

MEDICAL ROBOTICS

GRADES 8–12

This document lists the Montana learning standards addressed by Medical Robotics, True Robotics' grades 8-12 robotics curriculum. Standards are grouped by subject and grade level, with codes and wording as published by the Montana Office of Public Instruction.

4

SCIENCE

7

CS

11

TOTAL STANDARDS

SCIENCE

4 STANDARDS

Based on the Montana state standards

GRADE	CODE	STANDARD
8	MT.6-8.LS.3	use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells
8	MT.6-8.PS.8	plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object
9–12	MT.9-12.LS.2	develop and use a model to illustrate the organizational structure of interacting systems that provide specific functions within multicellular organisms
9–12	MT.9-12.LS.3	plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis

COMPUTER SCIENCE

7 STANDARDS

Based on the Montana state standards

GRADE	CODE	STANDARD
8	CS.AP.6-8.1	use algorithms to address complex problems
8	CS.AP.6-8.2	create clearly named variables that represent different data types and perform operations on their values
8	CS.AP.6-8.3	develop programs that combine control structures, including nested loops and compound conditionals
8	CS.CS.6-8.2	design projects that combine hardware and software components to collect and exchange data

GRADE	CODE	STANDARD
9-12	CS.AP.9-12.1	create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests
9-12	CS.AP.9-12.10	decompose problems into smaller components through systematic analysis, using constructs such as procedures, modules, or objects
9-12	CS.IC.9-12.1	evaluate the ways computing technologies, globally and locally impact personal, ethical, social, economic, and cultural practices

SOURCES & NOTES

- The official science and computer science standards for Montana, as published by the Montana Office of Public Instruction.
- Codes and standard wording are reproduced from the official standards documents. Clarification statements, examples and assessment boundaries are omitted.
- Grade shows the grade level at which True Robotics lessons address each standard. A range (for example K-2) marks a standard written for a grade band.
- Standards text remains the property of its publisher and is reproduced here for alignment reference only.
- A lesson-level crosswalk is available on request at info@truerobotics.org.