



CATEC Program of Studies 2016-2017

Charlottesville Albemarle Technical Education Center (CATEC)

My Choice. My School. My Future.

High school CATEC classes are offered at CATEC and other sites, and are available to all Albemarle County and Charlottesville City Public School students free of charge. Most programs meet for half-day and include practical, hands-on training in a variety of exciting career fields. Transportation to and from base schools is provided. To enroll in CATEC classes, students should fill out the online application with their high school counselor's assistance.

Students who attend and complete CATEC programs have the opportunity to receive a recognized certification or credential in their field and high school elective credit. Students completing CATEC programs receive, on average, 11 dual enrollment college credits.

CATEC houses two academies which offer educational and career pathways for students in partnership with post-secondary institutions and employers. Students in the academies may qualify to receive industry certifications and credentials. These credentials are a valuable tool to gain full-time employment in growth industries with livable wages. Graduates may also continue their education utilizing the dual enrollment credits they received while in high school.

In addition, CATEC offers several CTE programs that train for industry credentials and receive dual enrollment credit.

CATEC Information & Engineering Technology Academy

CATEC is partnered with PVCC, CISCO Systems, and local businesses to develop career and educational [Pathways](#) in computer networking and cybersecurity.

CATEC Healthcare and Medical Services Academy

CATEC is partnered with PVCC, UVA health system, Reynolds Community College, and local businesses to develop career and educational [Pathways](#) in the areas of nursing, pharmacy, and dental, and emergency medicine.



Additional CATEC Programs

- Auto Service Technician
- Auto Body Repair
- Building Trades
- Electrician
- Fire Fighting
- Culinary Arts
- Cosmetology
- Music Industry Technology
- CATEC Exploratory

Admissions

Students need to complete the online interest survey and will then participate in an interview with a member of the CATEC faculty. CATEC staff will work with guidance counselors to assist students in scheduling their classes.

In addition, students who select a dual enrollment course are required to take the VPT exam in the spring before they begin the class. Students should check with their high school counselor to see if they are exempt from taking any part of the VPT exam based on qualifying scores on their ACT, SAT, PSAT, and SOL exams.

Scheduling

Most CATEC classes are offered at CATEC on Rio Road. Students are bussed from their base schools and usually spend either the entire morning or the entire afternoon at CATEC. Students may enroll in online courses at their base schools or at CATEC to provide more scheduling flexibility.

CATEC 2016-2017 Academy and Program Course Offerings

Academy	Class	State Code	Duration	Grades	Dual Enrolled	Credential	AM or PM
Information and Engineering Technology Academy	Ethical Hacking	8542 6650	1 year	9-12	PVCC- 7 Credits	Cisco CCENT CompTIA A+	AM PM



Health and Medical Academy	Nurse Assistant I&II	8360 8362	1 year	10-12	PVCC- 11 credits	State certified Nurse Assistant (CNA)	AM PM
	Dental Assistant I&II	8328 8329	1 year	10-12	Reynolds CC credits TBD	Radiation Health Safety, Infection Control, CPR, First Aid	PM only
	Pharmacy Technician I&II	8305 8306	1 year	10-12	PVCC- 11 TBD credits	State certified Pharmacy Technician	AM only
	EMT I&II	8333 8334	1 year	Age 16 on first day	PVCC- Credits TBD	State certified EMT-B, CPR	PM only
Program	Class	State Code	Duration	Grades	Dual Enrolled	Credential	AM or PM
Firefighting	Firefighter I & II	8705 8706	1 year	Age 16 on first	J. Sargeant Reynolds- 6 Credits PVCC 2 Credits	State Firefighting 1&2, CPR, First Aid, Hazmat, FEMA 100, FEMA 200, FEMA 700, EMT-B	AM only
Auto Service Tech	Auto Tech I	8506	1 year	10-12	JSRCC 10 credits		AM PM
	Auto Tech II	8507	1 year	11-12	JSRCC 10 credits	AYES	PM only
Auto Body Tech	Auto Body Technology I & II	8676 8677	1 year	9-12		NOCTI	AM PM
	Auto Body Technology II*	8680	1 year	11-12		NOCTI	PM only
Building Trades	Building Trades I & II**	8515 8516	1 year	9-12	PVCC- 9 Credits	NCCER, Construction Academy Assessments	AM only
	Electrician I&II	8533 8534	1 year	9-12		NCCER, Construction Academy Assessments	PM only



