

NORTHERN New Mexico College

Program Review Report

Program: Data Science Certificate

College: Northern New Mexico College

A self-study of the Data Science Certificate offered by the Department of Mathematics and Physical Science was completed and reviewed by the Program Review Committee in the Fall 2025 semester.

The recommendations listed below are based on the department's self-study and peer reviews. The recommended action items are listed below.

1. Revise program learning outcomes (PSLO) to use Bloom's Taxonomy verbs and use only one verb for each PSLO. Revise the data science curriculum map so that all PSLOs are assessed every three years.
2. Maintain minutes of External Advisory Committee meetings.
3. Track enrollment and student credit hours in data science courses (MATH 2300, MATH 2310/MATH 3310, MATH 2320/MATH 4320, MATH 2330/MATH 4330, CSCI 1220) each semester.
4. Since MATH 2300 Mathematics for Data Science has never been taught, consider replacing it with a course required by students majoring in Elementary Education who are pursuing a concentration in mathematics or by a data intensive course required by students majoring in Business, or even a suitable course taught by the Engineering department.
5. Increase the number of Data Science Certificate majors by 8 by Spring 2028. This can be facilitated by integrating data science courses into the AS and BS mathematics degree requirements which has already been done.
6. Track the number of students in each data science course and achieve an average of 10 students per course in the courses listed in Item 3 by Spring 2028. This may be achieved by aligning the Data Science Certificate degree requirements with courses required by BCES, Business, Education, and Engineering. Discussions with the chairs of these departments should be initiated regarding the curriculum in the Data Science Certificate. Perhaps the Bachelor of Business Administration could offer a data science concentration. In addition, AS and BS mathematics majors could be encouraged to complete the Data Science Certificate requirements while taking courses in the AS and BS mathematics degree. The creation of upper division

equivalent courses (which has been done) that can also be taught as lower division courses will help improve the average class size.

7. If the department has trouble achieving 8 Data Science Certificate majors by Spring 2028, consider offering a data science concentration in the AS and/or BS mathematics degree.
8. Develop a targeted marketing campaign in Fall 2026.
9. Engage local employers and the External Advisory Committee to promote job market alignment.

Your next program report and check-in will be scheduled in April 2027. At that time, the program will need to highlight progress made on the recommended action items. It will also identify any changes in planned actions that may have occurred because of changes to the program or its context. Use the Interim Report Template to report your progress for the upcoming review.