What Do You Want To Do With The Rest of Your Life?

Looking for great opportunities?
Seeking a more-than-decent income?

Sounds like a health care career might be right for you. But how do you choose? And why is it important to start thinking about it now?

Choosing a career starts with a little self-examination. What are you good at? What do you like to do? What do you want to learn more about?

There are lots of great guides that can help you narrow down your career search. But why not start with the easy questionnaire on the next page? Read through the checklist, and put a mark by each of the job responsibilities that sounds interesting to you.

Then flip to any page of Virginia Health Careers 2012-2015 and get the scoop on one of the dozens of careers in health care — from sports medicine to sonography. Jump right in. Find out what you'd do, where you'd work and what kind of education and training you need. Now's the time to get started on your future!
Career Interest Checklist

“I was involved with a mentorship at MCV Hospitals and my high school. When I saw my mentor, he made me feel like, ‘if he can do it, I can do it.’ I also read everything I can get my hands on — anything I can learn about medicine I try to read.”

— Marcus Allen

- Operate emergency-response vehicles
- Structure programs to prevent sports injuries
- Set up computerized information networks for health facilities
- Teach skills to the disabled
- Help scientists with laboratory work
- Care for people who cannot care for themselves
- Work with children
- Study the structure of the human body
- Analyze drugs in a research laboratory
- Help diagnose diseases
- Repair biomedical or computer equipment
- Examine teeth and treat dental problems
- Diagnose and treat sick animals
- Conduct research to help control and cure diseases
- Perform or assist with surgery
- Answer questions at an information counter
- Examine, diagnose and treat eye conditions
- Transcribe medical dictation
- Direct fundraising for an organization
- Set up and operate machines to cut, grind and polish eyeglasses and contact lenses
- Plan and give physical therapy treatments
- Give hearing tests
- Prepare patients for examination by a physician
- Collect and analyze statistical data
- Inspect work areas to detect unsafe working conditions
- Maintain and improve environmental quality in institutions and the community
- Expose, process and interpret X-rays
- Design and implement community health programs
- Assess individual nutritional requirements
- Manage the total or partial operation of a health care facility
- Operate medical diagnostic equipment
- Administer fiscal operations, such as budgeting, accounting, payroll reporting and billing
- Coordinate disaster assistance or hazardous material relief
- Design and fit artificial body parts
- Be an advocate for clients and families in institutions and public programs
So which of the job responsibilities on the checklist fit with a health care career? All of them! To find out more, read on in Virginia Health Careers or go to our website at www.ChooseVirginia.net. You can also get more information by contacting any of the resources listed below.

**Virginia Career VIEW**

Virginia Career VIEW puts it all together for students, parents and professionals. Career Search has information on more than 300 different careers for you to explore. For each career, you can find a detailed job description, education requirements, financial aid options, salaries, employment opportunities and the job outlook for the future. Mainly for grades K-8, it does offer some assistance for parents, guidance counselors and professionals — from help with your job search to an academic and career planning tool kit.


**Virginia Education Wizard**

Virginia Education Wizard helps you choose a career, get the information you need to pursue your career, find the college that is right for you, pay for college, transfer from a community college to a university and get answers to your questions about your future.

Visit their website at www.vawizard.org.

**Career Guide for Virginia**

This Career Guide for Virginia is produced by the Virginia Employment Commission to assist students and any other person who is looking for information to aid them in researching and finding a new career. Information is provided on a variety of career choices, how to plan for a career, education needed to qualify for various jobs, how to apply and interview for jobs, and much more. This publication was formerly published as the Mid-Atlantic Guide to Information on Careers.


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“In high school, I took the harder science and math classes and made the best grades I could to prepare myself. Sometimes that meant not going out with my friends because I had to concentrate on my goal. Plus, I played three varsity sports, which took a lot of determination and hard work. But it builds teamwork and makes trust, which will really help me to become a doctor.”

— Courtney Hitchings

**Other Resources**

Contact a career counselor at any public or private high school, college, university or community college.

Check with the reference librarian at your local library, or stop by an adult education center or a Virginia Employment Commission office.
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The career information in this manual is arranged according to fields of study. If you have a particular interest, this “one-stop shopping” approach will help you learn about a variety of related career opportunities in one section.

**Career Listings**

Each of the career listings describes a health profession and its work activities, work setting, salary information and educational requirements. Each listing also includes Virginia’s health professions schools and training programs and relevant professional associations.

**Hot Tips for the College Bound (see pages 98-101)**

When to apply? Which tests to take and when to take them? What papers to save? This section answers these questions and many more with its timetable for college-bound students.

**Salary Information**

Each career description provides the average salary range for that occupation. Salary information is subject to considerable variability and is intended to serve as a general guideline only.

**Educational Institutions (see pages 104-119)**

This section contains a complete listing of health-related degrees offered by Virginia’s various colleges, hospitals, proprietary, and career and technical schools. It also provides contact information for each institution.

