

Sabbatical Report  
Susan Herring, Ph.D.  
Department of Mathematics and Statistics  
Sonoma State University  
August 2021

The world of statistics is rapidly advancing, especially in the areas of technology, big data sets and data mining. Our current B.A., B.S. and minor in statistics were developed in 2008-09 and are out-of-date. During my sabbatical, I researched the necessary changes to update our program to include Data Science, Machine Learning and Analytics in our curriculum in order to prepare our students for the current job market and graduate school.

During my sabbatical, I researched Data Science degrees at other campuses as well as programs listed on [www.datasciencedegreeprograms.net](http://www.datasciencedegreeprograms.net). For the last year, I have been attending monthly meetings of the Northern California Data Science Coalition (NCDSC). This coalition consists of faculty from Cal State Chico, Cal State Sacramento, and Humboldt State. We have been discussing various options such as a Master's Degree in Data Science that would consist of classes taken in several different campuses in a remote format.

In addition to updating the current Statistics program and exploring options for an interdisciplinary major/minor in Data Science, I have also begun working with extended education to investigate the feasibility of a certificate in Data Science. Many working professionals would be interested in updating their skills to stay current in the job market.

I will continue working to update our degree in Statistics and/or develop an interdisciplinary Data Science degree at SSU. Our students will benefit by having the job skills and education necessary to be competitive in the current job market. They will also be well prepared for graduate school in either Data Science or Statistics.