The epidemiology concentration is designed for students seeking to acquire skills in the fundamental methods of epidemiologic investigation and prevention in populations. Concentration courses emphasize basic and advanced epidemiologic principles and their application to current problems in public health and related disciplines. Students in the epidemiology concentration are expected to use appropriate methods to plan, implement, and conduct epidemiologic research. Students are also expected to critically evaluate research methodology to assess validity and potential sources of bias. Skills in computer use and statistics acquired in the public health program are used to analyze, interpret, and disseminate the results of epidemiologic investigations. For the culminating experience, students may choose between a thesis or a comprehensive exam. Students selecting the comprehensive exam option will complete 48 semester credit hours and students selecting the thesis option will complete 51 semester credit hours. By the conclusion of the M.P.H. program, a student in the epidemiology concentration will be able to:

1. Quickly assess a public health problem using quantitative and/or qualitative data.
2. Use relevant analysis for relevant study designs.
3. Understand the natural occurrence of disease and associated risk factors.
4. Understand the importance of ethical considerations in the conduct of epidemiological studies.
5. Identify, develop, apply and modify an appropriate research approach to an epidemiological problem based on constraints and available resources.
6. Identify and develop data collection strategies for the appropriate epidemiologic approach.
7. Implement appropriate study designs to an epidemiologic problem.
8. Review epidemiologic literature critically.

### Epidemiology Curriculum (48 or 51 Semester Credit Hours)

**CORE COURSES: 15 SCH**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 5300</td>
<td>Biostatistics for Public Health I</td>
<td>3 SCH</td>
</tr>
<tr>
<td>EOHS 5300</td>
<td>Environmental Health</td>
<td>3 SCH</td>
</tr>
<tr>
<td>EPID 5300</td>
<td>Principles of Epidemiology</td>
<td>3 SCH</td>
</tr>
<tr>
<td>HMAP 5300</td>
<td>Introduction to Health Management and Policy</td>
<td>3 SCH</td>
</tr>
<tr>
<td>SABS 5300</td>
<td>Theoretical Foundations of Individual &amp; Community Health</td>
<td>3 SCH</td>
</tr>
</tbody>
</table>

**REQUIRED COURSES: 15 SCH**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 5310</td>
<td>Biostatistics for Public Health II</td>
<td>3 SCH</td>
</tr>
<tr>
<td>BIOS 5314</td>
<td>Introduction to Statistical Packages</td>
<td>3 SCH</td>
</tr>
<tr>
<td>EPID 5310</td>
<td>Intermediate Epidemiology</td>
<td>3 SCH</td>
</tr>
<tr>
<td>EPID 5312</td>
<td>Survey Methodology</td>
<td>3 SCH</td>
</tr>
<tr>
<td>EPID 5314</td>
<td>Applied Data Analysis in Epidemiology</td>
<td>3 SCH</td>
</tr>
</tbody>
</table>
**PRACTICE EXPERIENCE: 3 SCH**
EPID  5397  Public Health Practice Experience  3 SCH

**CONCENTRATION SELECTIVE COURSES: 12 SCH for Thesis Option or 15 SCH for Comprehensive Exam Option**

Choose **one** from the following courses (applied to both thesis and comprehensive exam option)

EPID  5318  Chronic Disease Epidemiology  3 SCH
EPID  5320  Infectious Disease Epidemiology  3 SCH

Choose **three** from the following courses if completing the thesis option or **four** from the following courses if completing the comprehensive exam option

- BIOS  5324  Data Management  3 SCH
- EPID  5399  Independent Study in Epidemiology  1-3 SCH
- EPID  6310  Advanced Methods in Epidemiology 1  3 SCH
- EPID  6312  Advanced Methods in Epidemiology 2  3 SCH
- EPID  6314  Experimental Methods in Epidemiology  3 SCH
- EPID  6316  Molecular Epidemiology  3 SCH
- EPID  6318  Epidemiologic Surveillance  3 SCH
- EPID  6320  Social Epidemiology  3 SCH
- EPID  6322  Nutritional Epidemiology  3 SCH
- EPID  6324  Cancer Epidemiology  3 SCH
- EPID  6326  Occupational Epidemiology  3 SCH

- Students may substitute an elective course not on this list only with prior written approval of their advisor.
- Courses not approved as substitutes will not be applied toward the degree plan.

**CULMINATING EXPERIENCE: 0-6 SCH**
EPID  5395  Thesis  6 SCH

Or

Comprehensive Exam (see details below)  0 SCH

MPH students enrolled in the thesis as part of their degree plan are required to demonstrate that they are actively working toward its completion. This requires confirmed submission of written materials and on-going consultation with committee members within the first and subsequent semesters of registering for thesis credit. It is the responsibility of the student to maintain contact with their thesis advisor and committee members to assure satisfactory progress. MPH students choosing the thesis option but not making satisfactory progress as determined by their advisor may be required to take the comprehensive exam instead of the thesis or may be required to take additional courses to assure sufficient knowledge and skills needed to continue the research project. Any action taken as a result of not meeting the above expectations is subject to the discretion of the department chair.

MPH students can use attendance at Epidemiology Seminars towards the 200 hours for the Public Health Practice Experience (EPID 5397) as follows: The practicum must include attendance at a minimum of 8 and a maximum of 16 departmental seminars. This is equivalent to a minimum of 8 and a maximum of 16 credit hours being credited towards the 200 hours of the practicum required. All students must complete at least 8 credit hours of seminars for graduation.

MPH students who take the Public Health Practice Experience (EPID 5397) must include field experience in the practicum which is comprised of 1) performing actual data collection defined as abstraction of records, coding, or medical chart review and abstraction or 2) data editing and analysis. All MPH student practicum must include some element of data collection or working with raw data.