2025 – 2026

PROGRAM GUIDE

HEALTH SCIENCE CLUSTER

AND MIDDLE SCHOOL

EDUCATION

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Health Science Cluster Program Guide

The Health Science cluster provides students with essential knowledge and skills for pursuing careers in the following five pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development. Rigorous and challenging content may include a variety of instructional strategies, work-based learning experiences, and simulation.

**Courses highlighted in yellow are shared with other clusters. See "Shared Courses" table on page 3 for additional details.

Career Pathway Program	Health Science Program (Must teach three courses from this program list within two years) The Health Science Program prepares students for employment in careers that involve planning, managing, and providing healthcare services through professions in the following categories: therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.		
Course Number	**Career Pathway Program Courses**	**Career Readiness Indicator (CRI)**	**In Demand Occupations**
14002G1001	**Foundations of Health Science – Required Foundation Course/Health Education Substitute**	• Alabama Certified Employee (ACE)	• Cardiovascular Technologists & Technicians
14252G1010	Biotechnology I – Science credit eligible	• Alabama Fire College Public Safety Telecommunicator	• Clinical Laboratory Technologists & Technicians
14252G1011	Biotechnology II – Science credit eligible	• Ambulance Operator– Skills for Success	• Dental Assistants
14997G1010	Career Pathway Project in Health Science	• BACE – Biotechnology Aptitude and Competency Exam	• Dental Hygienists
14999G1000	CTE Lab in Health Science	• BLS Instructor	• Diagnostic Medical Sonographers
14149G1000	Diagnostic Services	• Certified Billing and Coding Specialist (CBCS)	• Emergency Medical Technicians & Paramedics
14055G1010	Emergency Medical Services	• Certified Clinical Medical Assistant (CCMA)	• Licensed Practical Nurses
14055G1000	Emergency Services and Management	• Certified EKG Technician (CET)	• Medical Assistants
15055G1000	Forensic Science and Crime Scene Investigation – Science credit eligible	• Certified Electronic Health Records Specialist (CEHRS)	• Medical Equipment Preparers
14298G1000	Health Science Internship – 1 credit option	• Certified Medical Administrative Assistant (CMAA)	• Medical & Health Services Manager
14298G2000	Health Science Internship – 2 credit option	• Certified Nursing Assistant (CNA)	• Medical Record Specialists
14299G1001	Human Body Structures and Functions – Science credit eligible	• Certified Patient Care Technician/Assistant (CPCTA)	• Medical Secretaries & Administrative Assistants
18105G1012	Introduction to Veterinary Science	• Certified Pharmacy Technician (CPhT)	• Nurse Practitioners
14254G1010	Medical Mathematics – Math credit eligible	• Community Health Worker – Skills for Success	• Occupational Therapy Assistants
14154G1000	Medical Terminology	• Elanco Veterinary Medical Applications Certification	• Ophthalmic Medical Technicians
14051G2000	Nurse Aide Training	• Emergency Medical Dispatcher (EMD)	• Pharmacists
14254G1015	Operating Room Essentials	• Lifeguard Certification (American Lifeguard Association or American Red Cross)	• Pharmacy Technicians
14051G1000	Patient Care Technician	• Mental Health Worker – Skills for Success	• Phlebotomists
14152G1001	Pharmacy Technician	• National Academy of Sports Medicine Certified Personal Trainer (NASM-CPT)	• Physical Therapists
17049G1000	Safety and Health Regulations	• National Emergency Medical Responder (EMR)	• Physical Therapy Assistants
14062G1010	Sports Medicine I	• National Emergency Medical Technician (EMT)	• Psychiatric Aides
14062G1011	Sports Medicine II	• Nursing Support Technician-Certified	• Psychiatric Technicians
14099G1000	Therapeutic Services	• Veterinarian Assistant – Skills for Success	• Radiologic Technologists
18105G1022	Veterinary Science		• Registered Nurses
14298G1001	WBL Internship in Health Science		• Respiratory Therapists
			• Speech-Language Pathologists
			• Surgical Technologists
			• Veterinarians
			• Veterinary Assistants & Laboratory Animal Caretakers
			• Veterinary Technologists & Technicians