**Financial Aid (see pages 122-131)**

The availability of financial assistance for tuition and school expenses can often play a key role in your enrollment decisions. This manual contains extensive information on financial aid opportunities for health-related education.
CAREER OPPORTUNITIES

Clinical Laboratory Science

Clinical Laboratory Personnel
Cytotechnologist
Histology Personnel
Clinical Laboratory Science • Clinical Laboratory Personnel

Clinical laboratory scientists and clinical laboratory technicians (medical technologists and medical laboratory technicians) perform lab tests to detect, diagnose and treat diseases. Most clinical laboratory personnel work in hospital laboratories. Many are also employed by private physicians, medical groups, public health and environmental laboratories, research facilities, pharmaceutical and biomedical companies, universities, industrial medical laboratories, molecular diagnostic laboratories and the armed forces.

Clinical laboratory technicians:
• perform laboratory procedures on the fluids, cells and tissues of the body.
• use microscopes, sophisticated precision instruments and computers.
• collect blood specimens.
• inoculate culture media to identify bacteria.
• monitor the quality of tests and procedures.
• report unusual or abnormal results to clinical laboratory scientists or pathologists.

Clinical laboratory scientists:
• perform complex and standard laboratory analysis.
• evaluate the effect of a patient’s physiological condition on test results.
• confirm test results and provide physicians with data needed to determine the presence, extent, cause and treatment of disease.
• design, establish and monitor quality control programs to ensure accurate test results.
• manage financial operations, marketing and human resources to assure cost-effectiveness and quality of clinical laboratory services.
• conduct research for publication and evaluate published studies.
• use information management systems to report laboratory data.
• evaluate emerging diagnostics, test systems and interpretive algorithms.
• provide education and consultative interactions with members of the health care team, customer service and patients.

With additional education, clinical laboratory scientists and technicians can become specialists in the following areas: clinical chemistry, microbiology, hematology, immunology, blood banking, virology, molecular biology and laboratory safety.
Cytotechnologists are specially trained laboratory technologists who study the structure and function of cells in the human body. They examine cell samples under a microscope to detect any changes that could indicate a disease, such as cancer.

Cytotechnologists:
- prepare slides of cell samples for examination.
- examine smears of cell samples on slides using a microscope.
- detect and report abnormalities in the color, size and shape of cellular components and patterns.
- use automated equipment and instruments, including microscopes, to prepare samples for microscopic study.
- analyze test results with pathologists.
- may assist physicians with collecting cell samples.

Most cytotechnologists work in hospitals, clinics or private laboratories under the supervision of pathologists. Some may work in universities as professors or researchers.
Histology Personnel

**Average Salary Range**
$36,000-$52,450 (histotechnologist)

**Educational Requirements**
Students intending to pursue one of these careers should prepare by taking challenging high school courses in science, math and English.

Histotechnologists must either have a bachelor’s degree in an approved major (e.g. biology, chemistry) and one year of experience in a histopathology lab or complete a formal histotechnology educational program. They also must pass a national exam.

There are three paths to becoming a histologic technician. Students can earn a high school diploma and complete two years of clinical laboratory experience in histopathology. They can complete an accredited program in histotechnology, or they can earn an associate degree and complete one year of clinical lab experience in histotechnology. They also must pass a national exam. Certification may be obtained from the American Society for Clinical Pathology.

**Educational Institutions**
Old Dominion University – Histotechnology

**Professional Associations**
National Society for Histotechnology
10320 Little Patuxent Parkway, Suite 804
Columbia, MD 21044
(443) 535-4060
www.nsh.org

American Society for Clinical Pathology
33 W. Monroe St., Suite 1600
Chicago, IL 60603
(312) 541-4999
www.ascp.org

Histologists and histologic technicians prepare tissue samples for examination by a pathologist. Their work is an essential part of determining whether a patient is suffering from a disease dysfunction or malignancy.

Histotechnologists:
- prepare sections of human, animal or plant tissue for diagnostic, research or teaching purposes.
- process tissue and embed into paraffin blocks, then mount thinly-sliced tissue sections onto a glass slide for microscopic study.
- stain tissue to differentiate various structures or components. The slide is then evaluated by a pathologist or other scientific investigator.
- supervise and manage a histology laboratory.

Histologists/histotechnologists receive more training and perform more complex procedures than histologic technicians. Histologic technicians perform routine specimen preparation procedures and assist histologists.

Most histology personnel work in clinical pathology labs; some may work in veterinary, plant or marine histology, pharmacology, and medical or research laboratories.
CAREER OPPORTUNITIES

Counseling

Psychologist
Counselor
Genetic Counselor
Social Worker
Psychiatric Aide/Technician
Psychologists provide counseling and therapy to those suffering from emotional, learning or behavioral problems. Psychologists may work in a variety of settings, including schools, clinics, hospitals, private practice, colleges and universities, corporations, and government. They study behavior, cognitive functioning and emotions to understand, compare and explain people’s actions. There are clinical and counseling psychologists. Counseling psychologists study career development and also counsel people regarding career and educational choices. Educational and school psychologists do assessments to help diagnose problems school-aged children may have in regard to learning. There also are cognitive psychologists who study cognition and artificial intelligence.

Clinical and counseling psychologists:

- diagnose and treat psychological problems.
- collect data through interviews, case histories and observation.
- develop, select, administer and interpret psychological tests, surveys and experiments.
- counsel individuals, groups and couples.
- confer with parents, teachers, counselors, administrators and others.
- follow up to determine the effectiveness of treatment.
- conduct research.
- develop and evaluate mental health programs.
- consult with social, educational, medical or other agencies.
- write for professional and trade journals or other media.
- teach in colleges and universities.
- evaluate and consult with organizations.

