MEDICAL COLLEGE OF WISCONSIN

PRECISION MEDICINE EDUCATION PROGRAM

PRECISION MEDICINE MS DEGREE &

CERTIFICATE FALL 2023 COURSE SCHEDULE

Monday 6:30-8:30 pm	Tuesday 6:00-8:00 pm	Wednesday 6:00-8:00 pm	Thursday 6:00-8:00 pm
PRME42100 **Introduction to Precision Medicine** ***Virtual*** ***(3 credits)*** ***John Meurer, MD***		**PRME 42185** **Cancer Precision Medicine** ***Virtual*** ***(3 credits)*** ***Honey Reddi , PhD & Ben George, MD***	**PRME 42170** **Medical Genetics, Undiagnosed and Rare Diseases** ***Virtual*** ***(3 credits)*** ***Donald Basel, MD, James Verbsky, MD, & Michael Muriello, MD***

PRECISION MEDICINE MS DEGREE & CERTIFICATE

FALL 2023 COURSE DESCRIPTIONS

Introduction to Precision Medicine (Fall)*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.

Cancer Precision Medicine (Fall)*3 credits*
This course provides an overview of the molecular basis of cancer, the role of germline and somatic alter-ations in the development and progression of cancer and the various precision assay methodologies uti-lized in cancer diagnosis, prognostication and treatment.

Medical Genetics, Undiagnosed, and Rare Diseases (Fall)*3 credits*
This course allows students to examine the application of genomics to core clinical systems and to apply that knowledge to personalized management of patients. Experts in their respective fields will guest lec-ture in several sessions.

MEDICAL COLLEGE OF WISCONSIN

PRECISION MEDICINE EDUCATION PROGRAM

PRECISION MEDICINE MS DEGREE &

CERTIFICATE Spring 2024 COURSE SCHEDULE

Monday 6:30-8:30 pm	Tuesday 6:00-8:00 pm	Wednesday 6:00-8:00 pm	Thursday 6:00-8:00 pm
PRME42100 **Introduction to Precision Medicine** ***Virtual*** ***(3 credits)*** ***John Meurer, MD***	**PRME 42175** **Pharmacogenomics for Precision Medicine** ***Virtual*** ***(3 credits)*** ***Bradley Stockard, PharmD, PhD, George MacKinnon III, PhD, Mahfoud Assem, PharmD, Carolyn Oxencis, PharmD, & Ulrich Broeckel, MD***	**PRME 42185** **Laboratory Genetics & Genomics** ***Virtual*** ***(3 credits)*** ***Honey Reddi, PhD***	**PRME 42170** **Epigenomics for Precision Medicine** ***Virtual*** ***(3 credits)*** ***Raul Urrutia, MD, & Gwen Lomberk, PhD***

Begin An Application: https://admissions.mcw.edu/apply

Visit Our Website: mcw.edu/precision-medicine

Questions? Contact Us:

Kellie LeGrave l Education Program Coordinator III

klegrave@mcw.edu

MCW GRADUATE SCHOOL

PRECISION MEDICINE MS DEGREE & CERTIFICATE

SPRING 2024 COURSE DESCRIPTIONS

Introduction to Precision Medicine (Spring) ***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.

Pharmacogenomics (Spring) ***3 credits***

This course will give participants a broad perspective on the emergence of clinical and applied pharmacogenomics (PGx) and provide them with insight into its growing importance in major clinical therapeutic areas. Participants will gain an understanding of how genetic differences between individuals can impact the prescription and outcomes of drug therapy. The course will also help participants to understand how individualization of drug therapy based on a person's genetic makeup can optimize the effectiveness of medications while reducing adverse effects.

Laboratory Genetics and Genomics (Spring) ***3 credits***

This course discusses the principles of laboratory genetics and genomics and its application in identifying genetic causations for disease.

Epigenomics (Spring) ***3 credits***

This course is designed to introduce students to Epigenetics and Epigenomics, an important foundation of modern medicine. Epigenomics refers to the inheritance of traits independent of the coding capacity of the DNA and is highly influenced by the environment. In this course, students will discuss molecular mechanisms underlying epigenetic events, the tools for the design and execution of research in this disci-pline, how to generate and analyze epigenomic data, and the application of Epigenomics to diagnostics, prognostics, and treatments.