PROPOSED PROGRAM SUMMARY

Instituion: University of Kentucky
Program Name: Biostatistics
Degree Designation: MASTER OF SCIENCE (MS)
Degree Level : Master's

Program Description

This two-year degree in Biostatistics aims to train students in methodological skills foundational to biostatistics. The program will meet the needs of individuals who seek to work in the healthcare, government health agencies, biomedical research, or pharmaceutical industry. Jobs in these fields require advanced knowledge for the analysis of health science data. Students will benefit from experiential learning opportunities and formal training in the application of descriptive and inferential statistics specific to biomedical research, clinical and translational studies, and public health and improving the health of populations. Twenty-one course hours will come from core biostatistics courses, including three credit hour capstone course in which students will have the opportunity to learn consulting practices through experiential learning. The remaining twelve hours will be electives, with some electives from epidemiology. The program will only offer a non-thesis option (Plan B) requiring 33 hours of graduate-level coursework. The thesis option (Plan A) will not be offered.

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify
No

CIP Code: 26.1102
Credit Hours: 33
Institutional Board Approval Date: 6/16/2021
Implementation Date: 8/16/2021

Student Demand

Year 1	- 5
Year 2	- 10
Year 3	- 15
Year 4	- 20
Year 5	- 25

Market Demand

The following statement was borrowed from the University of Florida's Department of Biostatistics (One of the Benchmark Institutions identified by CPE) webpage:

The demand for trained biostatisticians continues to increase as the world becomes more dependent on predictive data and numerical reasoning, particularly related to

research in the health sciences.

On March 21, 2016, the Fortune magazine ranked the Master in Biostatistics #1 in the list of Best Graduate Degrees for Jobs in 2016 based on long-term outlook for job growth, median salaries and job satisfaction scores. The master degree in Biostatistics has a 23% projected growth in jobs by 2024; and 85% of degree-holders said they were "highly satisfied" in one of PayScale's surveys. This ranking is up from #2 in this same list in 2015 which stated:

"Those who earn a graduate degree in biostatistics, work in healthcare, biotech, and life sciences, using computer models to, for example, predict cancer growth in a cell. The degree still isn't offered by many schools but is gaining traction."

Also, according to the U.S. Bureau of Labor Statistics, improvements in statistical and mapping software will improve analysis, make epidemiological data more useful, and enhance health educators' and community health workers' ability to identify healthy habits and behaviors and good health care services that will improve health outcomes and reduce healthcare costs.

Employment Demand

	Regional	State	National
Type Of Job **Biostatistician**			
Avg. Wage	$75,233	$92,838	$80,009
# Jobs (Postings)	69	28	6615
Expected Growth	0%	36%	37%
Type Of Job **Statistician**			
Avg. Wage	$73,598	$74,126	$77,910
# Jobs (Postings)	56	20	4623
Expected Growth	0%	36%	37%

Indicate source of market demand information
Data was gathered from Burning Glass and utilizes BLS data, actual job postings over the last 12 months, and Burning Glass proprietary data models. Projections are for 2019-2028

Academic Demand
NA

Unneccessary Duplication

Similar Program(s):

Program Id	Inst code	Inst Description	Degree Designation	Program Title	Report year
4430	00199900	University of Louisville	MS	Biostatistics	2015

Comparison of Objectives/Focus/Curriculum to Similar Programs:

The proposed program is an in-person program whereas the University of Louisville's program is fully online. The curriculum for the program at the University of Louisville does not include consulting courses. The curriculum for the proposed MS requires two courses on consulting. Further Louisville's program requires a thesis as a graduation requirement and the proposed program does not.

Comparison of Student Populations:

The proposed program is face-to-face while the other program is completely online.

Access to Existing Programs:

The target population for the two degrees is different. The degree program at Louisville is fully online. The proposed MS in Biostatistics will not be a distance learning program and will offer the opportunity for in person experiential learning with biostatistical consulting embedded.

Feedback from Other Institutions:

Faculty at UofL have been contacted and have not raised any initial concerns

Cost

Projected Revenue over Next Five Years ($) : 3571005
Projected Expenses over Next Five Years ($) : 441125

Will Additional faculty be needed? No

Provide a budgetary rationale for creating this new program

The costs of implementing and running the MS in Biostatistics can be amply met with new funds generated by the program tuition income. The operational and management resources for the program will be provided by the Department of Biostatistics. The only physical resources needed is the classroom space. Majority of the courses required for the proposed MS in Biostatistics are already implemented. One of the benefits of the proposed program is that it will drive demand for current offerings and the enrollments for these courses will increase. As such the required physical resources for the program are low.