Advance Your Career Through WashU Medicine's Graduate-Level Courses

The Master of Science programs in Applied Health Behavior Research (AHBR), Biostatistics, and Biomedical Informatics on the WashU Medicine campus are your gateway to unlocking incredible career opportunities. These programs provide powerful tools to help you elevate your professional skills, enhance job fulfillment, and achieve career goals in groundbreaking research. By gaining advanced skills and knowledge through our programs, you can contribute even more effectively to WashU research initiatives.

The following spring courses are open to WashU employees for enrollment as a non-degree seeking student and are eligible for the HR Tuition Benefit. All courses are held on the Medical Campus unless noted.

Applied Health Behavior Research:

Title: Introduction to R Statistical Software for Health Research
Dates: March 12, 19, 26, April 2, 9
This 1 credit hour course will detail the basic structure and function of R statistical computing, a popular open-source software heavily used in the field of health and medical research. The course will begin with installing and guiding students through the basic commands and syntax of R and conclude with students creating a completed Table 1. This course offers an excellent opportunity for both students with little experience in descriptive statistics where we will cover common bivariate tests (e.g., t-test, chi-square, non-parametric, paired) as well as students with a higher understanding of statistical testing who are looking for resources surrounding statistical computing and software. This course also serves to broaden the skills of those already familiar with other software such as SAS, SPSS, or MATLAB.

Title: Project Management in Clinical and Community Settings
This course trains students in the day-to-day management of research projects and/or health behavior programs in clinical and community settings, including a review of ethics, data collection and management. Students develop skills for managing and coordinating all aspects of health behavior projects, including recruitment and retention of participants, developing and maintaining various databases for study/program tracking and analysis, writing reports, managing a project team, and using basic statistical tools for project reporting. Successful completion of this course enables students to better manage health-related studies and programs.

Title: Basics of Data Visualization and Presentation
Dates: February 5, 12, 19, 26, March 5
This course presents best practices and principles for communicating data to diverse audiences and provides practical application through the creation and presentation of data visuals. The course work is primarily completed in Microsoft Excel and Microsoft Power Point. Students will learn how to create effective visuals for academic and non-academic presentation. Skills and techniques for developing visuals will be applied within course assignments. Students will have the opportunity to practice orally presenting the visuals they create as part of a final class presentation assignment.

Institute for Informatics, Data Science and Biostatistics:

Title: The Electronic Health Record
The electronic health record (EHR) has become a central technology for the provision of clinical care. This three credit hour course will use the EHR as a reference point to explore key areas in clinical informatics, including history, applications and policy.

Title: Introduction to Biomedical Data Science II
Building upon the fundamental principles of informatics tools and data analysis taught in Biomedical Data Science I (M18-5304), this three credit hour course provides students with more advanced methods in the areas of biomedical computing, including data analysis, machine learning, deep learning models, natural language processing, deployment of data analysis models on supercomputers, and development of web apps. Both theory and coding applications and practices will be introduced for usage in the space of genomics, imaging, and medical records data analysis to help students apply learned computational tools and models. Students with a computer science background or relevant experience are encouraged to explore this advanced course. Those who have not completed the prerequisites may seek course director approval for registration.

Classes begin the week of January 12th unless noted.

For more course information, visit the Class Schedule Search website and filter by term and school. Contact Giulina Sertl (gsertl@wustl.edu) with questions about the courses and for information on how to register.

WashU Medicine