Biomedical and Translational Science (BATS)

Courses

BATS 209A. Introduction to Medical Statistics. 4 Units.
Provides understanding of medical statistics for clinicians and clinical researchers to read and interpret literature.

BATS 209B. Introduction to Medical Statistics II. 4 Units.
Provides sufficient understanding of medical statistics to read and interpret medical literature critically, identify appropriate statistics for basic research designs used in medicine, and discriminate between appropriate and inappropriate statistical applications for common research designs.

Prerequisite: BATS 209A

BATS 210A. Introduction to Clinical Epidemiology. 4 Units.
Introduces principles and practice of clinical epidemiology and the population-based approach to health and disease.

Prerequisite: BATS 209A or STATS 250

BATS 232. Design and Analysis of Clinical Trials. 4 Units.
Presents history, organization and planning, rationale for methods, limits, and ethics in conducting clinical trials.

Prerequisite: BATS 209A or STATS 250

BATS 245A. Comparative Effectiveness Research I. 4 Units.
Two-part course designed to provide a comprehensive overview of comparative effectiveness research (CER) with in-depth methodologic clinical practice and policy/dissemination issues related to the conduct, interpretation, and clinical applications of CER.

Prerequisite: BATS 245A

BATS 245B. Comparative Effectiveness Research II. 4 Units.
Two-part course designed to provide a comprehensive overview of comparative effectiveness research (CER) with in-depth methodologic clinical practice and policy/dissemination issues related to the conduct, interpretation, and clinical applications of CER.

Prerequisite: BATS 245A

BATS 247. Measurement Science, Outcomes Research and Advanced Applied Methods. 4 Units.
Further the understanding of methodologic issues involved in the conduct of comparative effectiveness research (CER). Topics: risk adjustment, balancing observational study designs, use of outcomes from multiple data sources, innovations clinical trial designs, the conduct of meta-analysis, and psychometric methods.

BATS 251. Research in Quality and Safety. 4 Units.
Introduces the principles and practice of quality of care, patient safety and patient experience research, along with major national and statewide policy and legislative initiatives related to quality of care and patient safety.

BATS 253. Disparities in Health and Health Care. 4 Units.
Review all aspects of culture that influence health status, development of public health policy, and management and practice of health care. Explores how race and ethnicity affect health and health care, including health care services and policies governing these services.

BATS 255. Health Politics and Policy. 4 Units.
Offers political and analytical insights into understanding the U.S. health policymaking and developing strategies that influence health policy outcomes.

BATS 257. Laboratory in Big Data Analysis for Health Services and Clinical Researchers. 4 Units.
Introduces quantitative research methods, with an emphasis on large surveys and administrative health data sets. Presents the advantages and disadvantages of these data sources and the iterative process of formulating research questions and identifying data sources to answer these questions.

Prerequisite: BATS 209A

Restriction: Graduate students only. Biomedical/Translational Sci Majors only.

BATS 280. Biomedical and Translational Science Seminar. 2 Units.
Students present their current research or a topic of interest and are exposed to diverse projects in the biomedical and translational science arena.

Repeatability: May be repeated for credit unlimited times.
BATS 295. Master’s Thesis Research and Writing. 2-12 Units.
Master’s thesis research and writing with Biomedical and Translational Science faculty.

Repeatability: May be repeated for credit unlimited times.

BATS 296. Ethics in Clinical Research. 4 Units.
Covers major frameworks and concepts of ethics in public health research as well as human subject protection issues.

BATS 299. Independent Directed Research. 2-12 Units.
Independent research with Biomedical and Translational Science faculty.

Repeatability: May be repeated for credit unlimited times.