

HEALTH SCIENCE AND MEDICINE PROGRAM OF STUDY

Pathway Description

The health care industry is one of the fastest growing sectors in the realm of employment opportunities, as well as the number one employer in Cumberland County. The overall health, both of New Jersey's economy and its people, is clearly tied to the capabilities of this evolving profession. Our program will help to prepare students for a wide array of career opportunities in the health care field including: nurses, surgical technicians, physicians, dentists, pediatricians, physical therapists, dietitians, pharmacists, and various other health care occupations. The curriculum provides an overview of the different fields present in the health care sector along with targeted courses on systems of the human body, medical terminology, nutrition, and various aspects of clinical research and emergency care.

This pathway includes a rigorous series of courses including: Dynamics of HealthCare, Medical Terminology, Emergency Clinical Care, Scientific Principles of Nutrition, Anatomy and Physiology I & II, and Introduction to Clinical Research.

Students additionally will have the opportunity to earn dual credit by taking these classes through CCTEC's partnership with Rutgers University. As an additional program feature, students will be able to gain certifications for entry-level health care positions upon high school graduation.

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Course Sequence

CORE	GRADE 9	GRADE 10	GRADE 11	GRADE 12
ENGLISH	ENGLISH I	ENGLISH II	ENGLISH III OR AP LANGUAGE/COMP	ENGLISH IV OR AP LITERATURE/COMP
SOCIAL STUDIES	WORLD HISTORY	US HISTORY I OR AP US HISTORY I	US HISTORY II OR AP US HISTORY II	AP GOVERNMENT
MATHEMATICS	ALGEBRA I OR GEOMETRY	GEOMETRY OR ALGEBRA II	ALGEBRA II OR PRECALCULUS	PRECALCULUS OR AP CALCULUS
SCIENCE	BIOLOGY	CHEMISTRY	PHYSICS OR AP PHYSICS I	AP BIOLOGY
HEALTH/PHYSICAL EDUCATION	FITNESS AND HEALTH I	FITNESS AND HEALTH II	FITNESS AND HEALTH III	FITNESS AND HEALTH IV
CTE MAJOR	INTRO TO THE HEALTHCARE PROFESSION	MEDICAL TERMINOLOGY*	EMERGENCY CLINICAL CARE * & INTRO TO CLINICAL RESEARCH *	ANATOMY AND PHYSIOLOGY II *
INTERDISCIPLINARY STUDIES	ART I	DYNAMICS OF HEALTH CARE *	ANATOMY AND PHYSIOLOGY I *	ELECTIVE
WORLD LANGUAGE	SPANISH I	SPANISH II	SPANISH III	AP SPANISH

*** Potential College Credits Awarded by Rutgers University**

Health Science and Medicine Program of Study

Course Credits

Freshman

English I	5 credits
World History	5 credits
Algebra I or Geometry	5 credits
Biology	5 credits
Spanish I	5 credits
Fitness and Health I	5 credits
Applications in Art	5 credits
Introduction to the Healthcare Profession	5 credits

Sophomore

English II	5 credits
US History I or AP US History I	5 credits
Geometry or Algebra II	5 credits
Chemistry	5 credits
Spanish II	5 credits
Fitness and Health II	5 credits
Dynamics of Healthcare	5 credits
Medical Terminology	5 credits

Junior

English III or AP Language/Comp	5 credits
US History II or AP US History II	5 credits
Algebra II or Pre-calculus	5 credits
Physics or AP Physics I	5 credits
Spanish III	5 credits
Fitness and Health III	5 credits
Anatomy and Physiology I	5 credits
Introduction to Clinical Research	2.5 credits
Emergency Clinical Care	2.5 credits

Senior

English IV or AP Literature /Comp	5 credits
AP Government	5 credits
Pre-calculus or Calculus	5 credits
AP Biology	5 credits
AP Spanish	5 credits
Anatomy and Physiology II	5 credits
Fitness and Health IV	5 credits
Elective	5 credits

Health Science and Medicine Program of Study
Course Descriptions

Course Title: Introduction to the Healthcare Profession

Grade Level: 9

Credits: 5

This first year course is intended for students who are planning for a career in health care or a health related field. It provides students with a foundation for high school success, as well as an introduction to the various health professions, resources for career planning, and the concepts of professionalism, health care ethics, cultural competence, interdisciplinary health care teams, world health issues and health care policies.

Course Title: Dynamics of Health Care in Society

Grade Level: 10

Credits: 5

Dynamics of Health Care in Society is an orientation to health care and delivery, from an interdisciplinary perspective, with a focus on process skills to include critical thinking, ethical reasoning, effective communication, and self-directed learning abilities. The professional competencies stress application to general issues and topics common to all health care providers. Emphasis is placed on the role of the health care practitioner as both provider and consumer of health care services.

Course Title: Medical Terminology

Grade Level: 10

Credits: 5

Medical Terminology is the study of words that pertain to body systems, anatomy, physiology, medical processes and procedures and a variety of diseases. It provides specialized language for the health care team, enabling health care workers to communicate in an accurate, articulate and concise manner. This course is designed to give the students a comprehensive knowledge of word construction, definition and use of terms related to all areas of medical science. The course includes but is not limited to terms related to anatomy of the human body, functions of health and disease, and the use of language in processing medical/dental records and claim forms.

Course Title: Anatomy and Physiology I

Grade Level: 11

Credits: 5

Anatomy and Physiology is the study of the structure and function of the human body. This course follows a sequential development of the major body systems in an organized and structured curriculum. The course is designed to give the students a selective overview of human anatomical structure and an analysis of human physiological principles. Labs will include slide work, dissection of various animals and studies of the human skeleton. The course will also use computer simulated dissection.

Course Title: Emergency and Clinical Care

Grade Level: 11

Credits: 2.5

Emergency and Clinical Care is a course that describes how to respond to emergencies before medical help arrives. The course is designed to give the student the knowledge of how to recognize and respond to an emergency. The intent of the course is to help the student feel more confident in his/her ability to act appropriately in the event of an emergency. Students are prepared to 1) obtain a patient medical history, 2) take and record vital signs relative to medical/dental treatment, and 3) acquire cardiopulmonary resuscitation certification.

Course Title: Introduction to Clinical Research

Grade Level: 11

Credits: 2.5

This course is designed to provide students with a basic understanding of what clinical research is and the scientific principles on which it is based. The course starts with a historical perspective on clinical research and then goes on to explore in detail the following topics: purpose and phases of clinical research, clinical trial development and conduct, ethical and regulatory implications, and the roles and responsibilities of all parties involved in clinical research.

Course Title: Anatomy and Physiology II

Grade Level: 12

Credits: 5

Anatomy and Physiology II is a continuation of the study of structures and functions of the body from part one. The course examines various systems of the body that were not previously studied in Anatomy and Physiology I. Students gain greater insight into the functioning of the body as a whole and develop a broader perspective on homeostatic imbalances.