HEALTH RESEARCH (HR)

HR 5101. Independent Study in Health Services Research.
An in-depth study of a single topic or related problem solved through health services research. The course may be repeated once if the topic studied is different.
about Independent Study in Health Services Research
1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Independent Study in Health Services Research

HR 5191. Field Experience and Thesis Orientation.
This course will prepare students for the field experience or thesis experience as well as the comprehensive exams qualifying students for these experiences.
about Field Experience and Thesis Orientation
1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit
about Field Experience and Thesis Orientation

HR 5199B. Thesis.
This course represents a student’s continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
about Thesis
1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit
about Thesis

HR 5299B. Thesis.
This course represents a student’s continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.
about Thesis
2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit
about Thesis

HR 5301. Independent Study in Health Services Research.
An in-depth study of a single topic or related problem solved through health services research. The course may be repeated once if the topic studied is different.
about Independent Study in Health Services Research
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Independent Study in Health Services Research

HR 5311. Seminar in Health Services Research.
This course will introduce the student to some of the latest trends and issues in health services research, as well as newer analytical techniques, focusing on research applications where possible using real data and problems. This course may be repeated for credit with different area of study.
about Seminar in Health Services Research
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Dual Enrollment Permitted/Time Conflicts Permitted
Grade Mode: Standard Letter
about Seminar in Health Services Research

HR 5330. Biostatistics for Health Professionals.
An applied course addressing statistical and analytical techniques important to researchers and practitioners within the scientific and health profession communities. This course provides in depth coverage of biostatistical methods from simple ANOVA and regression, through selected multivariate techniques. This course cannot be used for degree credit. Graded on a credit (CR), no credit (PR) basis. Prerequisite: HP 3302 or equivalent.
about Biostatistics for Health Professionals
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from Graduate GPA/Leveling
Grade Mode: Leveling/Assistantships
about Biostatistics for Health Professionals

HR 5331. Research Methods in Health Services.
Quantitative and qualitative research methods are introduced to evaluate effective health services. Psychometric techniques are covered to prepare survey questionnaire, experimental design for data collection, data analysis, and interpretations. Scientific principles such as randomization and replication are illustrated for efficient decision making. Prerequisite: HP 3302 or equivalent.
about Research Methods in Health Services
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Research Methods in Health Services

HR 5333. Regression Analysis and Biostatistics.
An introduction to multivariate analysis techniques appropriate to the health sciences. Multiple statistical packages such as the Biomedical package (BMD) will be utilized. The analysis of health data using least-squares analysis for the study of multiple regression and analysis of variance will be examined. Time series analysis will be studied for its utility in forecasting needs within health agencies. Prerequisite: HR 5331 or consent of the instructor.
about Regression Analysis and Biostatistics
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Regression Analysis and Biostatistics

HR 5337. Clinical Trials and Statistical Analysis.
A survey of statistical techniques important in the analysis of biomedical data, statistical analyses related to bioassay, clinical trials, and survey research with special emphasis on mathematical modeling techniques. Confidentiality and privacy of records, safe-guarding computer data, and rights of human and animal subjects will be addressed. Prerequisite: HR 5333 or consent of instructor.
about Clinical Trials and Statistical Analysis
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Clinical Trials and Statistical Analysis
HR 5339. Advanced Multivariate Health Data Analysis.
Advanced multivariate analysis techniques are examined for their utility to the health sciences. Statistical computer packages, such as the Biomedical Statistical Package (BMD), will be used for the study of each statistical procedure. Applied to health data will be procedures such as multivariate analysis of variance, canonical correlation, factor analysis, and discriminate analysis. Prerequisite: HR 5333 or approval of instructor.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Advanced Multivariate Health Data Analysis

HR 5341. Operations Research in Health Administration.
Adaptation and application of procedures and principles of operations research to the specific needs and requirements of health service institutions. Specific attention will be given to the improvement of effectiveness and efficiency of management functions and the delivery of health services. Emphasis will be placed on techniques to optimize allocation of resources, inventory control, customer service/cost factors, and project management within health institutions. Prerequisite: HHR 5391 or HR 5331.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Operations Research in Health Administration

