

Data Science



Data Science Model Policy

SECTION 1. DEFINITIONS

Be it enacted by the State of _____:

Section 1. Data Science

(1) For purposes of this section, the terms have the following meanings:

- a. “Data science” means instruction focused on the systematic processes, analytical techniques, and use of appropriate technologies to gain knowledge from data. It equips students with the introductory skills and problem-solving that is necessary to collect, analyze, interpret, model and visualize data, drawing upon tools and methods in areas such as mathematics, statistics, and computer science.
- b. “Department” means the department of education.

SECTION 2. DATA SCIENCE

(1) The department shall:

- a. Develop a high school data science course or sequence of courses, including academic standards. In developing the high school data science course or sequence of courses, the department shall
 - i. Ensure that the data science course or sequence of courses possess the appropriate level of rigor for an upper-level high school mathematics course while minimizing prerequisites or other student access barriers.
 - ii. Consult with appropriate employers and industry, postsecondary, and other stakeholders in the development of the high school data science course or sequence of courses and associated career and technical education pathway.
 - iii. Evaluate and approve the high school data science course or sequence of courses as a career and technical education pathway with linkages to postsecondary programs in data science.
- b. Review the academic standards for K-8 mathematics on the standards review cycle to integrate data science skills and competencies into the mathematics standards and consider integrating data science skills and competencies into additional subject areas on the standards review cycle.



- c. Develop or approve data science professional development opportunities for teachers to build instructional capacity to teach data science.
 - d. Allow the substitution of the high school data science course or sequence of courses for a higher-level math credit for purposes of high school graduation.
 - e. Coordinate with the higher education agency to recognize the high school data science course or sequence of courses as a higher-level math credit for purposes of postsecondary admissions.
- (2) The higher education agency shall coordinate with the department to:
- a. Evaluate and approve the high school data science course or sequence of courses as a higher-level math credit for purposes of postsecondary admissions.
 - b. Coordinate with the department and industry in developing a data science pathway with industry that links the high school data science course or sequence of courses into data science postsecondary programs.
- (3) The state workforce agency shall coordinate with the department, the higher education agency, and industry to identify higher-demand, higher-skill and higher-wage occupations linked to data science and report the findings in an easy-to-understand format to the department and school districts for dissemination to students, parents, career counselors and administrators.
- (4) To accomplish the purposes of this section, \$_____ is allocated to the department to provide professional development opportunities for teachers in data science.
- (5) The department shall adopt rules to implement this section.

SECTION 3. REPORT

- (1) Report annually by _____ to the Governor and the Legislature the department's implementation of the data science course or sequence of courses, including, but not limited to:
- a. Student enrollment in high school data science courses with student demographic information by school;
 - b. Number of teachers trained in data science;
 - c. Expenditure of data science professional development funds; and
 - d. Recommendations to scale the access to and student enrollment in the high school data science course or sequences of courses.
- (2) Unless reenacted by the Legislature, this section is repealed within five years of enactment.



SECTION 4.

This act shall take effect upon becoming a law.