Culinary Arts	Professional Culinary Arts I	8521	1 year	9-12		Serve Safe	AM PM
	Professional Culinary Arts II	8522	1 year	10-12	PVCC-12 Credits	NOCTI Serve Safe	PM only
	Intro to Culinary Arts	8224	1 year	9-12 SPED		Serve Safe	AM only
Cosmetology	Cosmetology I	8527	1 year	9-12			AM PM
	Cosmetology II	8528	1 year	10-12		State Cosmetology License	AM PM
Music Industry	Music Industry	8640	1 year	9-12			PM only
Career Exploration	CATEC Exploratory	9071	1 year	9-12			AM-1 credit PM-2-3 Credits

*Autobody I&II is transitioning to a 1 year program. For '16-'17 Autobody II will be offered as a one year class. For '17-'18, Autobody III will be offered.

**Building Trades is transitioning to a 1 year program. For '16-'17, students who have already completed one year of Building Trades I may sign up for Building Trades I&II to receive completer status.



CATEC Class Descriptions

Course Title:	Ethical Hacking
Course Description:	<p>Students will learn the basics of computer networking including hardware and software. This program is a certification program for entry-level Network Engineers, Network Specialists, Network Administrators, and Network Support Engineers. First year skills include installation, configuration, operation and troubleshooting of medium-sized routed and switched networks as well as computer and network hardware repair and troubleshooting. In year two of the program students further develop these skills while learning to develop a security infrastructure, recognize threats and vulnerabilities to networks, and mitigate security threats. Wireless networking is also introduced.</p> <p>Certifications: Cisco CCENT; CompTIA A+</p>
Prerequisite(s):	
Corequisite(s):	
Credit:	<p>2-3 Elective Credits*</p> <p>*2 elective credits if taken in conjunction with a CATEC English or other online class.</p>
Levels:	<p>Ia8542</p> <p>Ib6650</p>
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Information Technology
Offered at:	CATEC (available to all students)
Dual Enrollment:	TBD dual enrollment college credits with PVCC
Grades	9-12



Course Title:	Nurse Aide (1-year program)
Course Description:	<p>This course emphasizes study of nursing occupations, body systems and disorders, basic nursing skills, study of human growth and development, first aid, nutrition, simple body structure, medical terminology, microbes and disease, vital signs, and patient care. Clinical experience is provided in nursing homes and hospitals. Community service outreach projects are required and organized by students.</p> <p>Certifications: VA Certified Nurse Aide, CPR, First Aid No English</p>
Prerequisite(s):	
Corequisite(s):	
Credit:	3 Elective Credits; 1-2 Verified Credits (certification, completer)
Levels:	Nurse Aide I 8360 Nurse Aide II 8362
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Health and Medical Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	TBD dual enrollment college credits at PVCC
Grades	10-12

Course Title:	Dental Assistant I & II (1-year program)
Course Description:	<p>This one-year program prepares students to perform all the tasks of a Dental Assistant. These include taking x-rays, preparing materials for procedures, making impressions, removing sutures, placing topical anesthetics, and making diagnostic study models. Dental Assistant students also study maintenance of patient records, disinfection of instruments and equipment, and preparation of patients for dental treatment. This program will give students a foundation to pursue a Dental Hygienist post-secondary degree through a two- or four-year college.</p>



	Certifications: Radiation Health and Safety, Infection Control, CPR, & First Aid
Prerequisite(s):	
Corequisite(s):	
Credit:	2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.
Levels:	I 8328 II 8329
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Health and Medical Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	TBD Dual Enrollment with Reynolds Community College
Grades	10-12

Course Title:	Pharmacy Technician (1-year program)
Course Description:	<p>This one-year program will prepare students to perform all the tasks of a Pharmacy Technician. Students also study safety procedures, medication and inventory control, maintaining records, preparing labels, and processing insurance claims.</p> <p>This program prepares students to successfully complete the Certified Pharmacy Technician (CPhT) examination.</p> <p>Certifications: Virginia Pharmacy Technician, CPR</p>
Prerequisite(s):	
Corequisite(s):	
Credit:	2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.



Levels: 8305
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Health and Medical Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	11 TBD Dual enrollment college credits with PVCC
Grades	10-12

Course Title:	EMT I & II (1-year program)
Course Description:	Students will learn the basics of emergency medical care including anatomy and physiology, initial patient survey and triage, airway management, oxygen therapy, and treatment of bleeding, shock, cardiac arrest, fractures, spinal injuries and other medical emergencies. Course requires strenuous physical activity Certifications: Virginia EMT-Basic, CPR
Prerequisite(s):	Must be 16 or older by start of school; Other requirements as set forth by the Virginia Office of Emergency Medical Services
Corequisite(s):	
Credit:	2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.
Levels:	I..... 8333 II..... .8334
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Health and Medical Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	PVCC
Grades	9-12 Must be 16 years old on first day of school.



