The Certificate in Biostatistics provides students with skills in applied data analysis in the areas of public health and medicine. The coursework concentrates on developing statistical skills through the use of actual data sets and computerized statistical software packages. The certificate program will benefit students who want to strengthen their public health study with strong applied data analysis skills.

Offered by: Department of Biostatistics and Data Science

Faculty Lead: John Lefante, PhD (https://sph.tulane.edu/gbds/john-lefante-phd/)

Biostatistics Certificate Enrollment Form (https://tulane.box.com/v/gbds-certificate-enroll/)

Purpose

This certificate program provides master's level public health students with additional expertise in applied data analysis.

Eligible Students

This certificate program is designed for current MPH/MSPH/MPH&TM/MHA students who are not pursuing the MSPH Biostatistics. The certificate is a complement to degrees in other areas.

Certificate Competencies

Students who earn then the Certificate in Biostatistics will be able to:

- Formulate appropriate linear regression models and conduct simple and multiple linear regression analysis (BIOS 6040, 7060).
- Differentiate between various analysis of variance procedures and analyze data using these procedures (BIOS 6040, 7080); and
- Distinguish between procedures for analyzing discrete data and conduct logistic regression and other categorical procedures (BIOS 6040, 7150).

Number of Credits Required for Completion: 15

Requirements

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SPHL 6050</td>
<td>Biostatistics for Public Hlth</td>
<td>3</td>
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Required Courses

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOS 6040</td>
<td>Intermediate Biostatistics (fall and spring)</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 7060</td>
<td>Regression Analysis (fall and spring)</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 7080</td>
<td>Design of Experiments (spring)</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 7150</td>
<td>Categorical Data Analysis (fall)</td>
<td>3</td>
</tr>
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Select one of the following 7000-level Biostatistics Electives:

- BIOS 7220 Nonparametric Statistics (spring)
- BIOS 7250 Principles of Sampling (spring)
- BIOS 7300 Survival Data Analysis (fall)
- BIOS 7400 Clinical Trials (every other fall)

Total Credit Hours 15