Clinical and counseling psychologists may specialize in teaching, research, therapy, counseling, rehabilitation, community health, physiology and psychopharmacology. They may choose to concentrate their work on a specific age group or psychological problem.

- Clinical psychologists evaluate, diagnose and treat mentally and emotionally disturbed people and are concerned with preventing and treating mental and emotional disorders.
- Educational psychologists design, develop and evaluate techniques and materials to solve problems in education/training programs.
- School psychologists work with average, gifted and physically or mentally challenged students.
- Psychometrists or quantitative psychologists develop and implement intelligence, aptitude, achievement and other tests and analyze results.
- Developmental psychologists investigate emotional, mental, physical and social growth and development.
- Social psychologists study human relationships to understand individual and group feeling, thought and behavior.
- Experimental psychologists plan, conduct and analyze experiments in human and animal learning, thinking, motivation and perception.
- Industrial-organizational psychologists develop and apply psychological techniques to personnel administration, management and marketing problems.
Counselors aid people with social, educational, personal or medical problems. They help individuals and groups work with many issues, including mental health, school, college, career, employment, rehabilitation, aging, substance abuse and marriage and family conflicts. A variety of specialties are available within this field, including school and career counseling, employment counseling, rehabilitation counseling, mental health counseling and genetic counseling.

Generally, counselors:
- help individuals deal with problems such as addiction and substance abuse, family conflicts, suicidal feelings, stress, self-esteem, aging, and job or school concerns.
- use interviews and observations to determine problem areas and the focus for counseling.
- conduct personality, aptitude, achievement and psychological tests.
- formulate treatment plans and link clients with professional/community resources.
- conduct workshops in special subjects, such as assertiveness, career development, interpersonal relationships, stress management, coping skills and illness.
- maintain records of tests and counseling sessions.
- teach counselor education classes at universities and colleges.
- conduct research and report results in professional journals.
- work with other mental health specialists (psychiatrists, psychologists, social workers).

Counselors work in a variety of settings, including mental health clinics, health care facilities, job training and vocational rehabilitation centers, correctional institutions, residential care facilities, schools, public assistance agencies and substance abuse facilities. Many are employed in private practice and by health maintenance organizations and group practices.

**Average Salary Range**
$28,000-$55,000

**Educational Requirements**
Students interested in becoming counselors should prepare by taking the most challenging high school courses available in science, math, English and psychology, including advanced placement courses.

Counselors must have a minimum of a bachelor’s degree from an accredited college or university. To move beyond entry level, postgraduate training is usually necessary. Some fields require a master’s degree and licensure or certification by taking a national exam. Contact the National Board for Certified Counselors for the most recent requirements.

In Virginia, licensed professional counselors also must pass a written examination and have two years of postgraduate, full-time supervised experience.

**Educational Institutions**
Argosy University, Cambridge College of Massachusetts, Central Michigan University, The College of William & Mary, Eastern Mennonite University, George Mason University, George Washington University, Germanna CC, Locust Grove Campus, Hampton University, James Madison University, Liberty University, Longwood University, Lynchburg College, Marymount University, Old Dominion University, Radford University, Regent University, South University, University of Virginia, Virginia Commonwealth University, Virginia State University, Virginia Tech, Walden University

**Professional Associations**
Virginia Counselors Association
316 Hodges Cove Road
Yorktown, VA 23692
(800) 225-8103
(757) 766-5466
www.vcacounselors.org

Virginia Board of Counseling
Perimeter Center
9960 Maryland Drive, Suite 300
Henrico, VA 23233-1463
(804) 367-4610
www.dhp.state.va.us/counseling
Genetic counselors provide information and support to those who have birth defects or genetic (inherited) disorders, or who are at risk for such conditions. Genetic counselors may conduct research on the cause or treatment of disorders, or they may work to help families and individuals cope with the condition.

Genetic counselors:
• explain the likelihood that other family members will experience the same disorder.
• help individuals and families choose the best course of action, given the level of risk, family goals and ethical or religious values.
• evaluate family medical histories to determine the role of heredity.
• help individuals and families learn the facts and understand how to manage the disorder.
• perform research in the field of medical genetics and genetic counseling.
• educate and inform other health professionals and the general public.

Genetic counselors seeking further education may specialize in molecular, biochemical, medical or population genetics or psychology. They may specialize according to types of conditions, such as muscular dystrophy, cancer or mental retardation. They often work for universities, at research centers and teaching hospitals, and private health care practices, while some are employed by public health organizations or government agencies with specific genetic health interests.
Social workers work with individuals, families, groups, organizations and communities. They provide counseling and services to clients and work to improve social conditions. They often work with persons who are homeless, unemployed, disabled, seriously ill, mentally ill or handicapped. They assist people of all ages with emotional and physical illness, behavior management, substance abuse, child/spouse abuse and other issues.

Social workers:
- interview and counsel individuals, families and groups regarding their concerns.
- assess needs and then plan, develop, implement, oversee and evaluate programs and activities designed to meet those needs.
- help people obtain community services, education and job training.
- refer clients to other professional or community resources.
- coordinate or work with civic, religious, business and union organizations to combat social problems through community programs.
- advocate positive social and institutional change.