HR 5351. Principles of Epidemiology.
Principles of epidemiological methods are examined as they may identify factors influencing health and disease in a population. Epidemiological methods are examined for their technique of hypothesis formation, retrospective and prospective methods, and sampling problems.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Principles of Epidemiology

HR 5357. Clinical Epidemiology and Outcomes Research.
Examination of techniques and issues important to clinical epidemiology and how they can be applied to health outcome research. A study of variation in the measurement of illness to include diagnostic and screening tests; experimental design; outcome measures; patient satisfaction; and risk adjustment for severity, co-morbidity, and demographic factors.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Clinical Epidemiology and Outcomes Research

HR 5362. Bioinformatics.
Examines clinical information systems and statistical issues in the emerging field of genomics and proteomics. Topics examined include medical advances, gene mapping, database issues, ethical issues surrounding genomic research, stochastic models, dynamic programming, Markov-Chain Monte Carlo methods, neural networks, and Bayesian statistical techniques. Prerequisite: HR 5330.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Bioinformatics

HR 5363. Medical Informatics.
An examination of clinical aspects of health care information systems to include administrative systems, diagnostic systems, and patient care monitoring systems. Current challenges and future technologies will be discussed.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Medical Informatics

HR 5369. Health Information Systems.
Critical examination of concepts and theories of medical information systems and their integrated support in functional areas of health institutions, such as pharmacy, clinical laboratory, radiology, food service, wards and clinics, patient administration, patient appointment scheduling and logistics.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Health Information Systems

HR 5383. Healthcare Marketing Research.
Examination of methods for internal and external environmental analysis, including patient demographics and economic factors. Patient satisfaction surveys, institutional image analysis, competition analysis, and sources of health marketing research data will be introduced.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Healthcare Marketing Research

HR 5399A. Thesis.
This course represents a student’s initial thesis enrollment. No thesis credit is awarded until student has completed the thesis in Health Research 5399B. Graded on a credit (CR), progress (PR), no-credit (F) basis.

Grade Mode: Credit/No Credit
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Thesis

HR 5399B. Thesis.
This course represents a student’s continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.

Grade Mode: Credit/No Credit
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

about Thesis

HR 5495. Directed Study in Health Services Research.
A course where the student investigates a topic of importance to Health Services Research under the supervision of a faculty member. Topics may be selected to advance a student’s knowledge beyond that normally covered in an organized course. A significant terminal project should result from the investigation. Graded on credit (CR), no-credit (F) basis.

Grade Mode: Credit/No Credit
4 Credit Hours. 4 Lecture Contact Hours. 0 Lab Contact Hours.

about Directed Study in Health Services Research
**HR 5599B. Thesis.**
This course represents a student’s continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.

5 Credit Hours. 5 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

**HR 5640. Administrative Practicum.**
A one semester, part-time field experience which provides an orientation to the health services research organization and special projects. Designed for the student already working full-time in healthcare.

6 Credit Hours. 0 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Credit/No Credit

**HR 5840. Administrative Internship.**
A one semester, full-time field experience which provides an orientation to the organization, a rotation through health services research functions in healthcare organizations and special projects. Designed for the student with little or no prior work experience in healthcare.

8 Credit Hours. 0 Lecture Contact Hours. 40 Lab Contact Hours.

Grade Mode: Credit/No Credit

**HR 5999B. Thesis.**
This course represents a student’s continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding. Graded on a credit (CR), progress (PR), no-credit (F) basis.

9 Credit Hours. 9 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

**HR 7375. Aquatic Health Ecology and Human Disease.**
Introduction to the health consequences of human-environment interaction and aquatic pollution. Topics to include bacterial and toxic aquatic agents and their relation to human disease. Control of communicable and noninfectious diseases from water resources, and epidemiological principals important to research in waterborne human disease, will be examined.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter