Professional Science Master's in Biomedical and Health Informatics

Curriculum

### General Informatics Core – 12 hours required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLS 523</td>
<td>Database Systems I: Introduction to Databases</td>
<td>3</td>
</tr>
<tr>
<td>INLS 582</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>INLS 541</td>
<td>Information Visualization</td>
<td>3</td>
</tr>
<tr>
<td>INLS 560</td>
<td>Programming for Information Professionals</td>
<td>3</td>
</tr>
<tr>
<td>INLS 572</td>
<td>Web Development</td>
<td>1.5</td>
</tr>
<tr>
<td>INLS 573</td>
<td>Mobile Web Development</td>
<td>1.5</td>
</tr>
<tr>
<td>INLS 623</td>
<td>Database Systems II: Intermediate Databases</td>
<td>3</td>
</tr>
<tr>
<td>INLS 690-224</td>
<td>Visual Analytics</td>
<td>3</td>
</tr>
<tr>
<td>INLS 718</td>
<td>User Interface Design</td>
<td>3</td>
</tr>
<tr>
<td>INLS 760</td>
<td>Web Databases</td>
<td>3</td>
</tr>
</tbody>
</table>

### Business Skills Courses – 6 hours from the following or approved alternatives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAD 710</td>
<td>Professional Communication: Writing</td>
<td>1.5</td>
</tr>
<tr>
<td>GRAD 711</td>
<td>Professional Communication: Presenting</td>
<td>1.5</td>
</tr>
<tr>
<td>GRAD 712</td>
<td>Leadership in Science Based Organizations</td>
<td>1</td>
</tr>
<tr>
<td>GRAD 713</td>
<td>Applied Project Management; Frameworks, Principles and Techniques</td>
<td>1.5</td>
</tr>
<tr>
<td>GRAD 714</td>
<td>Introduction to Financial Accounting</td>
<td>1.5</td>
</tr>
<tr>
<td>GRAD 715</td>
<td>Building your Leadership Practice</td>
<td>0.5</td>
</tr>
<tr>
<td>GRAD 720</td>
<td>Team-based Consulting for Technology Commercialization</td>
<td>3</td>
</tr>
<tr>
<td>GRAD 725</td>
<td>Professional Science Master’s seminar series</td>
<td>1</td>
</tr>
</tbody>
</table>

### BMHI Foundations – 6 hours required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLS 725</td>
<td>Electronic Health Records</td>
<td>3</td>
</tr>
<tr>
<td>HPM 600</td>
<td>Introduction to Health Policy and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### Clinical Informatics Track Courses – 8 credits total

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 870</td>
<td>Health Care Informatics</td>
<td>3</td>
</tr>
<tr>
<td>INLS 770</td>
<td>Health Informatics Seminar</td>
<td>1</td>
</tr>
<tr>
<td>INLS 515</td>
<td>Consumer Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>NURS 874</td>
<td>Improving Quality, Safety, and Outcomes in Healthcare Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

### Public Health Informatics Track Courses – 8 credits total

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPM 620</td>
<td>Implementing Health Informatics Initiatives</td>
<td>3</td>
</tr>
<tr>
<td>EPI 795</td>
<td>Introduction to Public Health Informatics</td>
<td>1</td>
</tr>
<tr>
<td>INLS 770</td>
<td>Health Informatics Seminar</td>
<td>1</td>
</tr>
<tr>
<td>EPI 766</td>
<td>Epidemiologic Research with Healthcare Databases</td>
<td>3</td>
</tr>
<tr>
<td>EPI 750</td>
<td>Fundamentals of Public Health Surveillance</td>
<td>3</td>
</tr>
<tr>
<td>HPM 625</td>
<td>Applied Public Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HPM 760</td>
<td>Healthcare Quality and Information Management</td>
<td>3</td>
</tr>
<tr>
<td>ENVR 468</td>
<td>Advanced Functions of temporal GIS</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 613</td>
<td>Data Management in Clinical and Public Health Research</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 511</td>
<td>Introduction To Statistical Computing And Data Management</td>
<td>4</td>
</tr>
</tbody>
</table>

### Practicum - 3 credit hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRAD 989</td>
<td>Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

* Required
Professional Science Master's in Biomedical and Health Informatics

Suggested Course Sequence

Clinical Informatics Track

Fall Start

Regular Track

Fall: (11 credits)
- INLS 523 – Database Systems I (3)
- INLS 770 – Health Informatics Seminar (1)
- Core Elective (3)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 710 – Professional Communication: Writing (1.5)
- GRAD 711 – Professional Communication: Presenting (1.5)

Spring: (13 credits)
- INLS 582 – Systems Analysis and Design (3)
- INLS 770 – Health Informatics Seminar (1)
- Core Elective (3)
- GRAD 713 – Applied Project Management (1.5)
- GRAD 714 – Intro to Financial Accounting (1.5)
- INLS 725 – Electronic Health Records (3)