Social workers may specialize in areas such as health care; mental health; occupational, family and child welfare; adult and juvenile justice; aging studies; school social work; substance abuse; or physical disability.

Social workers find employment in a variety of settings, such as agency offices, hospitals, clinics, nursing homes, group homes, learning centers, schools, prisons, businesses or courts of law. Some work independently, while others practice as part of treatment teams that include physicians, psychiatrists, psychologists, nurses, therapists, teachers, clergy and other professionals.

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**Average Salary Range**

$26,000-$60,000

**Educational Requirements**

Students interested in becoming social workers should prepare by taking the most challenging high school courses available in science, English and math, including advanced placement courses.

Social workers must earn a bachelor’s or master’s degree from an accredited school of social work. In order to become licensed in Virginia, two years of post-master’s (M.S.W.) work experience and a passing score on an examination must be completed.

**Educational Institutions**

Christopher Newport University, Eastern Mennonite University, Ferrum College, George Mason University, James Madison University, John Tyler CC, Longwood University, Mary Baldwin University, Norfolk State University, Radford University, Saint Leo University, Chesapeake Campus, Virginia Commonwealth University, Virginia Intermont College, Virginia State University, Virginia Union University

**Professional Associations**

National Association of Social Workers
Virginia Chapter
5511 Staples Mill Road, Suite 303
Richmond, VA 23228
(804) 204-1339
www.naswva.org

National Association of Social Workers
750 First St., N.E., Suite 700
Washington, DC 20002-4241
(202) 408-8600
www.socialworkers.org
Psychiatric Aide/Technician

Average Salary Range
$14,000-$25,000 (aides)
$17,300-$27,700 (technicians)

Educational Requirements
Students interested in becoming psychiatric aides or technicians should take challenging high school courses, including science and English.

A high school diploma and postsecondary training are needed for employment as a psychiatric technician, but they are not necessary for a psychiatric aide.

Educational Institutions
Twin County Regional Hospital, Winchester Medical Center

Professional Associations
American Psychiatric Association
1000 Wilson Blvd., Suite 1825
Arlington, VA. 22209-3901
(703) 907-7300
www.psych.org

National Association of Health Care Assistants
501 E. 15th St.
Joplin, MO 64804
(800) 784-6049
www.nahcacares.org

Psychiatric aides and psychiatric technicians or direct services associates help care for mentally ill and substance abuse patients. They work under the direct supervision of mental health therapists, psychiatrists, social workers and nurses. Psychiatric technicians may specialize in certain areas, such as crisis intervention, substance abuse or children’s problems. They may work at crisis centers, substance abuse facilities, hospitals, social service centers, schools or community mental health programs. Their responsibilities vary according to the work setting and the individual’s level of training.

Psychiatric aides who work in hospital settings:
- help patients bathe, dress and complete other personal care activities.
- take patients to and from wards for examination and treatment.
- encourage patients to participate in social, educational and recreational activities.
- feed patients who need assistance.
- aid or restrain patients to prevent injuries to themselves or others.
- escort patients to off-site treatment, entertainment or enrichment activities.
- assist with patient orientation, housekeeping and security.

Psychiatric technicians usually have more formal education, training and responsibilities than psychiatric aides. In addition to the duties listed above, they also:
- interview patients and their families and record information.
- help develop and implement patient treatment plans.
- observe patients and report any meaningful actions to the staff.
- lead individual and group counseling sessions and therapy activities.
- teach skills that help patients resolve problems that affect daily living.
- check and record patients’ vital signs.
- assist supervisors in giving prescribed medication.
Dentists (credentialed as Doctor of Dental Surgery/D.D.S. or Doctor of Dental Medicine/D.M.D.) examine, treat and maintain the teeth, gums and other hard and soft tissues of the mouth and surrounding structures. They instruct patients about good oral health practices in order to prevent gum disease and tooth loss. Dentists also treat patients who have diseases, injuries or malformations of the teeth, gums and mouth.

Dentists:
- diagnose oral conditions.
- plan treatment to restore and maintain optimal oral health.
- administer anesthetics.
- locate and fill cavities and treat diseased gums.
- remove teeth that cannot be treated.
- replace missing teeth and fit and provide dentures.
- teach preventive care for teeth and gums.

There are nine recognized dental specialties:
- Endodontists diagnose and treat diseases and injuries of the dental pulp and other dental tissues that affect the vitality of teeth.
- Oral and maxillofacial radiologists evaluate head, neck and oral radiographs (X-rays) to aid in the diagnosis and treatment of oral and related disease.
- Oral and maxillofacial surgeons provide a broad range of diagnostic and treatment services for diseases, injuries and defects in the head, neck, face, jaws and associated structures.
- Oral pathologists study and research the causes and processional effects of diseases of the mouth.
- Orthodontists treat problems related to crooked teeth, missing teeth and other abnormalities to establish normal function and appearance.
- Pediatric dentists specialize in treating children from birth through adolescence. They also treat special handicapped patients beyond the age of adolescence.
- Periodontists diagnose and treat disease of the gums and the bones which support the teeth.
- Prosthodontists replace missing natural teeth with fixed or removable substitutes such as dentures, bridges and implants.
- Public health dentists specialize in preventing and controlling dental disease and promoting dental health through organized community efforts.

