This program is operated by the Clinical and Translational Science Institute (CTSI) of Southeast Wisconsin. The mission of the CTSI is to develop an integrated, shared home for clinical and translational research and to establish a borderless, collaborative, and investigator/ community/patient- friendly, research environment. The CTS Certificate degree program fits with the CTSI's strategic goals of providing quality education and training to cultivate the next generation of clinical and translational researchers.

In addition to the general Graduate School admission requirements, this program has an additional specific requirement.

Potential students must apply by July 1st for Fall term enrollment.

3 credits.

This course examines public health data and epidemiological concepts, including foundations of epidemiology, practical applications of public health data and epidemiology, core measures in public health, descriptive epidemiology, sources of data, study designs and data analysis, communicating data, informatics, disease transmission and prevention, morbidity and mortality, screening tests, infectious disease causation, environmental health, and social, behavioral, and psychosocial epidemiology. The course emphasizes practical application of concepts and skills learned related to accessing, analyzing, and communicating public health data. The course provides the student with an understanding of the distribution and determinants of health and disease in population groups. The course provides the foundation for many other courses in the MPH program.

3 credits.

Recommended: 18203 Public Health Administration

This course covers the central concepts of community health assessment and improvement. Students will review public health concepts from a public health systems and practice perspective. The course will focus on public health essential services 1 and 2. Students will obtain an understanding of the public health system, community health assessment and the health improvement process using selected frameworks. The course will focus in-depth on learning about the Mobilizing for Action through Planning and Partnerships (MAPP) frameworks and application of selected components to course projects. In addition, this course will provide the foundation for future community health planning and evaluation courses by building on the content of the public health administration course using a public health practice perspective.

3 credits.

Emphasis Track suggested for: Community Based Science

The course is an introduction to health disparities. By the end of the course, the student will be able to understand the relationship between inequities in social determinants of health and health outcomes in various populations. Coursework will include weekly readings from one textbook on multicultural medicine and health disparities as well as peer-reviewed articles to demonstrate the concepts in real- world experiences. Weekly classes will include discussion of the readings. Course projects will be assigned and are designed to allow practice of critically reading and appraising the literature related to applied health disparities research and also to understand the theoretical bases for health equity research.

3 credits.

This course covers the central concepts of community health assessment and improvement. Students will review public health concepts from a public health systems and practice perspective. The course will focus on public health essential services 1 and 2. Students will obtain an understanding of the public health system, community health assessment and the health improvement process using selected frameworks. The course will focus in-depth on learning about the Mobilizing for Action through Planning and Partnerships (MAPP) frameworks and application of selected components to course projects. In addition, this course will provide the foundation for future community health planning and evaluation courses by building on the content of the public health administration course using a public

. 3 credits.

Emphasis Track suggested for: Translational Science

The primary goal of this course is to teach students how to develop a research program to ask relevant genetic questions in the clinical setting utilizing the molecular genetics toolbox. To this end, students will be provided with background in molecular genetics strategies and study designs as well as an understanding of common genetics questions emanating from the clinic so that they will be better able to make connections between bench and bedside. In addition, they will be challenged to think creatively and through a translational focus during course-long case studies and group projects.

3 credits.

Emphasis Track suggested for: Population Science Track

The course is an introduction to dissemination and implementation and science research methods both theoretical and applied. By the end of the course the student will be able to understand the science of dissemination and implementation and applied methods for dissemination and implementation. Coursework will include weekly reading of peer-reviewed manuscripts and one introductory textbook on dissemination and implementation science. Weekly classes will include discussion of reading and course projects are designed to allow practice of critically reading and planning implementation research.

. 3 credits.

Introduction to Precision Medicine offers 10 applied learning sessions led by directors of PM Education courses. Students initiate a professional development plan and write and present reports explaining PM concepts, demonstrating research in practice, and judging the validity of PM information.

. 3 credits.

Prerequisite: 42100 Introduction to Precision Medicine

Medical Genetics, Undiagnosed and Rare Diseases allows students examine the application of genomics to core clinical systems and applying that knowledge to personalized management of patients. Experts in their respective fields will guest lecture in several sessions.