ANNUAL PROGRAM REPORT

College	Science
Department	Statistics and Biostatistics
Program	MS Biostatistics
Reporting for Academic Year	2019-2020
Last 5-Year Review	2018-2019
Next 5-Year Review	2023-2024
Department Chair	Joshua Kerr
Author of Review	Joshua Kerr
Date Submitted	01 October 2020

I. SELF-STUDY

A. Five-Year Review Planning Goals

The five-year review includes planning goals for curriculum (3.1), students (3.3), faculty (3.4), and resources (3.5).

To summarize, the curriculum plans (3.1) include:
1. Adjust our Biostatistics MS program curriculum in response to semester conversion
2. Continue offering two sections of core graduate courses and grow our graduate program
3. Develop online courses at the graduate level

The student plans (3.3) include:
1. Grow our Biostatistics MS program
2. Continue teaching schedules that accommodate working students
3. Raise funds to increase our scholarship and leadership funds

Faculty plans (3.4) include:

graduate students as TAs to teach newly developed support courses, beginning Fall 2018. Due to semester conversion, substantial changes are in place to all levels of the curriculum.

Students: Nothing to add.

Faculty: Nothing to add.

Staff: With the implementation of EO 1110, an already strained staff has had a significant increase in workload. Additional support is needed.

Resources: Our Department's programs would greatly benefit from a dedicated computer lab and/or funds so that every graduate student has his/her own laptop computer or accounts on cloud sites that would enable running and utilizing statistical software and solutions.

Assessment: The department continues to carefully monitor the assessment of its programs, proposing curricular and advising changes, as necessary.

Other: The roadmap for MS Biostatistics was, and continues to be,

B. Summary of Assessment Process

. **Instrument(s):**

We have long used the culminating experience of the Comprehensive Examination along with feedback from alumni and community industry leaders in assessing our programs. Student learning outcomes and institutional learning outcomes were previously identified and mapped to specific courses.

We implemented quantitative assessment of the results of our Comprehensive Examination by mapping all but one of the PLO's (#2) to specific course problems on the MS comprehensive exam. Rubrics were established for the outcomes and implemented.

It was decided that PLO #2 is better addressed by term projects that involve communication (either a written project or presentation that is worth considerable weight in the grading scheme of the course). BSTA 663 "Clinical Trials in the Pharmaceutical and Biomedical Industries" is used for assessment of PLO #2,

Sampling Procedure: We sample by gathering data from all students attempting to complete our capstone experience.

Sample Characteristics: All MS Biostatistics students at, or near, to the end of their program were identified.

Data Collection: The comprehensive exam is given twice a year, Fall and Spring. All tenure/tenure track faculty participate in the evaluation of student performances on this exam that are then used to evaluate the PLO's.

Data Analysis: We currently utilize Google Sheets to incorporate the rubrics that were established for the outcomes, to analyze the data.

Summary of Assessment Results

Main Findings: **Main Findings:**

Frequencies of Rubric Score for Biostatistics MS 2019-2020

Rubric Score	PLO 1	PLO 2*	PLO 3
1	0	0	0
2	0	0	1
3	2	1	1
4	1	2	2
5	7	8	6

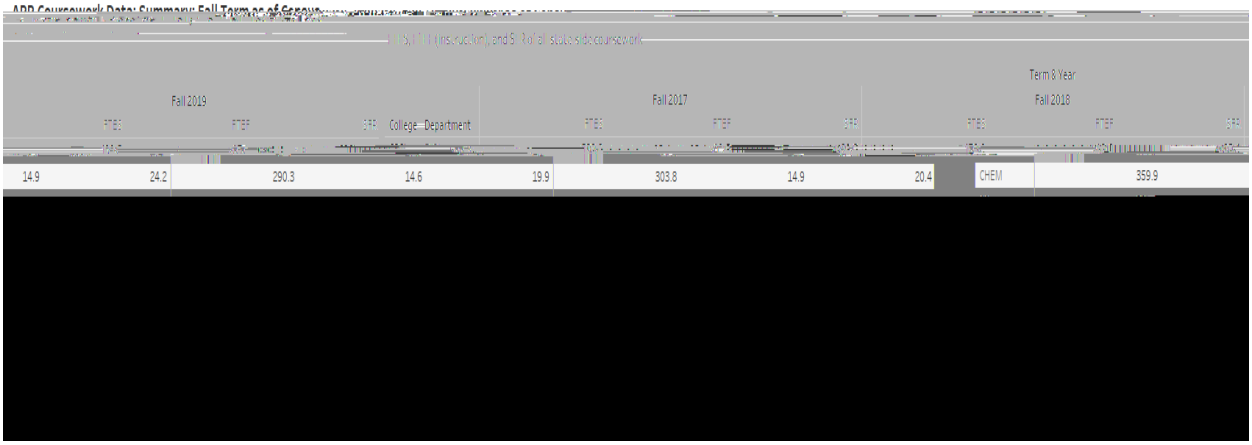
while decreasing slightly for non-

Appendix A

III A. Discussion of Trends & Reflections
Notable Trends:

Tables of enrollment for Fall 2018 are broken down by race/ethnicity and sex.

Fall 2019


Term & Year
Fall 2019
Fall 2017
Fall 2018
College_Department
14.9
24.2
290.3
14.6
19.9
303.8
14.9
20.4
CHEM
359.9