Some dentists teach, practice and/or conduct research in schools of dentistry. Others plan, organize and maintain dental health programs for public health agencies. Dentists may establish their own practices, become part of dental or medical groups or work in hospitals.
Dental hygienists provide education and clinical services to promote optimal oral health. They provide treatment to help prevent gum disease, tooth decay and other oral health problems. While they most typically work in private dental offices and clinics, dental hygienists also may find employment in health departments, hospitals, nursing homes, school districts, corporate settings, military services, correctional facilities or dental education facilities. This flexible career allows hygienists to choose to work anywhere from one to five days per week.

Responsibilities of dental hygienists include:
- patient screening procedures, such as review of the health history, dental charting and taking blood pressure, pulse and temperature.
- administering local anesthesia and nitrous oxide.
- making and developing dental radiographs (X-rays).
- removing calculus and plaque (hard and soft deposits) from the teeth.
- applying preventive materials to the teeth (e.g. fluoride and sealants).
- teaching patients appropriate oral hygiene techniques to maintain and improve oral health.
- counseling patients regarding good nutrition and its impact on oral health.
- counseling patients regarding the link of oral health to serious systematic health problems.
- performing office management duties.
- performing oral cancer screenings.
- performing screenings and hygiene examinations for the public.

Dental Hygienist

Average Salary Range
$55,220-$78,990

Educational Requirements
Students intending to pursue a career as a dental hygienist should prepare by taking challenging science, math, pharmacology and nutrition courses. Dental hygienists receive their education through accredited academic programs at community colleges or universities. The majority of community college programs take two years to complete but require prerequisites for entry into the program*, with graduates receiving associate degrees. An associate degree allows the hygienist to become eligible for a state and national licensure examination. University-based dental hygiene programs may offer bachelor’s and/or master’s degrees, each requiring at least two additional years of schooling. These advanced degrees are required for careers in teaching, research and public health programs.

In the state of Virginia, dental hygienists must obtain a license from the Board of Dentistry. In order to receive this license, applicants must be graduates of an accredited dental hygiene program, pass the dental hygiene examination given by the Joint Commission on Dental Examinations and pass a clinical examination. License renewal is granted annually upon completion of required continuing education.

*The average associate program requires 88 credit hours for graduation/degree.

Educational Institutions
Central Virginia CC, Germanna CC, Lord Fairfax CC, Northern Virginia CC, Old Dominion University, Thomas Nelson CC, Virginia Commonwealth University, Virginia Highlands CC (only online), Virginia Western CC, Wytheville CC

Professional Associations
Virginia Dental Hygienists’ Association
(888) RDH-VDHA • (888) 734-8342
www.vdha.net

American Dental Hygienists’ Association
444 N. Michigan Ave., Suite 3400
Chicago, IL 60611
(312) 440-8900
www.adha.org
Dental laboratory technicians make and repair dental appliances, such as dentures, crowns and braces. They usually work in dental offices and commercial laboratories.

Dental laboratory technicians:
- provide essential support service for the dental profession according to the dentist’s prescription or work request.
- fabricate dental models from dentist’s impressions in order to make repairs and fabricate crowns, bridges, partial and complete dentures and orthodontic appliances based on the dentist’s prescription.
- cast various dental alloys for fabrication of crowns, bridges and removable partial dentures.
- select and arrange artificial teeth using color charts and tooth illustrations for fabrication of complete and partial dentures.
- build, contour and fire dental porcelain in special vacuum porcelain ovens.
- polish alloys, acrylic and porcelain surfaces to clinical acceptability.
- bend and solder stainless steel wire to fabricate orthodontic retainers and various other orthodontic appliances.

Dental laboratory technicians can specialize in various aspects of the work prescribed by dentists and orthodontists: crown and bridge technicians, denture technicians, partial denture technicians, ceramic technicians and orthodontic technicians.

Most dental laboratory technicians work in commercial dental laboratories. Employment opportunities also are available in private dental offices, dental schools, hospitals and companies that manufacture dental prosthetic materials.
Dental assistants aid dentists with patient care. They work under the supervision of dentists and also may work with dental hygienists or dental laboratory technicians. Dental assistants usually work in private dental offices but also may work in public health clinics, dental schools, the armed forces and nursing homes.

Their functions are:

• assisting the dentist during a variety of dental procedures.
• helping patients feel comfortable before, during and after dental treatment.
• taking and developing film.
• asking about the patient’s medical history.
• preparing and sterilizing instruments and equipment for the dentist’s use.
• providing patients with instructions for oral care following surgery or other dental treatment procedures, such as the placement of a restoration (filling).
• teaching patients how to brush and floss properly.
• performing office management tasks that often require the use of a personal computer.
• communicating with patients and suppliers of dental and related products.

Average Salary Range
$25,000-$32,000

Educational Requirements
Students wishing to pursue a career in dental assisting should take challenging high school courses in science, math and English. Dental assistants receive their education and training through academic programs at community colleges, vocational schools, technical institutes or universities. Graduates of these programs receive certificates of completion. The length of the program varies with the school but is usually six to 12 months. Dental assistants can become certified by passing an examination administered by the Dental Assisting National Board.

In Virginia, dental assistants are required to be certified in radiology before placing and exposing radiological pictures. Formal one- or two-year programs are offered for dental assistants. Training also may be available on the job.

