

MEDICAL ROBOTICS

GRADES 8–12

This document lists the Texas 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 Texas Education Agency.

3

SCIENCE

9

CS

12

TOTAL STANDARDS

SCIENCE

3 STANDARDS

Based on the Texas state standards

GRADE	CODE	STANDARD
8	112.27(b)(13)(A)	identify and model the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, urinary, reproductive, integumentary, nervous, immune, and endocrine systems
8	112.28(b)(7)(A)	calculate and analyze how the acceleration of an object is dependent upon the net force acting on the object and the mass of the object using Newton's Second Law of Motion
9–11	112.42(c)(12)(A)	analyze the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals

TECHNOLOGY APPLICATIONS (COMPUTER SCIENCE)

9 STANDARDS

Based on the Texas state standards

GRADE	CODE	STANDARD
8	126.18(c)(1)(A)	decompose real-world problems into structured parts using flowcharts
8	126.19(c)(1)(A)	decompose real-world problems into structured parts using pseudocode
8	126.19(c)(2)(A)	construct named variables with multiple data types and perform operations on their values
8	126.19(c)(2)(B)	use a software design process to create text-based programs with nested loops that address different subproblems within a real-world context
9–12	127.673(d)(4)(C)	identify the tasks and subtasks needed to solve a problem
9–12	127.673(d)(5)(E)	investigate computing and computing-related advancements and the social and ethical ramifications of computer usage

GRADE	CODE	STANDARD
9–12	127.696(d)(8)(I)	develop a prototype solution; test the prototype solution against requirements, constraints, and specifications; and refine the prototype solution
9–12	127.696(d)(10)(A)	design and explain software interfaces that communicate with hardware
10–12	127.674(d)(5)(AA)	apply functional decomposition to a program solution

SOURCES & NOTES

- The official science and computer science standards for Texas, as published by the Texas Education Agency.
- 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.