

# GC-Genetic Counseling

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## **GC 501. Genetics in Medicine. 3 Hours.**

Overview of the clinical evaluation and assessment of an individual with a congenital anomaly, intellectual disability and/or genetic condition; includes introduction to etiology of common genetic conditions, pediatric genetic counseling, and testing and treatment options for genetic disorders.

## **GC 504. Prenatal Genetics, Embryology and Teratology. 3 Hours.**

Basic concepts of embryology, teratology and physiology as related to human development and genetic disease and their applications in prenatal genetic counseling.

## **GC 505. Principles of Cancer and Adult Genetics and Counseling. 3 Hours.**

Genetic mechanisms of cancer syndromes, cancer predisposition, and adult onset disorders; psychosocial issues related to these conditions that influence the genetic counseling process.

## **GC 506. Theory and Practice of Genetic Counseling. 3 Hours.**

Development of advanced genetic counseling skills for application in clinical settings.

## **GC 510. Introduction to Genetic Counseling. 3 Hours.**

Introduction to the field of genetic counseling and the basic principles of the profession.

## **GC 535. Medical Genetics Across the Lifespan. 1 Hour.**

Applications in patient care of medical genetics and genomics; genetic family and medical history collection; indications for referral to medical genetics; appropriate use and interpretation of genetic testing; ethical issues in medical genetics.

## **GC 545. Genetics and Genomics Applications in Health Care. 2 Hours.**

Introduction for non-clinicians to the basic principles of medical genetics and the applications of genetics and genomics in healthcare.

## **GC 560. Genetic Counseling Journal Club. 1 Hour.**

Review, presentation and discussion of relevant literature in medical genetics and genetic counseling.

## **GC 575. Special Topics in Genetic Counseling. 1-4 Hour.**

Exploration of current issues in Genetic Counseling.

## **GC 600. Advanced Clinical Skills in Genetic Counseling - SL. 2 Hours.**

Advanced genetic counseling clinical skills utilized in reflective practice, industry, and psychosocial counseling. Students will have opportunities to understand and participate in the lived experiences of people with disabilities through clinical and non-clinical professional duties as a genetic counselor. Attention will be placed on personal and group reflection of these experiences, including service learning and simulations.

## **GC 602. Advanced Topics in Genetic Counseling. 2 Hours.**

Exploration of advanced topics in genetic counseling related to clinical practice and non-clinical professional duties as a genetic counselor.

## **GC 650. Clinical Laboratory Rotation. 2 Hours.**

Exposure to genetic testing protocols, laboratory genetic counseling, and specimen processing and reporting through rotation in biochemical, molecular, and cytogenetic laboratories.

## **GC 651. Clinical Rotation I. 4 Hours.**

Initial clinical rotation to establish basic skill sets in genetic counseling. Supervised and direct patient contact in prenatal, pediatric, adult, cancer, and specialty clinics will allow students to acquire cases for American Board of Genetic Counseling (ABGC) certification.

## **GC 652. Clinical Rotation II. 2 Hours.**

Students utilize intermediate clinical skills in assigned clinical setting. Students interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

## **GC 653. Clinical Rotation III. 2 Hours.**

Students will apply progressive genetic counseling skills in a clinical setting. Students will interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

## **GC 654. Clinical Rotation IV. 2 Hours.**

Students will apply progressive genetic counseling skills in a clinical setting. Students will interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

## **GC 655. Clinical Rotation V. 2 Hours.**

Students will apply progressive genetic counseling skills in a clinical setting. Students will interact with an array of genetic specialists. Supervised and direct patient contact in prenatal, pediatric, adult, cancer and specialty clinics will allow students to acquire cases for ABGC certification.

## **GC 698. Non Thesis Research. 1-3 Hour.**

Graduate level research project under the supervision of clinical faculty.

## **GC 725. Advanced Medical Genetics and Genomics. 3 Hours.**

Medical application of advances in genetics and genomics; chromosome structure and function and major types of chromosomal abnormalities, cancer genetics and cytogenetics; current strategies for detection of mutations associated with genetic disorders, genetic risk assessment and population genetics; genomic approaches to diagnosis and risk stratification.