Educational Institutions
Academy of Dental Technology, Applied Career Training, ATC College, Centura College—Norfolk, Danville CC, E.C. Glass High School, ECPI University, Everest College, Fortis College, J. Sargeant Reynolds CC, Medical Careers Institute, Medical Learning Center, Practical Dental Assisting of Virginia Beach, Richmond Technical Center, Spotsylvania Vocational Center, Tidewater Tech, Virginia Beach Technical and Career Education Center, Virginia School of Dental Assisting, Virginia School of Technology, Washington County Technical Center

Professional Associations
Virginia Dental Association
3460 Mayland Court, Suite 110
Richmond, VA 23233
(804) 288-5750
www.vadental.org

American Dental Assistants Association
35 E. Wacker Drive, Suite 1730
Chicago, IL 60601-2211
(312) 541-1550
www.dentalassistant.org
CAREER OPPORTUNITIES

Health Administration, Information & Communications

Health Information Personnel
Health Sciences Library Personnel
Health Services Administrator
Nursing Home Administrator
Patient Relations Liaison
Average Salary Range
$30,000-$55,000

Educational Requirements
Students interested in health information careers should take high school courses in business, computer science, physiology, math, biology, English and chemistry.

Registered record administrators must earn a bachelor’s degree from an accredited college program and pass a certification exam.

Accredited record technicians must complete an associate degree from an accredited college program or through the American Health Information Management Association’s Independent Study Program and by passing a credentialing exam.

Certified coding specialists must have a high school diploma, on-the-job-training, a coding education from seminars or college classes and pass a certification program.

Educational Institutions
Applied Career Training, Beta Tech, Blue Ridge CC, Bryant & Stratton College, Career Connections Education Centers, Career Training Solutions, Center for Employment Training, Central Virginia CC, Centura College, Community Memorial Healthcenter, Danville CC, Eastern Shore CC, ECPI University-Newport News, Everest College, Fortis College, Greenville Memorial Hospital, Jefferson College of Health Sciences, J. Sargeant Reynolds CC, Lord Fairfax CC, Medical Careers Institute, Medtech Institute, Miller-Motte Technical College, Mountain Empire CC, National College of Business & Technology, Norfolk State University, Northern Virginia CC, Patrick Henry CC, Paul D. Camp CC, Piedmont Virginia CC, Richmond School of Health & Technology, Saint Leo University, Sanford Brown College, Sano School, Sentara Williamsburg Regional Medical Center, South University, Southside Virginia CC, Southwest Virginia CC, Stratford University, Tidewater CC, Tidewater Tech, Troy University, University of Mary Washington, University of Phoenix, Virginia College, Virginia Highlands CC, Virginia School of Technology, Virginia Western CC, Wytheville CC

Professional Associations
Virginia Health Information Management Association
c/o Cindy Phelps
213 S. Jefferson St., Suite 900
Roanoke, VA  24011
(540) 224-6836
www.vhima.org

American Health Information Management Association
233 N. Michigan Ave., 21st Floor
Chicago, IL 60601-5809
(312) 233-1100
www.ahima.org

The Professional Association of Healthcare Coding Specialists
218 E. Barons Ave. #354
Tampa, FL 33613
(888) 708-4707
www.pahcs.org

Health information managers (registered record administrators, accredited record technicians and certified coding specialists) are professionals who secure, analyze and integrate a variety of health care and financial data used to evaluate patient care, plan health care activities and help providers.

Registered Record Administrator (RRA):
• interacts with medical, financial and administrative staff to interpret data for patient care, research, statistical reporting and planning.
• protects the privacy of patients’ health information.

Accredited Record Technician (ART):
• examines medical records for accuracy.
• reports patient data for reimbursement.
• creates disease registries for researchers.

Certified Coding Specialist (CCS):
• assigns a code to each diagnosis and procedure found in a patient’s record.
• reports codes to insurance companies to pay for a patient’s medical expenses.

Health information personnel may work in hospitals, clinics, HMOs, insurance companies, law firms, consulting firms, physician offices, nursing homes, health data organizations and other settings.
Health sciences librarians and health sciences library technicians collect, organize, evaluate and help others to obtain information. They provide physicians, nurses, allied health personnel, and other health care professionals, administrators, researchers, students and consumers with information needed for patient care, education, biomedical research and health care administration.

Health sciences librarians:
- select and purchase books, journals, audiovisuals and computer software and license electronic resources.
- organize materials into manageable collections.
- develop and maintain catalogs, which are often computerized.
- set up computerized information networks for institutions.
- develop and manage websites and select quality websites for customized Web pages.
- plan and manage budgets and personnel.
- locate information for health professionals, students, patients and their families, and the general public.
- instruct individuals on how to use the library and information resources.
- supervise health sciences library technicians.

Health sciences library technicians:
- assist in organizing the library’s collections and in providing services to users.
- record and index journal issues.
- pay invoices for information resources.
- help students use computers.
- update information on websites.
- answer questions at information desks.

Health sciences library personnel may work in academic medical centers, community hospitals, pharmaceutical companies, research facilities, consumer health libraries, government agencies, associations and foundations.

Average Salary Range
$40,000-$88,000 (librarians)
$16,500-$27,500 (technicians)

Educational Requirements
Students interested in working in the health sciences library field should select challenging high school courses in science, English, math and computer skills.

