndromeprenataltesting.com/">http://www.downsyndromeprenataltesting.com/</a></li> </ul>	
11/12	2	<b>Evaluation of New/Controversial Genetic Tests</b> Discussion	<b>Molly Daniels</b>
11/19	2	<b>Evaluation of New/Controversial Genetic Tests – Focus on SNP-Based Genome Tests for Common Diseases</b> Hand out Final Paper assignment	<b>Molly Daniels</b>
11/26		<b>Thanksgiving break - NO CLASS</b>	
12/03 WebEx/TBD	2	<b>Cultural Competency: AAPI</b> <ul style="list-style-type: none"> <li>• How it feels to be Asian in today's America - New York Times</li> <li>• Additional Readings to be added by November 1 by panelists</li> </ul>	<b>Ginger Tsai &amp; panel TBD</b>
12/10*	2	<b>Cultural Competency: Adults with Disabilities - Family Story</b>  <i>*note date may change depending on date of Advanced Rotation Exam</i>	<b>Claire &amp; Jen</b>

#### ASSIGNMENT INFORMATION:

Due date	Points	Description
09/03/21	5	<b>CV and cover letter</b> Each student is responsible for developing a CV and cover letter to be utilized at the NSGC annual conference and/or in their future job search. Specific information on content for the CV will be distributed. A working draft is due on <b>09/03/21 (upload for Claire &amp; email to your Mentor)</b> . Second draft due by <b>09/17/21 to Claire</b>
10/08/21	5	<b>NSGC Reflection</b> Document your attendance at the number of sessions below by listing title and attendance code. Provide a short summary of each plenary and EBS. In addition, provide three overall takeaways from the poster sessions and three overall

		<p>takeaways from platform sessions that you can apply to your own thesis research poster/platform (what will you avoid or try to replicate).</p> <p>Sessions:</p> <ol style="list-style-type: none"> <li>1. Plenary (3)</li> <li>2. EBS - educational break out session (3)</li> <li>3. Platform presentation (5 total - may jump between sessions)</li> <li>4. Posters</li> <li>5. Sponsored Industry Symposium (1)</li> </ol> <p>Each person will present in class on one event that they attended. No duplicates.</p>										
<p>09/03/21</p>	<p>10</p>	<p><b>Hispanics in America -upload slides before class</b></p> <p><b>Brief Introduction to Countries in the Americas (5 pts)</b></p> <p>In order for us to understand our patients better, we need to understand where they are coming from. We will dig a little bit deeper into Central and Latin America. <b>Prepare 3 slides to present in 2-3 minutes.</b> These should include the following:</p> <ul style="list-style-type: none"> <li>● Country flag, the current president and capital</li> <li>● Main language spoken and religious beliefs</li> <li>● Current political status: Are there political issues going on? Why? (Brief)</li> <li>● Health care system (if you are able to find it)</li> <li>● One tourist place in the country</li> <li>● One typical dish of the country</li> </ul> <table border="1" data-bbox="509 1247 1408 1646"> <tr> <td>Argentina - Emilyn</td> <td>Ecuador - Jenna</td> </tr> <tr> <td>Brazil - Émile</td> <td>Guatemala - Katie</td> </tr> <tr> <td>Chile - Jenny</td> <td>Honduras - Mandy</td> </tr> <tr> <td>Columbia - Shelly</td> <td>Venezuela - Michelle</td> </tr> <tr> <td>El Salvador - Natalie</td> <td>Mexico - Gina</td> </tr> </table> <p><b>B. Write 5 contracting questions for each of the scenarios on file in the drive &amp; upload to your folder. (5pts)</b></p>	Argentina - Emilyn	Ecuador - Jenna	Brazil - Émile	Guatemala - Katie	Chile - Jenny	Honduras - Mandy	Columbia - Shelly	Venezuela - Michelle	El Salvador - Natalie	Mexico - Gina
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<p>10/01/21</p>	<p>10</p>	<p><b>Advocacy/Outreach – Recruitment to the profession</b></p>										



		<ol style="list-style-type: none"> <li>1. Attend one of the following (sign up): UTGCP Recruitment event or MGPN event virtual fairs - <i>MGPN: September 28, 2021 11am - 3pm CST &amp; September 30, 2021 2pm - 6pm CST, UTGCP October 8, 2021 2-5pm</i></li> <li>2. Record a 20-30 min group video for posting to the UTGCP Recruitment event page for asynchronous viewing. Get creative with the format. Make certain to wear clinic appropriate or UTGCP/TSGC attire and remember that this is what you are sharing with the world about your program!</li> </ol> <p><b>Group 1: Natalie, Emile, Michelle, Mandy, Shelly</b>  Tell us about yourself (where are you from/undergrad/any work experience)  How many schools did you apply to and why?  What types of advocacy experiences did you have or would you suggest?  What did you do to prepare for interviews?  What items became important to you in the interview process that you wish you would have known when selecting where to apply?  How does the curriculum prepare you for patient care?  What do you like about rotations at UTGCP?</p> <p><b>Group 2: Katie B, Gina, Jenny, Emily, Jenna</b>  Tell us about yourself (where are you from/undergrad/any work experience)  What shadowing experiences did you have/do you recommend (how much, how many specialties, interviews vs in person, etc)?  What type of research background did you have prior to applying?  Describe the thesis process and the support received.  What do you like about living in Houston as a student?  What did the program do to address the COVID-19 pandemic?  How does the program prepare you for non patient facing roles?  What is your favorite thing about the UTGCP?</p>
10/15/21	25	<p><b>Variant Interpretation Project</b></p> <p>Variant curation is the process of identifying, documenting, and evaluating the available evidence about a genetic variant in order to determine its clinical significance. Labs may adapt the ACMG Standards and Guidelines for the Interpretation of Sequence Variants for the context in which they perform testing (for example, it is important to consider if the setting is diagnostic or screening). It is helpful for genetic counselors to understand the process and factors in classifying genetic variants even if they are in clinical roles. In the context of this assignment, students will classify variants that are detected in a carrier screening setting.</p> <ul style="list-style-type: none"> <li>● Understand established guidelines for classifying sequence variants.</li> <li>● Learn how to gather variant information from understanding the molecular mechanism, public databases, published literature, or other tools.</li> </ul>