Summer: (1 credit)
- GRAD 989 – Practicum (1)

Fast Track

Fall: (14 credits)
- INLS 523 – Database Systems I (3)
- INLS 770 – Health Informatics Seminar (1)
- Core Elective (3)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 710 – Professional Communication: Writing (1.5)
- GRAD 711 – Professional Communication: Presenting (1.5)
- NURS 870 – Health Care Informatics (3)

Spring: (14 credits)
- INLS 582 – Systems Analysis and Design (3)
- INLS 770 – Health Informatics Seminar (1)
- Core Elective (3)
- GRAD 713 – Applied Project Management (1.5)
- GRAD 714 – Intro to Financial Accounting (1.5)
- Clinical Informatics Elective (3)
- GRAD 725 – PSM Seminar Series (1)

Summer: (9 credit)
- GRAD 989 – Practicum (3)
- INLS 725 – Electronic Health Records (3)
- HPM 600 – Intro to Health Policy and Management (3)
Professional Science Master's in Biomedical and Health Informatics

Suggested Course Sequence

Clinical Informatics Track

Spring Start

**Regular Track**

**Spring: (11 credits)**
- INLS 523 – Database Systems I (3)
- INLS 582 – Systems Analysis and Design (3)
- INLS 770 – Health Informatics Seminar (1)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 713 – Applied Project Management (1.5)
- GRAD 714 – Intro to Financial Accounting (1.5)

**Summer: (3 credits)**
- INLS 725 – Electronic Health Records (3)

**Fall: (13 credits)**
- NURS 870 – Health Care Informatics (3)
- Core Elective (3)
- GRAD 710 – Professional Communication: Writing (1.5)
- GRAD 711 – Professional Communication: Presenting (1.5)
- GRAD 989 – Practicum (1)
- HPM 600 – Intro to Health Policy and Management (3)

**Spring: (10 credits)**
- Clinical Informatics Elective (3)
- INLS 770 – Health Informatics Seminar (1)
- Core Elective (3)
- GRAD 989 – Practicum (2)
- GRAD 725 – PSM Seminar Series (1)

**Fast Track**

**Spring: (14 credits)**
- INLS 523 – Database Systems I (3)
- INLS 582 – Systems Analysis and Design (3)
- INLS 770 – Health Informatics Seminar (1)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 713 – Applied Project Management (1.5)
- GRAD 714 – Intro to Financial Accounting (1.5)
- Core Elective (3)

**Summer: (9 credits)**
- INLS 725 – Electronic Health Records (3)
- HPM 600 – Intro to Health Policy and Management (3)
- GRAD 989 – Practicum (3)

**Fall: (14 credits)**
- NURS 870 – Health Care Informatics (3)
- Core Elective (3)
- GRAD 710 – Professional Communication: Writing (1.5)
- GRAD 711 – Professional Communication: Presenting (1.5)
- INLS 770 – Health Informatics Seminar (1)
- Clinical Informatics Elective (3)
- GRAD 725 – PSM Seminar Series (1)
Professional Science Master's in Biomedical and Health Informatics

Suggested Course Sequence

Clinical Informatics Track

**Summer Start**

**Regular Track**

**Summer:** (6 credits)
- INLS 725 – Electronic Health Records (3)
- HPM 600 – Intro to Health Policy and Management (3)

**Fall:** (14 credits)
- INLS 523 – Database Systems I (3)
- INLS 770 – Health Informatics Seminar (1)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 710 – Professional Communication: Writing (1.5)
- GRAD 711 – Professional Communication: Presenting (1.5)
- NURS 870 – Health Care Informatics (3)
- Core Elective (3)

**Spring:** (14 credits)
- INLS 582 – Systems Analysis and Design (3)
- INLS 770 – Health Informatics Seminar (1)
- Clinical Informatics Elective (3)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 713 – Applied Project Management (1.5)
- GRAD 714 – Intro to Financial Accounting (1.5)
- Core Elective (3)

**Summer:** (3 credits)
- GRAD 989 – Practicum (3)

**Fast Track**

**Summer:** (9 credits)
- INLS 725 – Electronic Health Records (3)
- HPM 600 – Intro to Health Policy and Management (3)
- Core Elective (3)

**Fall:** (15 credits)
- INLS 523 – Database Systems I (3)
- INLS 770 – Health Informatics Seminar (1)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 710 – Professional Communication: Writing (1.5)
- GRAD 711 – Professional Communication: Presenting (1.5)
- NURS 870 – Health Care Informatics (3)
- Core Elective (3)
- GRAD 989 – Practicum (1)

**Spring:** (13 credits)
- INLS 582 – Systems Analysis and Design (3)
- INLS 770 – Health Informatics Seminar (1)
- Clinical Informatics Elective (3)
- GRAD 725 – PSM Seminar Series (1)
- GRAD 713 – Applied Project Management (1.5)
- GRAD 714 – Intro to Financial Accounting (1.5)
- GRAD 989 – Practicum (2)