

MEDICAL ROBOTICS

GRADES 8–12

This document lists the Colorado 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 Colorado Department of Education.

4

SCIENCE

7

CS

11

TOTAL STANDARDS

SCIENCE

4 STANDARDS

Based on the Colorado state standards

GRADE	CODE	STANDARD
8	SC.MS.2.1.c	Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.
8	SC.MS.1.3.b	Plan an investigation to provide evidence that the change in an objects motion depends on the sum of the forces on the object and the mass of the object.
9–12	SC.HS.2.1.b	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
9–12	SC.HS.2.1.c	Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

COMPUTER SCIENCE

7 STANDARDS

Based on the Colorado state standards

GRADE	CODE	STANDARD
8	CS.MS.3.3.b	Use flowcharts and/or pseudocode to address complex problems as algorithms.
8	CS.MS.3.3.a	Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
8	CS.MS.2.1.b	Design projects that combine hardware and software components to collect and exchange data.
9–12	CS.HS.3.2.d	Create appropriate variables to store and retrieve data.
9–12	CS.HS.1.1.c	Create or adapt algorithms to solve problems for multiple purposes (e.g., personal interests, stakeholder needs).

GRADE	CODE	STANDARD
9-12	CS.HS.1.4.a	Demonstrate how the process of decomposition is iterative and used to solve problems.
9-12	CS.HS.3.5.d	Identify influential computing innovations, and identify the beneficial and harmful effects they have had, or could have, on society, economy and culture.

SOURCES & NOTES

- The official science and computer science standards for Colorado, as published by the Colorado Department of Education.
- 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.