# Biostatistics, Graduate Certificate

## Learning Outcomes

- Propose and defend good statistical design as a collaborator on a public health project.
- Promote the use of sound statistical methods to answer open questions in public health science.
- Interpret results of data analysis for public health research, policy, or practice.
- Develop computer programs for the management and analysis of datasets.

## Requirements

The graduate Certificate in Biostatistics requires a minimum of 15 s.h. of graduate credit. Students must earn a grade of at least B-minus in each certificate course and must maintain a cumulative grade-point average of at least 3.00 in order to earn the certificate. The certificate is designed for students who would like to add a formal biostatistics emphasis to their graduate programs.

The program is open to students enrolled in a University of Iowa graduate degree program outside the Department of Biostatistics. It is also open to individuals who hold graduate degrees in science disciplines or professional degrees in the health sciences and are admitted to the Graduate College as nondegree students.

The certificate requires two core courses (6 s.h.) and three electives (9 s.h.). Students should work with an advisor to plan their coursework carefully, since some certificate courses have prerequisites, require permission for enrollment, or are not offered every year. They must complete at least 6 s.h. of the required coursework after being admitted to the certificate program, and may count a maximum of 6 s.h. of certificate credit toward a degree or another certificate earned at the university. At least 6 s.h. of the certificate plan of study must be exclusively applied to the certificate.

The Certificate in Biostatistics requires the following coursework.

### Core Courses

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both of these:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOS:4120</td>
<td>Introduction to Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>BIOS:5120/STAT:5610</td>
<td>Regression Modeling and ANOVA in the Health Sciences</td>
<td>3</td>
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</tbody>
</table>

### Electives

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three of these (total of 9 s.h.):</td>
<td></td>
<td></td>
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<tr>
<td>BIOS:5130</td>
<td>Applied Categorical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS:6210</td>
<td>Applied Survival Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS:6310/STAT:6550</td>
<td>Introductory Longitudinal Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIOS:6420</td>
<td>Survey Design and Analysis</td>
<td>3</td>
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Other courses may be approved as electives by the Department of Biostatistics director of graduate studies. Contact the Department of Biostatistics for more information.

## Admission

Enrollment is limited; applicants who have completed at least one of the certificate’s required courses and whose research will be advanced by biostatistics training are given priority for admission. Visit the Certificate in Biostatistics on the department’s website for an application form.