



# Union County Vocational-Technical High School

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Middle States Association of Colleges and Secondary Schools Accredited  
2012 National Blue Ribbon School of Excellence

**MISSION STATEMENT:** The Union County Vocational-Technical High School is a four-year, full-time high school dedicated to advancing the learning and well-being of all students. UCTECH is committed to ensuring high standards and challenging opportunities to students through the integration of academic and technical training. We also strive to develop self-awareness, confidence, character, sensitivity to the environment, and leadership skills. Academic and technical disciplines are fully integrated; students will be consistently called upon to challenge their levels of learning through assignments and projects requiring application of knowledge across all disciplines.

Union County Vocational-Technical High School Vocational Course Sequence	
Grade 9	Introduction to Systems Applications
Grade 10	Students select a <i>Technical Concentration</i> from the following options: Automotive Technology, Green Construction Technology, Commercial Art, Cosmetology, Criminal Justice, Culinary Arts, Electrical Technology, Digital Media Design, Information Technology
Grade 11	
Grade 12	

**CERTIFICATIONS:** Students who successfully complete all course requirements receive a NJ State Department of Education approved vocational-technical certificate upon graduation. Students can also earn the following industry recognized certificates in their technical concentration:

AutoCad Certified User  
Automotive Services Excellence (ASE)  
CompTIA A+ Certification  
Cosmetology License

National Occupational Competency Technical Institute  
OSHA 30  
ServSafe®

**ADVISORY BOARD:** The career academies and technical pathways at UCTECH have established a strong working relationship with representatives from colleges and universities, industry professionals, and the UCTECH community. These partnerships have allowed our school to create innovative and structured educational opportunities that prepare our students for their respective futures. Our advisory board consists of professionals from Kean University, Montclair State University, Ramapo College of New Jersey, Rutgers University, and the United States Department of Energy.

# UCTECH Career Academies

In addition to the Union County Vocational-Technical High School technical concentrations, UCVTS offers five innovative and exciting career academies under the umbrella of UCTECH.



## Exercise Physiology & Related Sciences

**MISSION STATEMENT:** The Exercise Physiology & Related Sciences Program (ExPRS) is a specialized program that provides students with an understanding of how the body functions, reacts, and responds to movement during physical exercise. ExPRS has been designed to prepare students for many opportunities in the growing fields of health and exercise, specifically in jobs related to physical therapy, occupational therapy, exercise science, athletic training, sports medicine, cardiac rehabilitation, and nutrition. ExPRS students obtain a solid foundation in the medical sciences while completing a rigorous curriculum, including the opportunity to earn college credits through Rutgers University.

<b>Exercise Physiology and Related Sciences Vocational Course Sequence</b>	
Grade 9	Introduction to Fitness & Nutrition, Anatomy & Physiology, Ethics
Grade 10	Kinesiology, Exercise Physiology, Dynamics of Healthcare in Society*, Scientific Principles of Nutrition*
Grade 11	Fundamentals of Health and Wellness*, Emergency and Clinical Care*, Anatomy & Physiology I*, Introduction to Physical Therapy, Rapid EKG Interpretation
Grade 12	Anatomy & Physiology II*, Physiological Adaptation to Exercise, Medical Terminology*, Internship

\*Rutgers University School of Health Related Professions course

**CERTIFICATIONS:** American College of Sports Medicine Personal Trainer

**POST-SECONDARY PARTNERSHIP:** UC TECH works in conjunction with Rutgers University to provide ExPRS students the opportunity to earn college credit through the School of Health Related Professions.



## School of Design

**MISSION STATEMENT:** The School of Design affords students the unique educational opportunity to study digital media and computer aided design while spending their senior year at Kean University. School of Design students have access to the latest multimedia design hardware and software to learn to visually express ideas by merging creativity and technology. Students are introduced to subject areas including video and motion graphic production, digital photography, 3D Animation and 3D modeling, AutoDesk (CAD, Inventor, 3D modeling and Revit), and technical drawing and design.