Health science librarians should have a bachelor’s degree in a life science and a master’s degree from an accredited library and information science school. Many graduate library schools offer special courses or internships in health sciences librarianship.

Health sciences library technicians’ education and training requirements vary depending upon the employer. Some community colleges offer two-year educational programs for library technicians. In some cases on-the-job training and/or additional course work is required.

Educational Institutions
Several universities in Virginia offer certification and/or a master’s degree in education in school media librarianship, but none offer a general health sciences librarianship.

The Catholic University of America offers a master’s in its School of Library and Information Science. The school has been fully reaccredited by the Committee on Accreditation of the American Library Association.

Professional Associations
Medical Library Association
65 E. Wacker Place, Suite 1900
Chicago, IL 60601-7246
(312) 419-9094
www.mlanet.org

American Library Association
50 E. Huron
Chicago, IL 60611
(800) 545-2433
www.ala.org

Special Libraries Association
331 S. Patrick St.
Alexandria, VA 22314-3501
(703) 647-4900
www.sla.org

Health Administration, Information & Communications • Health Sciences Library Personnel
Health Services Administrator

Average Salary Range
$35,000-$165,000

Educational Requirements
Students intending to pursue a career in health services administration should prepare by taking challenging high school courses in science, math, business and English, including advanced placement courses. A graduate degree in health or business administration and significant experience are preferred but not necessary.

Educational Institutions
Argosy University, Central Michigan University, EDI University, George Mason University, Jefferson College of Health and Sciences, Mary Baldwin College, Marymount University, Norfolk State University, Park University, Roanoke College, Saint Leo University, South University, Stratford University, Strayer University, Troy University–Norfolk, University of Maryland–University College Ft. Belvoir, University of Northern Virginia, University of Phoenix, Virginia Commonwealth University, Walden University, Webster University–Ft. Belvoir

Professional Associations
Virginia Health Care Association
2112 W. Laburnum Ave., Suite 208
Richmond, VA 23227
(804) 353-9101 • www.vhca.org

American Health Care Association
1201 L St. N.W.
Washington, DC 20005
(202) 842-4444 • www.ahca.org

Virginia Hospital & Healthcare Association
4200 Innsbrook Drive, Suite 203
Glen Allen, VA 23060
(804) 965-1277 • www.vhha.com

American Hospital Association
155 N. Wacker Drive
Chicago, IL 60606
(312) 422-3000 • www.aha.org

American Hospital Association
325 7th St., N.W.
Washington, DC 20004-2802
(202) 638-1100 • www.aha.org

American College of Healthcare Executives
1 N. Franklin, Suite 1700
Chicago, IL 60606-3529
(312) 424-2800 • www.ache.org

Central Virginia Healthcare Executive Group
VCU Department of Health Administration
P.O. Box 980203
Richmond, VA 23298-0203
(540) 988-0803 • www.cvheg.org

Health services administrators typically direct and coordinate the functions and staff activities at hospitals, health systems and other health care organizations. They oversee organizational strategy, financial planning, personnel administration, purchasing, public relations, contract negotiations and patient services.

Health services administrators:
• maintain and develop institutional standards, policies and procedures.
• administer fiscal operations, such as budgeting and accounting.
• plan and oversee marketing activities for services.
• direct medical, nursing, allied health, technical, volunteer, clerical, service and/or maintenance departments and staffs.
• oversee hiring and training.
• develop or expand programs/services, such as research or rehabilitation.
• serve as liaison to community and business leaders and the medical staff.
• represent the organization at community events and meetings.

In small organizations, health services administrators direct daily operations. In larger hospitals and health systems, they supervise others responsible for these functions.

Health services administrators may work in health maintenance organizations, preferred provider organizations, health insurance companies, voluntary health agencies, clinics, medical practices, nursing homes and other specialized medical facilities.

Some health services administrators are physicians who have received additional training in administration; others have backgrounds in business or nursing.
Nursing home administrators plan, organize and direct the operations of nursing homes or other long-term care facilities.

Nursing home administrators:
- direct medical, nursing and technical personnel and fiscal management activities.
- maintain and develop standards, policies, programs and operating procedures.
- direct fiscal operations, such as budgeting and accounting, and establish rates for services.
- direct employee hiring and training.
- compile, analyze and prepare reports.
- speak at community gatherings and conduct public relations and marketing activities.
- meet with families of individuals seeking admittance to a nursing home.

Most nursing home administrators work in a nursing home; others may work in the business offices of a large nursing home corporation that manages several facilities. They are accountable to a proprietor or governing board. Some administrators may also be involved in teaching, research or other professional activities.

Educational Requirements
Students intending to pursue a career as a nursing home administrator should prepare by taking the most challenging high school courses available in science, math, business and English.

In Virginia, licensed nursing home administrators must hold a bachelor’s degree or higher in nursing home administration or in a health administration field. They also must have completed a 400-hour program in nursing home administration and a national exam. Some nursing home administrators also are trained as physicians, registered or licensed practical nurses or allied health professionals.

Nursing home administrators also can qualify by successfully completing an Administrator-in-Training (AIT) program as specified by the certifying board. The 2,000-hour program must be completed in 24 months and a national examination must be completed successfully.

Additional information on qualifications for licensure is available on the Department of Health Professions website at www.dhp.state.va.us/nha.

