

HEALTH CARE GENETICS (MS)

Recent milestones in genome-based technologies and genetic research have realized novel approaches to clinical diagnostic testing, health promotion, and individualized health care. The Department of Allied Health Sciences, under the umbrella of the College of Agriculture, Health and Natural Resources and the Institute for Systems Genomics, offers an innovative Professional Science Master's Degree in Health Care Genetics.

A Professional Science Master's Degree in Health Care Genetics is a science degree "plus" experiential and professional development training designed to increase knowledge and prepare leaders in health care genetics who translate discoveries in genetic sciences to products, policies, and practices. A Professional Science Master's Degree is an excellent option for professionals allowing them to pursue cutting-edge, relevant training and excellence in science without a Ph.D., while simultaneously developing highly-valued workplace skills.

Requirements

The successful graduate student will have established a three-faculty member Advisory Committee, completed a minimum of at least 33-credits and demonstrated passing performance on an exit examination. The typical plan of study includes 17 credits of conceptual coursework, eight credits of practical coursework (laboratory or research experience) and eight credits of professional master's cohort courses, including an internship. Didactic, practical and professional cohort courses are selected from a menu of classes in consultation with the students' academic advisor and advisory committee. The plan of study will be designed and individualized based on a student's prior experience, career goals and those needed to gain mastery of the body of knowledge of the field. Coursework is selected to assure students can apply knowledge of genetic principles and genomic technologies to improve quality of health-care through the diagnosis, screening, intervention or prevention of disease and the maintenance of health. Laboratory training provides hands-on experience and case analyses in basic molecular biology techniques, chromosome testing, and next generation technologies. Skills development in scientific communication, ethical considerations, laboratory regulations, literature appraisal, and leadership assures graduates are effective, productive, and compassionate professionals. There is no specific required sequence of courses, unless a course has a specific pre-requisite course indicated in the course description. The Program may be completed on a part-time basis, does not include required summer components with the exception of directed study/internship that may be scheduled during the summer months. The final requirement for the Professional Science Master's Degree is passing performance on an exit exam, the format of which may include, but is not limited to, a written and/or oral scholarly piece of work. The exit exam timing and format are determined and designed by the Advisory Committee and internship supervisory personnel to reinforce the discipline-specific competency and provide an evaluation tool for relevant problem-solving abilities.