BIOSTATISTICS (CERT)

Graduate Certificate in Biostatistics
Unit: School of Public Health and Information Science (http://louisville.edu/sphis/) (GH)
Department: Bioinformatics and Biostatistics (http://louisville.edu/sphis/departments/bioinformatics-biostatistics/)
Program Website (https://louisville.edu/sphis/departments/bioinformatics-biostatistics/academics/certificate-in-biostatistics/)
Academic Plan Code(s): BDSCCBSO

Program Information

This program is completed 100% online *(*http://louisville.edu/online/programs/certificate-programs/certificate-in-biostatistics/*).*

The Department of Biostatistics offers this certificate program to deliver core biostatistics instruction to a wide spectrum of the industrial workforce. Students are required to complete at least 15 credit hours of core and elective coursework. The program provides an ideal path for students and professionals seeking to enhance their data analytic and decision-making skills. In addition, individuals who are interested in the possibility of entering the MS program in Biostatistics can use this program as a stepping stone to the master's degree.

Competencies

The core competencies of the Certificate in Biostatistics program include knowledge of basic Biostatistical methods, basic knowledge of data management and statistical computing and a preliminary exposure to research design.

- Analyze moderately complex research data using statistical methods involving common linear statistical models. [C4]*
- Manage data and conduct elementary statistical computing using SAS software. [C3]*
- Critique/design basic methods for moderately complex research problems [C6]*

Demonstration of the competencies is accomplished by successful completion of all certificate curriculum activities.

* Bracketed codes represent cognitive domain levels from Bloom's Taxonomy

Faculty Advisor

On matriculation, each student is assigned a faculty advisor and is requested to meet at least once a semester (face-to-face or using a video conferencing tool) with his or her advisor. The faculty advisor works with the student to develop a program of study and serves as an academic mentor and counselor on career and employment opportunities, professional development, and opportunities beyond the certificate.

Admission Requirements

- Graduate application (https://graduate.louisville.edu/admission/apply/) submitted to the Graduate School
- Bachelor's degree or its equivalent in basic sciences, economics, psychology, or in a closely related discipline from an accredited institution. The curriculum must contain a statistics or biostatistics course at the sophomore level or higher and at least two courses in basic sciences.

- Preferred minimum GPA is 2.75 on a 4.0 scale.
- Curriculum vitae (CV)
- At least two letters of recommendation written within past twelve months, submitted as part of the application.
- Non-refundable application fee.
- Postsecondary transcripts. Transcripts from institutions outside of the United States will require a foreign credential evaluation.
- Proficiency in English language is a requirement and a key to the success in the program. English language proficiency is established by one of the following:
    - TOEFL examination score at or above 213 (computer based test) and 79 (internet based test)
    - IELTS test score of 6.5 or higher
    - Duolingo test score of 105 or higher
    - Demonstration of a degree awarded from an institution with instruction primarily in English, as formally documented by an appropriate institutional official.

Application Deadline

Fall semester – June 30 (all applicants).

Spring semester – Applications are not accepted.

Summer semester – April 1 (all applicants).

- *Only students interested in eventually pursuing the MS in Biostatistics should seek Summer admission. No Certificate courses are offered in the Summer term, only our Math Tools remedial calculus courses.*

Information contact:

Department of Biostatistics and Bioinformatics Coordinator.
Email: sphisbb@louisville.edu
Phone: (502) 852-1827

Curriculum

The curriculum calls for completing 15-16 credit hours using courses listed below.

Academic Standing

To maintain good academic standing in the Certificate in Biostatistics program, students must maintain a cumulative GPA of 3.0 or higher for all coursework in the program. A student must be in good academic standing in order to receive the degree.

Any Certificate in Biostatistics student with a program cumulative GPA below 3.0 will be placed in probationary status. Any student who remains in probationary status for two consecutive terms may be considered for dismissal from the program.

Certificate Requirements

Code	Title	Hours
Biostatistics Coursework		
PHST 680	Biostatistical Methods I	3
PHST 681	Biostatistical Methods II	3
PHST 620	Introduction to Statistical Computing	3
PHST 684	Categorical Data Analysis [1]	3
Choose one of the following:		3-4

PHST 640	Statistical Methods for Research Design in Health Sciences
or	
PHST 624 & PHST 625	Clinical Trials I: Planning and Design Clinical Trials II

Minimum Total Hours   **15-16**

If a student chooses to pursue the Master of Science (MS) in Biostatistics degree after enrolling in or completing the Biostatistics Certificate program, then all relevant coursework completed within the preceding five years with a grade of B or better may be applied towards the coursework for the MS in Biostatistics degree.

[1] Course requires the completion of PHST 680 as a prerequisite.