		<ul style="list-style-type: none"> <li>● Weigh and synthesize available information about the variant into a determination of pathogenicity of the variant.</li> </ul> <p><b>Instructions:</b></p> <p>A. Assign a classification to the variants assigned on the drive.</p> <ol style="list-style-type: none"> <li>1. Work on one variant at a time.</li> <li>2. Using the <b>Resources</b> provided as a starting point, search databases and the published literature for case studies, functional studies, and additional evidence regarding each variant. For each paper or resource that mentions the variant, these are helpful things to look for: <ul style="list-style-type: none"> <li>● Total # cases (do not include carriers in total cases)</li> <li>● Total # controls (population controls, can also be called normal/healthy/non--carriers; should not include experimental negative controls or controls that did not have genotyping or sequencing studies performed; do not count healthy family members as controls)</li> <li>● Total # affected alleles (total possible number of alleles that could have a mutation - this is often just the # of cases x2. The term 'affected' refers to individuals with a diagnosis of disease)</li> <li>● Total # affected alleles with variant</li> <li>● Total # control alleles</li> <li>● Total # control alleles with variant</li> <li>● # homozygous affected individuals</li> <li>● # homozygous unaffected individuals</li> <li>● Functional study and findings of the functional analysis</li> <li>● Observation of another variant on the SAME allele (in cis). Note the pathogenicity of the cis variant, if available</li> <li>● Any other data might be useful for classification</li> </ul> </li> <li>3. Once you have curated your papers and other resources, assign a classification according to the classification criteria provided in <b>Resources</b>. Provide your rationale for the classification.</li> <li>4. <b>Submit the form on the drive to complete your assignment.</b> Email <a href="mailto:ccropper@concertgenetics.com">ccropper@concertgenetics.com</a> with any questions along the way.</li> </ol>
11/05/21	10	<p><b>Community Presentation</b></p> <p>Each group is responsible for developing a 50 minute powerpoint presentation and recording the presentation/exercise for use in asynchronous teaching. Include an exercise or other student involving task that the class could do and then explain the answers as a part of your module.</p> <p style="text-align: center;"><b>Module 1:      Basic Genetics Module: Jenny and Mandy</b> Audience: AP Biology High School Students Ex: Central Dogma, Modes of Inheritance with examples of genetic conditions, Punnett squares</p> <p style="text-align: center;"><b>Module 2:      Taking a Genetic Family History: Natalie and Shelly</b></p>

		<p><b>and Katie B</b> Audience: AP Biology High School Students Ex: Basic pedigree taking skills with practice, examples with assessment for the mode of inheritance, basic risk assessment</p> <p><b>Module 3: Introduction to Genetic Testing Methods: Jenna and Michelle</b> Audience: AP Biology High School Students Ex: Karyotype, CMA, WES, WGS, MS/MS, tumor testing - should build on Module 1&amp; 2 - right test for right condition</p> <p><b>Module 4: Becoming a Genetic Counselor: Emilyn and Gina</b> Audience: AP Biology High School Students What background needed to be a GC, What are the job options, What do GCs do, What is the salary, satisfaction, etc</p>
12/03/21	25	<p><b>Final Paper – Fall term – Evaluation of new/controversial genetic tests –</b> As a genetic counselor, it is important to be able to take information presented in the public domain and in the scientific literature and determine not only your personal point of view but also the information you will articulate to your patients. Each student will be assigned a new and/or controversial genetic test to research, and will write a paper summarizing their findings, with particular regard to both clinical utility and what information to present to an interested patient. Please type your paper. It should be 3-5 pages long. <b>Paper due to Molly by 5:00pm on 12/03/21</b></p>
12/10/21 (bio due 9/17/21)	10	<p><b>A Family’s Story – Student Presentations</b></p> <p>You will contact a family that has an adult with a genetic condition and set up a time to talk to the parents/caretaker by WebEx/Zoom and then to talk to the adult who has the genetic condition to learn more about their story/journey outside of a clinical setting. How this experience has impacted them financially, emotionally, etc. How has it changed the dynamics in their family? Their goals, fears, etc. for their family? Celebration Company: <a href="http://www.celebrationcompany.org/">http://www.celebrationcompany.org/</a></p> <p><b>Provide a two or three sentence introduction about yourself plus a selfie/photo that can be shared with participants (think about using plain language) and their families by September 17.</b> Upload to the drive folder that we will share with the Director of Celebration Company: <a href="https://drive.google.com/drive/folders/1Y4ie_YTG9UHqEDW2mS_oFC3awq_IAEU?usp=sharing">https://drive.google.com/drive/folders/1Y4ie_YTG9UHqEDW2mS_oFC3awq_IAEU?usp=sharing</a></p>

		<p>-You will either visit Celebration Company in person to tour or sign up to attend one wed/thurs am Zoom session (covid restriction dependent).</p> <p>- Families will be asked to volunteer to be paired up with a student. You will be asked to talk to the participant once per semester and the family/guardian/support person once per semester.</p> <p>Create two slides to share at class - one with picture of your participant, if possible and take aways from that discussion, second with take aways from talking to family member and re Celebration Company.</p>
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