

GENETIC COUNSELING (HGEN)

HGEN 700 - Medical Genetics for Health Professionals (3 Credits)

An overview of the role of genetics in health and illness. Focus of study includes strategies for diagnosis, prevention, and treatment of genetic disease and the integration of genetics into clinical practice.

HGEN 701 - Introduction to Genetic Counseling (3 Credits)

An overview of the history and development of genetic counseling. Introduction to the fundamental components of and skills utilized in prenatal, pediatric, and adult genetic counseling.

Prerequisites: admission to program.

HGEN 702 - Psychosocial Aspects of Genetic Counseling (3 Credits)

Exploration of the impact of genetic conditions on the individual and family. Psychosocial skills will be strengthened through reading, role play, discussion, and interactions with affected individuals and families.

Prerequisites: HGEN 701.

HGEN 703 - Approaches to Ethical Challenges in Genetic Counseling (1 Credit)

Seminar in bioethical principles and their application to case management and genetic counseling. Includes lecture, case presentation, and discussion.

Prerequisites: HGEN 701.

HGEN 704 - The Genetic Counseling Process (3 Credits)

Introduction to counseling skills utilized in genetic counseling via reading, discussion, clinical observation, and role play.

Corequisite: HGEN 701.

HGEN 705 - Clinical Skills Seminar (1 Credit)

Intensive skill development focused on practical aspects of patient care for clinical rotation preparation.

HGEN 710 - Genetic Counseling Methods (3 Credits)

An integration of the student's theoretical background and clinical experiences with focus on the development of clinical skills. Format includes case presentation and discussion.

Prerequisites: HGEN 702

HGEN 715 - Contemporary Issues in Genetic Counseling (1 Credit)

Discussion forum targeted at critical evaluation of medical genetics literature and examination of current issues facing the genetic counseling profession. May be repeated for up to 4 credit hours.

HGEN 720 - Medical Genetics (4 Credits)

A study of the clinical aspects of human genetics with focus on single gene, chromosomal, and multifactorial genetic disease; the underlying molecular and biochemical principles; and determination of genetic risk.

HGEN 722 - Human and Medical Genetics (3 Credits)

Principles of genetics as they apply to medicine and basic concepts needed to understand human genetics. Current knowledge and essential areas of research in human and medical genetics.

Prerequisites: BIOL 302 and BIOL 303 or equivalent.

HGEN 725 - Human Developmental Biology I (4 Credits)

The process of normal human development and basic physiological/anatomical processes of organ systems including embryo, craniofacial, nervous, respiratory, musculoskeletal, and the integumentary systems. Clinical significance and etiologies of human malformations.

HGEN 726 - Human Developmental Biology II (4 Credits)

Systems covered include cardiac, vascular, and urogenital. Additional topics include clinical correlates, ultrasound, labod and delivery, infancy, childhood, and adolescence.

HGEN 730 - Advanced Medical Genetics I (3 Credits)

A comprehensive seminar series taught by clinical geneticists, genetic counselors, and health care practitioners. Topics include a broad range of medical conditions with underlying genetic etiologies, genetic testing methodologies used to diagnose these conditions and therapies/treatments currently available for medical management of these conditions.

Prerequisites: C or better in HGEN 720.

HGEN 731 - Advanced Medical Genetics II (3 Credits)

A comprehensive seminar series taught by clinical geneticists, genetic counselors, and health care practitioners. Topics include a broad range of medical conditions with underlying genetic etiologies, genetic testing methodologies used to diagnose these conditions and therapies/treatments currently available for medical management of these conditions.

Prerequisites: C or better in HGEN 730.

HGEN 735 - Cancer Genetics and Genetic Counseling (3 Credits)

Overview of medical oncology with an emphasis on familial and hereditary cancer. Includes didactic lectures, oral and written assignments.

Prerequisites: HGEN 720.

HGEN 750 - Summer Clinical Rotation (2 Credits)

Clinical placement in a regional genetic center under direct supervision of geneticist/genetic counselor. Allows opportunity for development of genetic counseling skills as students begin transition from theory to practice.

Prerequisites: HGEN 702.

HGEN 760 - Clinical Rotation I (3 Credits)

Two days per week of clinical placement under direct supervision of geneticist/genetic counselor for experience in prenatal, pediatric, and disease-specific clinics.

Prerequisites: HGEN 702.

HGEN 761 - Clinical Rotation II (3 Credits)

Two days per week of clinical placement under direct supervision of geneticist/genetic counselor for experience in prenatal, pediatric, and disease-specific clinics.

Prerequisites: HGEN 702.

HGEN 799 - Thesis Preparation (1-6 Credits)