PLTW Biomedical Science Program

The Health Science Program prepares students for employment in careers that involve planning, managing, and providing healthcare services through professions in the following categories: therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations
14255G1000	Biomedical Innovation	• Alabama Certified Employee (ACE) • Alabama Fire College Public Safety Telecommunicator • Ambulance Operator– Skills for Success • BACE – Biotechnology Aptitude and Competency Exam • BLS Instructor • Certified Billing and Coding Specialist (CBCS) • Certified Clinical Medical Assistant (CCMA) • Certified EKG Technician (CET) • Certified Electronic Health Records Specialist (CEHRS) • Certified Medical Administrative Assistant (CMAA) • Certified Nursing Assistant (CNA) • Certified Patient Care Technician/Assistant (CPCTA) • Certified Pharmacy Technician (CPhT) • Community Health Worker – Skills for Success • Elanco Veterinary Medical Applications Certification • Emergency Medical Dispatcher (EMD) • Lifeguard Certification (American Lifeguard Association or American Red Cross) • Mental Health Worker – Skills for Success • National Academy of Sports Medicine Certified Personal Trainer (NASM-CPT) • National Emergency Medical Responder (EMR) • National Emergency Medical Technician (EMT) • Nursing Support Technician-Certified • Veterinarian Assistant – Skills for Success	• Cardiovascular Technologists & Technicians • Clinical Laboratory Technologists & Technicians • Dental Assistants • Dental Hygienists • Diagnostic Medical Sonographers • Emergency Medical Technicians & Paramedics • Licensed Practical Nurses • Medical Assistants • Medical Equipment Preparers • Medical & Health Services Manager • Medical Record Specialists • Medical Secretaries & Administrative Assistants • Nurse Practitioners • Occupational Therapy Assistants • Ophthalmic Medical Technicians • Pharmacists • Pharmacy Technicians • Phlebotomists • Physical Therapists • Physical Therapy Assistants • Psychiatric Aides • Psychiatric Technicians • Radiologic Technologists • Registered Nurses • Respiratory Therapists • Speech-Language Pathologists • Surgical Technologists • Veterinarians • Veterinary Assistants & Laboratory Animal Caretakers • Veterinary Technologists & Technicians
14299G1002	Human Body Systems – Science credit eligible		
14299G1003	Medical Interventions		
14251G1001	PLTW Capstone – Biomedical Science		
14252G1002	Principles of Biomedical Sciences		

*NOTE: This is a purchased curriculum. LEAs must contact PLTW for additional information prior to utilizing the course codes listed above with a PLTW suffix, as it does require submission of a signed copy of the Terms and Conditions, participation in mandatory training and payment of a participation fee to the provider.

Health Science Middle School Program

Middle grades course content includes practices that promote health and wellness, disease prevention, legal and medical ethics, communication, medical math, medical terminology, and technical skills related to healthcare. These courses are designed to give students a variety of opportunities to apply their learning and demonstrate relevant interpersonal and workforce skills.

Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations
22151G0608	Career Explorations	N/A	*See List Above
14001G0638	Health Science Discovery		
14001G0618	Healthcare Career Exploration		
14001G0728	Medical Laboratory Science		

Project Lead the Way Middle School Program

Students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, examine nervous system structure and function, and investigate disease outbreaks.

Course Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	In Demand Occupations
14001G0608	Medical Detectives	N/A	*See List Above

*NOTE: This is a purchased curriculum. LEAs must contact PLTW for additional information prior to utilizing the course codes listed above with a PLTW suffix, as it does require submission of a signed copy of the Terms and Conditions, participation in mandatory training and payment of a participation fee to the provider.

