

Genetic Counseling

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Courses

Visit online course listings to view offerings for M65 Peds.

M65 Peds 501 Introduction to Genetic Counseling I

This seminar provides an overview of genetic counseling and health care, and it discusses how individual differences can affect health care choices and belief systems. Students will become familiar with the process of genetic counseling, and they will build an awareness of related health professions, the health care system, and important terminology. Attendance and active participation are expected and required. Course activities will include interactive lectures, class discussions, class member presentations, guest presentations, and outside reading. This course is open to students in the Program in Genetic Counseling. Admittance may be offered to other students by request.

Credit 4 units.

M65 Peds 503 Laboratory Genetic Counseling

This course is designed for genetic counseling students, and it focuses on a variety of areas related to genetic counseling in the laboratory. Students will become familiar with various laboratory testing methodologies, data interpretation, and report writing in addition to professional and regulatory scenarios encountered in the lab. Attendance and active participation are expected and required. The course will consist of lectures, class discussions, hands-on demonstrations and tutorials, laboratory tours, and written materials. Some travel will be required. This course is open to students in the Master's in Genetic Counseling Program. Admittance may be offered to other students by request.

Credit 3 units.

M65 Peds 504 Genetic Counseling Journal Club

This journal club is a monthly, two-hour discussion of a relevant topic in clinical genetics. Research articles are selected from the literature and presented by attendees (one article per attendee). Summaries of the articles include a critical appraisal of the study and its methodology and results; the potential implications of the results for clinical practice (if any); the limitations of the conclusions that can be drawn from the study; and any biases or conflicts of interest that could have affected the study results. This course is open to students in the Master's Program in Genetic Counseling. Admittance may be offered to other students by request.

Credit 1 unit.

M65 Peds 505 Introduction to Genetic Counseling II

This course is a seminar focusing on preparing students for their clinical rotations and learning and practicing basic counseling skills. Attendance and active participation is expected and required. Course activities will include interactive lectures, class discussions, class member presentations, guest presentations, and outside reading. This course is open to students in the Master's in Program in Genetic Counseling. Admittance may be offered to other students by request. Prerequisite for this course is Introduction to Genetic Counseling I.

Credit 4 units.

M65 Peds 507 Genetic Counseling Research Methods and Ethics

This course will provide the foundation for the development and execution of the research project required for successful completion of the Master's of Science in Genetic Counseling degree. Through a series of interactive lectures, class discussions, student presentations, guest presentations, and outside reading, students will learn about common genetic counseling-relevant research methods; areas of active genetic counseling research on both a local and national level; and ethical guidelines for the conduct of responsible human subjects research. By the end of the course, students will select a topic for their research project and submit a research proposal. Students will register for Research Project I, II, and III to complete their research projects with faculty mentorship and peer support. This course is open to graduate students at Washington University School of Medicine. Prerequisites for this course are admission into the WUSM Graduate Program in Genetic Counseling or special permission from the instructor.

Credit 3 units.

M65 Peds 510 Clinical Genetics & Genomics I

This course is a seminar focusing on the fundamentals of clinical genetics and genomics. Attendance and active participation are expected and required. Course activities will include interactive lectures, class discussion, and class member presentations. This course is open to students in the Master's Program in Genetic Counseling. Admittance may be offered to other students by request.

M65 Peds 601 Advanced Genetic Counseling I

This course is a seminar focusing on starting to build advanced genetic counseling skills. Students will become familiar with unique aspects of various genetic counseling specialties, with a focus on prenatal genetics. Students will also learn about counseling theories, psychosocial assessment, psychosocial counseling techniques, and professional development skills. Attendance and active participation are expected and required.

Credit 4 units.

M65 Peds 602 Research Project II

The primary objective of this course series is to ensure the timely completion of student research projects. This course series provides research project scaffolding, mentorship, and opportunities for peer feedback. Research Project II is taken during the fall semester of the second year.

Credit 2 units.

M65 Peds 603 Clinical Fieldwork Rotations II

This course covers clinical fieldwork rotations. Participation as requested by supervisors is required. Clinical Fieldwork Rotations II involves two 14-day clinical rotations during the fall semester of the second year. Students who complete this course successfully will be able to demonstrate management of a genetic counseling case from contracting to follow-up and successfully use psychosocial counseling skills with patients.

Credit 3 units.

M65 Peds 604 Teratology

This course is a weekly seminar focusing on human teratogens. Students will become familiar with the mechanisms by which exposures affect human development, learn about known and potential teratogens, and understand the methods by which exposures are studied to understand their potential effects. Finally, students will learn how to incorporate data available in the medical literature and databases to provide information about teratogens to patients and providers. Attendance and active participation is expected and required. Course activities will include interactive lectures, class discussions, class member presentations, guest presentations, and

outside reading. This course is open to students in the Master's Program in Genetic Counseling. Admittance may be offered to other students by request. Prerequisites for this course are Human Embryology (taken online via University of Cincinnati during the first year of study).
Credit 2 units.

Elective Course (to be approved by Program Director)

M65 Peds 605 Advanced Genetic Counseling II

This course is a seminar focusing on building and honing advanced genetic counseling skills. Students will learn about complex issues such as family dynamics, crisis intervention, and implicit biases and use this knowledge to increase their psychosocial assessment and counseling skills. This course will also help prepare students for graduation with a focus on ABGC Board Examination readiness and learning how to use self-care techniques to assist with stress management. Course activities will include interactive lectures, class discussions, class member presentations, guest presentations, and outside reading. This course is open to students in the Program in Genetic Counseling. Admittance may be offered to other students by request. Prerequisite for this course is Advanced Genetic Counseling I (M65.601).
Credit 4 units.

M65 Peds 606 Clinical Fieldwork Rotations III

This course covers clinical fieldwork rotations. Participation as requested by supervisors is required. This includes two 14-day clinical rotations during the spring semester of the second year. This course is open to students in the Master's Program in Genetic Counseling. Prerequisites for this course are successful completion of Clinical Fieldwork Rotations I and II (M65.509 and M65.603).
Credit 3 units.

M65 Peds 607 Research Project III

The primary objective of the course series is to ensure the timely completion of student research projects. This course series provides research project scaffolding, mentorship, and opportunities for peer feedback. Research Project III is taken during the spring semester of the second year. This course is open to students in the Master's Program in Genetic Counseling.
Credit 2 units.

L41 Biol 5487 Genetics and Genomics of Disease

The course will cover the use of genomic and genetic information in the diagnosis and treatment of disease, with an emphasis on current practice and existing gaps to be filled to achieve precision medicine. Areas of discussion include: bioinformatics methods; assessment of pathogenicity; use and curation of disease variant databases; discovery of incidental findings; genomics applications in Mendelian disease, complex traits, cancer, pharmacogenomics, and infectious disease; design of clinical trials with genetic data; ethical and policy issues. Prerequisites: Genomics (Bio 5488), Advanced Genetics (Bio 5491), or Fundamentals of Mammalian Genetics (Bio 5285) or equivalent (permission from instructor)
Credit 2 units.

Human Embryology (online course via University of Cincinnati)

This course helps students understand normal human development and to use this knowledge to explain the anatomy of the newborn and adult. This course also provides a basis for explaining the process of and possible cures for developmental anomalies. Finally, this course provides an introduction to the treatment of patients with congenital anomalies as well as counseling options for the families of affected individuals.