Course Title:	Firefighting I & II (1-year program)
Course Description:	<p>First semester instruction includes fire department organization and procedures. Supervised internships are provided with fire and rescue and are managed by the teacher. Second semester focuses on fire-ground management and operations. Course requires strenuous physical activity & occasional exposure to smoke-filled environments.</p> <p>Certifications: Firefighter I, Firefighter II, CPR, First Aid</p>
Prerequisite(s):	Must be 16 or older by start of school; Other requirements as set forth by the Virginia Office of Emergency Medical Services
Corequisite(s):	
Credit:	<p>2-3 Elective Credits*; 1-2 Verified Credits (certification, completer)</p> <p>*2 elective credits if taken in conjunction with a CATEC English or other online class.</p>
Levels:	<p>Firefighting I 8705</p> <p>Firefighting II 8706</p>
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Health and Medical Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	6 dual enrollment college credits through J. Sargeant Reynolds Community College and 2 dual enrollment college credits through PVCC.
Grade	9-12 Must be 16 years old on first day of school.

Course Title:	Automotive Service Technology I & II (2-year program)
Course Description:	<p>Automotive Service Technology is a two-year program for students who wish to become automotive technicians. The program is dual enrolled with J. Sargeant Reynolds Community College and has articulation agreements with several other institutions. The program is industry-certified through NATEF and Automotive Youth Educational System (AYES) program. The program</p>



	<p>includes the study of engine repair, engine performance, electricity/electronics, automatic transmission, clutch and manual transmission, HVAC (air conditioning), brakes, steering, and suspension. In the classroom students will study automotive theory and put the theory into practical use in the auto lab. Automotive manufacturers and local dealerships sponsor the Automotive Youth Education System (AYES) at CATEC. This program offers employment opportunities with dealerships and independent repair shops for students who qualify and are selected during the spring semester of the first year. The program prepares graduates to pursue the Virginia State Inspector's License.</p> <p>Articulation Agreements: Universal Technical Institute (UTI), Lincoln Technical Institute/ Nashville Auto Diesel College, and University of Northern Ohio</p> <p>Certifications: NATEF and AYES</p>
Prerequisite(s):	
Corequisite(s):	
Credit:	<p>I: 2-3 Elective Credits; II: 2-3 Elective Credits*; 1-2 Verified Credits (certification, completer)</p> <p>*2 elective credits if taken in conjunction with a CATEC English or other online class.</p>
Levels:	<p>I 8506</p> <p>II 8507</p>
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Trade and Industrial Education
Offered at:	CATEC (available to all students)
Dual Enrollment:	20 dual enrollment college credits at J. Sargeant Reynolds Community College.
Grades	10-12

Course Title:	Auto Body Technology I, II, & III (2-year program)
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Course Description:	Students in this program are prepared for careers in this field through the use of the latest technologies and state of the art equipment. Throughout the program students gain knowledge of classroom and shop experience by working on vehicles. Selected students may be eligible for work experiences at local repair facilities. Successful completion of the two-year Auto Body program can reduce the two years of experience required for Automotive Service Excellence (ASE) certification by one year. This course is not recommended for individuals with respiratory or allergy problems. Certifications: Auto Body Assessment (NOCTI)
Prerequisite(s):	
Corequisite(s):	
Credit:	I&II: 2-3 Elective Credits; III: 2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.
Levels:	I 8679 II 8680
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Trade and Industrial Education
Offered at:	CATEC (available to all students)
Dual Enrollment:	
Grades	9-12

Course Title:	Building Trades I & II (1-year program)
Course Description:	This course will teach all the basic skills of the following trade areas: carpentry, residential wiring, residential plumbing, and masonry. Blueprint reading and drawing are introduced at the beginning of the course. The latter part of the course focuses on carpentry from framing to the finishing trim and roofing. Plumbing is introduced as it relates to the other trades during the year. Residential wiring emphasizes the basics of wiring a house and the National



	<p>Electrical Code. All aspects of residential construction from project planning, purchasing material to code compliance are taught. Emphasis will be placed on proper employability skills and attitude throughout both years of the course.</p> <p>Certifications: NCCER, Construction Academy Assessments</p>
Prerequisite(s):	
Corequisite(s):	
Credit:	<p>I&II: 2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.</p>
Levels:	<p>I 8515 II 8516</p>
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Trade and Industrial Education
Offered at:	CATEC (available to all students)
Dual Enrollment:	9 dual enrollment college credits at PVCC
Grades	9-12

