

MS/MPH Masters Degree Plan  
(40 credit hours)

Name:

Student ID #:

Catalog Year 2018-2020 v7.24.18

| SBMI Required Courses                            | Semester/Year | SCH | Grade |
|--|---------------|-----|-------|
| BMI 5300 Introduction to Biomedical Informatics* |               | 3   |       |
| BMI 5310 Foundations I*                          |               | 3   |       |
| BMI 5311 Foundations II*                         |               | 3   |       |
| BMI 5351 Research Design and Evaluation*         |               | 3   |       |
| BMI 6313 Scientific Writing*                     |               | 3   |       |
| BMI 6000 Practicum in Biomedical Informatics*    |               | 3   |       |
| <b>Number of SBMI Required Credits</b>           |               | 18  |       |

| SPH Required Courses                                     | Semester/Year | SCH | Grade |
|--|---------------|-----|-------|
| PHM 1690 Introduction to Biostatistics in Public Health* |               | 4   |       |
| PHM 2612 Epidemiology I*                                 |               | 3   |       |
| PHM 1110 Health Promotion and Behavioral Sciences in PH* |               | 3   |       |
| PHM 3715 Management and Policy Concepts in PH*           |               | 3   |       |
| PHM 2110 Public Health Ecology & the Human Environment*  |               | 3   |       |
| <b>Number of SPH Required Credits</b>                    |               | 16  |       |

*\*Required Courses - any exceptions must be pre-approved by the Associate Dean for Academic Affairs prior to course registration.*

| SBMI Electives                         | Semester/Year | Cr | Grade |
|--|---------------|----|-------|
|  |               | 3  |       |
|  |               | 3  |       |
| <b>Number of SBMI Elective Credits</b> |               | 6  |       |

The hours reflected on this degree plan are required for completion of the MS in Biomedical Informatics. Please see the SPH degree plan for additional courses required for completion of the MPH.

|                     |    |
|---------------------|----|
| Total SCH Completed | 40 |
|---------------------|----|

Approved by:

Student Signature

Date

Primary Advisor (Print Name)

Signature

Date

-Degree plans must have an original signature by both the student and advisor to be valid.

## Research Track Concentrations for 2018-2020

### Bioinformatics (18 hours)

- 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 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

### Clinical Informatics (18 hours)

- 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 5353 Biomedical Informatics Data Analysis
- BMI 5354 Cognitive Engineering in Biomedical Informatics
- BMI 5360 Clinical Decision Support Systems
- BMI 6300 Advanced Health Information Systems
- 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 6328 Health Care Delivery in an EHR Enabled Environment
- BMI 6330 Biomedical Natural Language Processing
- BMI 6340 HI Visualization and Visual Analytics

### Human Factors Engineering (18 hours)

- BMI 5007 Methods in Health Data Science
- BMI 5302 Introduction to Human Factors in Healthcare
- 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 6311 Advanced Decision Analysis
- BMI 6322 Distributional Semantics: Methods and Biomedical Applications
- BMI 6330 Biomedical Natural Language Processing
- BMI 6340 HI Visualization and Visual Analytics

### Health Data Science (18 hours)

- BMI 5007 Methods in Health Data Science
- BMI 6340 HI Visualization and Visual Analytics
- BMI 5353 Biomedical Informatics Data Analysis
- BMI 6334 Deep Learning in Biomedical Informatics
- BMI 5304 Advanced Database Concepts in Biomedical Informatics
- BMI 6306 Information and Knowledge Representation in Biomedical Informatics

- BMI 6318 Big Data in Biomedical Informatics
- BMI 6323 Machine Learning in Biomedical Informatics

### **Public Health Informatics (18 hours)**

- BMI 6340 HI Visualization and Visual Analytics
- BMI 5353 Biomedical Informatics Data Analysis
- BMI 5301 The U.S. Healthcare System
- BMI 5315 Quality and Outcome Improvement in Healthcare
- BMI 5328 Systems Analysis and Project Management
- BMI 6303 Introduction to Telehealth
- BMI 6324 Health Information Technology Policy
- 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 6317 Leadership & Entrepreneurship in Health Informatics



Basic  
Research  
Research  
Research  
Advanced  
Advanced  
Advanced  
Advanced



Basic  
Basic  
Basic  
Basic  
Basic  
Basic  
Research  
Research  
Basic  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Research



Basic  
Basic  
Research  
Basic  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Advanced  
Research



Basic  
Research  
Research  
Advanced  
Research  
Advanced

Advanced  
Advanced



Research  
Research  
Basic  
Basic  
Basic  
Advanced  
Advanced  
Basic  
Basic  
Advanced  
Advanced