2025-2026 Subject and Personnel Codes
Health Science Cluster and Health Science Middle School Program

	Health Science Cluster Courses		
Course Number	**Course Name**	**Course Number**	**Course Name**
14255G1000	Biomedical Innovation (PLTW)	14254G1010	Medical Mathematics – Math credit eligible
14252G1010	Biotechnology I – Science credit eligible	14299G1003	Medical Interventions (PLTW)
14252G1011	Biotechnology II – Science credit eligible	14154G1000	Medical Terminology
14997G1010	Career Pathway Project in Health Science	14051G2000	Nurse Aide Training
14999G1000	CTE Lab in Health Science	14254G1015	Operating Room Essentials
14149G1000	Diagnostic Services	14051G1000	Patient Care Technician
14055G1010	Emergency Medical Services	14150012G1	Pharmacy Technician
14055G1000	Emergency Services and Management	14251G1001	PLTW Capstone– Biomedical Science
15055G1000	Forensic Science and Crime Scene Investigation – Science credit eligible	14252G1002	Principles of Biomedical Sciences (PLTW)
14002G1001	**Foundations of Health Science – Required Foundation Course/Health Education Substitute**	14062G1010	Sports Medicine I
14298G1000	Health Science Internship – 1 credit option	14062G1011	Sports Medicine II
14298G2000	Health Science Internship – 2 credit option	14099G1000	Therapeutic Services
18105G1012	Introduction to Veterinary Science	18105G1022	Veterinary Science
14299G1001	Human Body Structures and Functions – Science credit eligible	14298G1001	WBL Internship in Health Science
14299G1002	Human Body Systems (PLTW) – Science credit eligible		

	Health Science Middle School Program Courses
Course Number	**Course Name**
22151G0608	Career Explorations
14001G0638	Health Science Discovery
14001G0618	Healthcare Career Exploration
14001G0608	Medical Detectives (PLTW)
14001G0728	Medical Laboratory Science

	Shared Courses		
Course Number	**Course Name**	**Cluster(s)**	**Required Year to Implement COS**
22151G0608	Career Explorations	Agriculture, Food and Natural Resources **Business, Management, and Administration** Law, Public Safety, Corrections and Security	2021-2022
14055G1000	Emergency Services and Management	Law, Public Safety, Corrections and Security	2021-2022
15055G1000	Forensic Science and Crime Scene Investigation	Law, Public Safety, Corrections and Security	2021-2022
18105G1012	Introduction to Veterinary Science	Agriculture, Food and Natural Resources	2021-2022
17049G1000	Safety and Health Regulations	Architecture and Construction **Manufacturing** Transportation, Distribution and Logistics	2022-2023
18105G1022	Veterinary Science	Agriculture, Food and Natural Resources	2021-2022

General Note: Course descriptions and content standards for most courses are located on the Alabama Department of Education website at: Alabama Achieves | Career and Technical Education | Courses of Study

College and Career Readiness Indicator Course Matrix

Program Name	Health Science	PLTW Biomedical Science
Foundation Course(s)	**Foundations of Health Science – Required Foundation Course**	Foundations of Health Science (not required for the PLTW Biomed program)
Concentrator Course(s)	Biomedical Innovation (PLTW) Biotechnology I Biotechnology II Diagnostic Services Emergency Medical Services Emergency Services and Management Forensic Science and Crime Scene Investigation Human Body Structures and Functions Human Body Systems (PLTW) Introduction to Veterinary Science Medical Interventions (PLTW) Medical Mathematics Medical Terminology Nurse Aide Training Operating Room Essentials Patient Care Technician Pharmacy Technician Principles of Biomedical Sciences (PLTW) Safety and Health Regulations Sports Medicine I Sports Medicine II Therapeutic Services Veterinary Science	Biomedical Innovation (PLTW) Human Body Systems (PLTW) Medical Interventions (PLTW) Principles of Biomedical Sciences (PLTW)
Capstone Course(s)	Career Pathway Project in Health Science CTE Lab in Health Science Health Science Internship PLTW Capstone – Biomedical Science WBL Internship in Health Science	PLTW Capstone – Biomedical Science

To meet the CCR Indicator as a CTE completer, a student must earn three (3.0) credits with the grade of a "C" or higher in CTE courses that are part of an approved CTE program of study. Additional requirements are outlined in in Memorandum FY25-2048.

This matrix is intended for general guidance on the CCR completer status and is subject to change. For all CTE programming information, please refer to the CTE Cluster specific Program Guide. It contains a list of approved CTE programs, valid course numbers, approved Career Readiness Indicators (CRIs), and in demand occupations.

*Courses are listed in alphabetical order, not in sequential order.