Foundations of Personalized Health Care DRAFT Syllabus

Course number: MD ID 7250 / MDCRC 6150 / MDCRC 615
Credit hours: 2
Semester: Fall 2024
Day: Tuesdays
Time: 4:15 pm – 6:15 pm
Room: Zoom!

Format: To accommodate the needs of speakers and student schedules, this course will most often be taught virtually. Some speakers insist on in-person meeting and we will accommodate them.

Join recurring Zoom Meeting: insert new Zoom information

Course Overview. This course provides students a broad survey of topics pertaining to the theme of personalized health care (PHC). Different researchers and health care practitioners will lecture each week (or recorded podcasts, documentaries, or lectures will be provided for you for a flipped classroom discussion experience), providing exposure to topics pertaining to PHC currently being explored at the University of Utah and beyond. For students who would like to pursue independent research or the Personalized Medicine Certificate, this will provide opportunities to connect with researchers and explore potential opportunities for research projects. This course may also be taken independently of the Personalized Medicine Certificate.

The scheduling of this course is meant to complement the end of SCoPE: Skills, Community, and Professional Exploration and the course structure of Essentials 1.1.

Classes meet: Tuesday, September 24th – Tuesday, November 26th. (10 weeks)

Final paper due: December 17th

Grading. Students will receive a grade at the end of the semester. This grade will be based on class attendance and participation (35%), weekly discussion posts (35%), and one longer written assignments (30%). Students in MDCRC 6150 will receive a letter grade at the end of the semester. MD ID 7250 students will receive a pass or fail at the end of the semester.

Sample course schedule from prior years, lecturers will vary and depend on availability. Classes will often be split between two lecturers on a similar theme:

Week 1	Health & Genetics Literacy and Communicating Complicated & Controversial Health Information to a Non-Technical Audience	Kimberly Kaphingst, Nicholas Rupp
Week 2	Tailoring Telemedicine for Maternal-Fetal Care	Erin Clark, OBGyn, Associate Professor and Division Chief of Maternal-Fetal Medicine and Program Director of the Maternal-Fetal Medicine Fellowship
Week 3	Whole Genome Sequencing in the Neonatal Intensive Care Unit	Luca Brunelli, MD, PhD; Sabrina Malone Jenkins, MD; Rachel Palmquist and Josh Bonkowsky, MD
Week 4	Personalized Pediatric Cancer Care	Luke Maese, D.O. and former patient family
Week 5	Overcoming Obstacles to Patient Data Sharing and Rights of Access	Deven McGraw, Chief Regulatory Officer of Ciitzen
Week 6	Genes vs. Environments: How does the Utah Population Database inform us about health disparities?	Heidi Hanson, PhD, Assistant Director of Research at the Utah Population Database Daniel Mendoza, PhD, Departments of City & Metropolitan Planning and Atmospheric Sciences
Week 7	How Will Artificial Intelligence and Machine Learning Inform Personalized Medicine? (aka Big Data screening for n of 1 treatments)	Peter McLean, Ph.D. Director, Data Science Recursion Pharmaceuticals
Week 8	Artificial Intelligence Part II: Machine Learning Applied to Clinical Data	Brian Bucher, M.D.
Week 9	Re-imagining the Electronic Health Record	Kensaku Kawamoto, M.D., Ph.D., M.H.S., Associate Chief Medical Information Officer

		Director, Knowledge Management and Mobilization Vice Chair for Clinical Informatics, Department of Biomedical Informatics
Week 10	Genetics, Ancestry, Ethnicity, and Race	online materials from The National Human Genome Research Institute
Week 11	Emergency Use Authorizations and Bringing New Molecular Diagnostic Tests to Clinical Practice	Dave Henderson, PhD Associate Director of Clinical Affairs BioFire Diagnostics
Week 12	Genetics Education and Its Impact on Attitudes on Race	Dr. Brian Donovan, BSCS Science Learning