Course Title:	Electrician I & II (1-year program)
Course Description:	<p>Students develop skills in the installation, operation, maintenance, and repair of residential, commercial, and industrial electrical systems. They also study electrical theory and mathematical problems related to electricity, navigate the National Electrical Code Book, select and install conductors, examine lighting, communication, and power systems, and work with conduit and raceways, panelboards, switchboards, grounding systems, and generators. Students who complete this program may qualify to receive credit for one year of Apprenticeship with the Department of Labor.</p> <p>Certifications: NCCER, Construction Academy Assessments</p>
Prerequisite(s):	
Corequisite(s):	



Credit:	I&II: 2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.
Levels:	I 8533 II 8534
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Trade and Industrial Education
Offered at:	CATEC (available to all students)
Dual Enrollment:	
Grades	9-12

Course Title:	Professional Culinary Arts I & II (2-year program)
Course Description:	Culinary Arts prepares students to enter employment in food service occupations or to pursue additional education in culinary school. Instruction focuses on sanitation, nutrition, food preparation, catering, purchasing, and inventory control in addition to food presentation and service. Our learning emphasis is academic, hands-on, and includes community-based service learning. Certifications: Commercial Foods Assessment (NOCTI); Serve Safe Certification Articulated credit available for Culinary Institute of Virginia
Prerequisite(s):	
Corequisite(s):	
Credit:	2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits taken in conjunction with a CATEC English or other online class.
Levels:	I 8521 II 8522
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Family and Consumer Science



Offered at:	CATEC (available to all students)
Dual Enrollment:	12 dual enrollment college credits with PVCC for Culinary II
Grades	9-12

Course Title:	Introduction to Culinary Arts
Course Description:	<p>This class is designed to introduce students to career options in the food service industry as well as to provide instruction in culinary techniques. This entry-level course provides an overview of the culinary industry and career options through work-study placement. Class time is used for teaching new concepts, reinforcing important skills, and assisting Culinary Arts II students with catering activities. Students who are successful in this class may have the option to take Culinary Arts I the following year.</p> <p>Note: Students must provide their own transportation to and from their work study site, if applicable.</p>
Prerequisite(s):	
Corequisite(s):	
Credit:	3
Levels: 8250
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Family and Consumer Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	
Grades	9-12 (SPED)

Course Title:	Cosmetology I & II (2-year program)
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Course Description:	Students in this program are eligible to take their State Board examination after successfully completing the two-year course. Students will gain theory and practical knowledge through instruction and lab participation. First-year students will participate in a job shadowing program and second-year students during their second semester will participate in an internship two days a week. Certifications: State Board of Cosmetology License
Prerequisite(s):	
Corequisite(s):	
Credit:	Cosmetology I: 2-3 Elective Credits*; Cosmetology II: 2-3 Elective Credits*; 1-2 Verified Credits (certification, completer) *2 elective credits if taken in conjunction with a CATEC English or other online class.
Levels:	I 8527 II. 8528
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Family and Consumer Science
Offered at:	CATEC (available to all students)
Dual Enrollment:	
Grades	9-12

Course Title:	Music Industry Technology
Course Description:	Working in conjunction with the Music Resource Center, this course is a survey of multiple aspects of the music industry and music technology. Students will be exposed to and have the opportunity to learn critical thinking skills as it pertains to consuming and creating music. In addition, students will get foundational vocational training in a number of music industry fields including but not limited to Digital Music Production, Audio Engineering, Audio Mixing Technology, Songwriting and Composition, Music Journalism and Live Sound Engineering.



Prerequisite(s):	
Corequisite(s):	
Credit:	2
Levels: 8640
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Business and Information Technology
Offered at:	CATEC (available to all students)
Dual Enrollment:	
Grades	9-12

Course Title:	CATEC Exploratory
Course Description:	Students will have the opportunity to experience a variety of CATEC classes. An individualized program is developed for each student and students spend 9 weeks in each of four program areas.
Prerequisite(s):	
Corequisite(s):	
Credit:	2-3 Elective Credits* *2 elective credits if taken in conjunction with a CATEC English or other online class.
Levels:9071
Department:	Career and Technical Education (CTE)
SubCategory:	CTE Trade and Industrial Education
Offered at:	CATEC (available to all students)
Dual Enrollment:	
Grades	9-12