School of Design Vocational Course Sequence	
Grade 9	Visual Form I*, Visualizing Techniques I*
Grade 10	Visual Form II*, Visualizing Techniques II*, Computers in Graphics I and II*
Grade 11	Drafting & CAD*, CAD and 3D Modeling*, Expressive Imaging*
Grade 12	Intro to Interior Design*, CAD for Interior Design*, Design Electives*

\*Kean University course

**CERTIFICATIONS:** AutoCAD Certified User

**ARTICULATION AGREEMENT WITH KEAN UNIVERSITY:** UCTECH, in conjunction with Kean University, provides School of Design students the opportunity to earn college credit. Students spend their high school senior year at Kean University taking a full freshman college course load, which includes a concentration in The Robert Busch School of Design. In addition, students are given the opportunity to select courses from Kean's highly selective NJ Center for Science, Technology, Engineering and Mathematics (STEM) curriculum. Credit and grades earned through this collaborative program appear on an official transcript from Kean University.



## Teacher Education Academy

**MISSION STATEMENT:** The Teacher Education Academy (TEA) trains future educators in topics related to the history and future of education, professionalism and ethics, child/adolescent psychology and the art of teaching. TEA students, who spend their senior year at Kean University, have the opportunity to assess themselves as learners and maintain a portfolio that reflects what they have learned and discovered about the teaching profession and themselves as learners and future educators. Students have the opportunity to intern, learn about the diversity of teaching, and discover more about the roles and responsibilities of a school and its staff.

Teacher Education Academy Vocational Course Sequence	
Grade 9	Education I
Grade 10	Education II, Psychology
Grade 11	Education III
Grade 12	Educational Psychology*, Sociology of Education*, Disabled Person in American Society*, Fieldwork in Education*

\*Kean University course

**CERTIFICATIONS:** Praxis® Core Academic Skills for Educators (CORE)

**ARTICULATION AGREEMENT WITH KEAN UNIVERSITY:** UCTECH, in conjunction with Kean University, provides Teacher Education Academy students the opportunity to earn college credit. Students spend their high school senior year at Kean University taking a full freshman college course load, which includes a concentration in The College of Education. In addition, students are given the opportunity to select courses from Kean's highly selective NJ Center for Science, Technology, Engineering and Mathematics (STEM) curriculum. Credit and grades earned through this collaborative program appear on an official transcript from Kean University.



## School of Sustainable Sciences

**MISSION STATEMENT:** The School of Sustainable Sciences puts into practice project and problem-based learning, solving real world problems with sustainable solutions. Students, who spend their senior year at Kean University take a series of math and science related courses that provide a foundation for them to pursue degrees and careers in sustainability. Students explore careers in sustainable design, energy, and technology. Curriculum topics include the economics of sustainability and applications of sustainable science in the 21<sup>st</sup> Century.

School of Sustainable Sciences Vocational Course Sequence	
Grade 9	Foundations of Science for Sustainability, Sustainability Science I
Grade 10	Sustainability Science II, Civics of Sustainability
Grade 11	Sustainability Science III, Economics of Sustainability, AP Environmental Science
Grade 12	Kean University Courses in Sustainability Studies*

\*Kean University Center for Sustainability Studies course

**ARTICULATION AGREEMENT WITH KEAN UNIVERSITY:** UCTECH, in conjunction with Kean University, provides School of Sustainable Sciences students the opportunity to earn college credit. Students spend their high school senior year at Kean University taking a full freshman college course load, which includes a concentration in The Center for Sustainability Studies. In addition, students are given the opportunity to select courses from Kean's highly selective NJ Center for Science, Technology, Engineering and Mathematics (STEM) curriculum. Credit and grades earned through this collaborative program appear on an official transcript from Kean University.



## Academy for Clinical Care Sciences

**MISSION STATEMENT:** The Academy for Clinical Care Sciences will prepare students interested in pursuing a career in a direct patient care field, such as nursing. Students will be introduced to subject areas including anatomy and physiology, medical terminology, dynamics of health care, nutrition, and clinical care skills. The fundamental skill and talent of caring will be introduced to students through coursework and clinical setting observations. Professional problem solving will be learned through observing and assessing clinical scenarios.

Academy for Clinical Care Sciences Vocational Course Sequence	
Grade 9	Clinical Care I
Grade 10	Dynamics of Health Care in Society*, Scientific Principles of Nutrition*
Grade 11	Fundamentals of Health and Wellness*, Anatomy and Physiology I*, Emergency and Clinical Care*
Grade 12	Anatomy and Physiology II*, Medical Terminology*

\*Rutgers University School of Health Related Professions course

**CERTIFICATIONS:** Basic Life Support (American Heart Association), Patient Care Technician

**POST-SECONDARY PARTNERSHIP:** UCTECH works in conjunction with Rutgers University to provide Academy for Clinical Care Sciences students the opportunity to earn college credit through the School of Health Related Professions.