

Name:

PhD Degree Plan (93 credit hours)

Student ID #:

Catalog Years 2025-2026

Courses Required Prior to Qualifying Exam	Semester/ Year	SCH	Grade
BMI 5300 Introduction to Biomedical Informatics		3	
BMI 5007 Methods in Health Data Science		3	
BMI 5310 Foundations of Biomedical Information Sciences I		3	
BMI 5311 Foundations of Biomedical Information Sciences II		3	
BMI 5352 Statistical Methods or PHM 1690 Intro to Biostatistics		3	
BMI 6319 Data Analysis for Scientific Research in Biomedical Informatics		3	
BMI 7302 Theories & Frameworks for BMI Research		3	
BMI 7303 Critical Review of BMI Literature Seminar		3	
BMI 7304 Advanced Research Design for BMI		3	
Number of Required Credits		27	

Electives	Semester/ Year	Cr	Grade
		3	
		3	
		3	
		3	
		3	
		3	
Number of Elective Credits		18	

Other Requirements	Semester/ Year	Cr	Grade
Advanced Level Statistics Course (*see advisor for course options*)		3	
BMI 7000 Preceptorship (9 hrs)		9	
BMI 7050 Research in BMI (21 hrs)		21	
BMI 7150 Research Seminar (3 hrs)		3	
BMI 7301 Grant Writing		3	
BMI 9999 Dissertation (9 hrs)		9	
Number of Required Credits		48	
		Total SCH Completed	93

Approved by:

Primary Advisor (Print Name)

Signature

Date

Student Signature

Date

Research Track Concentrations	
Bioinformatics	
BMI 5330	Introduction to Bioinformatics
BMI 5331	Foundations of Pharmacogenomics
BMI 5332	Statistical Analysis of Genomic Data
BMI 5333	Systems Medicine: Principles and Practice
BMI 5334	Biomedical Data Privacy
BMI 5351	Research Design and Evaluation in Biomedical Informatics
BMI 6331	Medical Imaging and Signal Pattern Recognition
BMI 6332	Genomics and Precision Medicine
BMI 6333	Current Topics in Genomics
BMI 6334	Deep Learning in Biomedical Informatics
BMI 6340	Health Information Visualization and Visual Analytics
Health Data Science & Artificial Intelligence	
BMI 5007	Methods in Health Data Science
BMI 5304	Advanced Database Concepts in Biomedical Informatics
BMI 5351	Research Design and Evaluation in Biomedical Informatics
BMI 5353	Biomedical Data Analysis
BMI 6306	Information and Knowledge Representation in Biomedical Informatics
BMI 6318	Big Data in Biomedical Informatics
BMI 6323	Machine Learning in Biomedical Informatics
BMI 6331	Medical Imaging and Signal Pattern Recognition
BMI 6334	Deep Learning in Biomedical Informatics
BMI 6335	Technical Foundations of Generative AI
BMI 6340	Health Information Visualization and Visual Analytics
Clinical Informatics	
BMI 5004	Introduction to Clinical Healthcare
BMI 5007	Methods in Health Data Science
BMI 5301	The U.S. Healthcare System
BMI 5313	Foundations of Electronic Health Records and Clinical Information Systems
BMI 5315	Quality and Outcome Improvement in Healthcare
BMI 5328	Systems Analysis and Project Management
BMI 5351	Research Design and Evaluation in Biomedical Informatics
BMI 5353	Biomedical Data Analysis
BMI 5354	Cognitive Engineering in Biomedical Informatics
BMI 5360	Clinical Decision Support Systems
BMI 5390	Methods in Pharmacy Informatics
BMI 5391	Synthesis Project in Pharmacy Informatics
BMI 6300	Advanced Health Information Technology
BMI 6303	Introduction to Telehealth
BMI 6315	Advanced Electronic Health Records
BMI 6316	Change Management in Health Informatics
BMI 6324	Health Information Technology Policy
BMI 6325	Assessment, Implementation, and Evaluation of AI in Healthcare
BMI 6328	Health Care Delivery in an EHR Enabled Environment
BMI 6330	Biomedical Natural Language Processing
BMI 6340	Health Information Visualization and Visual Analytics
Human Factors Engineering	
BMI 5007	Methods in Health Data Science
BMI 5302	Introduction to Human Factors in Healthcare
BMI 5303	Methods in Human Factors Engineering
BMI 5351	Research Design and Evaluation in Biomedical Informatics
BMI 5354	Cognitive Engineering in Biomedical Informatics
BMI 5360	Clinical Decision Support Systems
BMI 6301	Health Data Display
BMI 6305	Social Dynamics and Health Information
BMI 6308	Connected and Personal Health Technologies
BMI 6309	Healthcare Interface Design
BMI 6322	Distributional Semantics: Methods and Biomedical Applications
BMI 6330	Biomedical Natural Language Processing
BMI 6340	Health Information Visualization and Visual Analytics
Public Health Informatics	
BMI 5301	The U.S. Healthcare System
BMI 5315	Quality and Outcome Improvement in Healthcare
BMI 5328	Systems Analysis and Project Management
BMI 5351	Research Design and Evaluation in Biomedical Informatics
BMI 5353	Biomedical Data Analysis
BMI 5380	Principles and Foundations of Public Health Informatics
BMI 5381	Methods in Public Health Informatics
BMI 5382	Synthesis Project in Public Health Informatics
BMI 6303	Introduction to Telehealth
BMI 6324	Health Information Technology Policy
BMI 6340	Health Information Visualization and Visual Analytics