Educational Institutions
- Hampton University, George Mason University, Mary Baldwin College, Old Dominion University, Virginia Commonwealth University (See Health Services Administrator, Page 20)

Professional Associations
- Virginia Health Care Association
  2112 W. Laburnum Ave., Suite 206
  Richmond, VA 23227
  (804) 353-9101
  www.vhca.org

- Virginia Association of Nonprofit Homes for the Aging
  4201 Dominion Blvd., Suite 100
  Glen Allen, VA 23060
  (804) 965-5500
  www.vanha.org

- American Health Care Association
  1201 L Street, N.W.
  Washington, DC 20005
  (202) 842-4444
  www.ahca.org

- Virginia Association of Area Agencies on Aging
  24 E. Cary St., Suite 100
  Richmond, VA 23219
  (804) 644-2804
  www.vaaaaa.org

Average Salary Range
$50,000-$100,000

Average Salary Range
$50,000-$100,000

Health Administration, Information & Communications • Nursing Home Administrator
Patient relations liaisons work with hospital patients and their families to address any concerns or special needs. They also work directly with administrators to solve patient and family problems.

Patient relations liaisons:
• act as intermediaries to hospital administrators on behalf of patients and their families.
• collect data about patient care problems and report it to the appropriate departments.
• evaluate patient satisfaction and make suggestions for changes or improvements.
• investigate and direct inquiries and complaints to the appropriate hospital staff.
• interpret the hospital philosophy, policies, procedures and services to patients, their families and visitors.
• educate health care professionals on ways to humanize patients’ hospital experiences.
• collaborate with hospital risk management program personnel to ensure better service.

Patient relations liaisons may specialize and work in a particular health care setting, such as a nursing home, children’s hospital or clinic. They also work in public health programs.
CAREER OPPORTUNITIES

Medicine

Physician
Family Physician
Internist
Pediatrician
Podiatrist
Physician Assistant
Related Fields
Physicians diagnose and treat human diseases and injuries and practice preventive medicine. Some also conduct research and/or teach in medical schools. There are currently five medical schools in Virginia (listed in the left-hand sidebar) – four allopathic schools with physicians receiving M.D. degrees or Doctor of Medicine and one osteopathic school having physicians receiving D.O. degrees or Doctor of Osteopathic Medicine.

Osteopathic medicine is the philosophy and system of alternative medical practice emphasizing the interrelationship between structure and function of the body and recognizing its ability to heal itself using the practitioner to facilitate that process. Allopathic medicine is the practice of conventional medicine that uses pharmacologically active agents or physical interventions to treat or suppress symptoms or pathophysiologic processes of diseases or conditions. Allopathic medicine often refers to the broad category of medical practice that is sometimes called Western medicine, biomedicine, evidence-based medicine or modern medicine.

Specialists diagnose and treat illnesses, conditions and/or injuries related to a specific branch of medicine or part of the human body. Descriptions of some medical specialties are:

- Anesthesiologists administer anesthesia (numbness or sleep) to patients who undergo surgery.
- Cardiologists treat heart diseases.
- Dermatologists treat skin conditions.
- Gastroenterologists diagnose and treat disorders of the digestive system.
- Geriatricians specialize in the specific health care needs of the elderly.
- Gynecologists educate patients in the prevention and treatment of disorders of the female reproductive system.
- Neurologists specialize in brain and central nervous system disorders.
- Obstetricians care for pregnant women and deliver babies.
- Oncologists treat patients with cancer.
- Ophthalmologists diagnose and treat eye disorders.
- Orthopedists educate patients in the prevention of skeletal deformities or ailments and treat these ailments.
- Osteopathic physicians emphasize a whole-person approach to patient care that emphasizes wellness and prevention. D.O.s often use a system of hands-on diagnosis and treatment called osteopathic manipulative medicine that can reduce pain, increase range of motion and contribute to overall health by improving the body’s structure and functions.
- Pathologists interpret and diagnose changes in tissue caused by disease.
- Psychiatrists specialize in physical and rehabilitative medicine.
- Psychiatrists educate patients in the prevention of mental illnesses, and study and treat mental illnesses.
- Pulmonologists treat lungs and respiratory systems.
- Sports medicine physicians treat and help prevent athletic injuries.
- Surgeons perform operations to correct deformities, repair injuries, treat diseases and improve functions of patients. Among the many subspecialties are neurosurgery (brain), orthopedic surgery (bones) and cardiothoracic surgery (hearts and lungs).
- Urologists treat urinary tract disorders.
- Radiation oncologists oversee care of patients undergoing radiation therapy.
Family physicians are physicians educated and trained in family practice — a broadly encompassing medical specialty. Family physicians provide continuing and comprehensive medical care, health maintenance and preventive services to each member of the family, regardless of sex, age or type of problem — biological, behavioral or social.

Family practice is a three-dimensional specialty, incorporating the dimensions of knowledge, skill and process. While knowledge and skill may be shared with other specialties, the family practice process is unique. At the center of this process is the patient-physician relationship. It is the extent to which this relationship is valued, developed and nurtured that distinguishes family practice from all other specialties.

Family physicians:

- teach patients about their own health and wellness needs, as well as those of their children. Also, they track children’s growth and development.
- treat patients suffering from common acute health problems such as respiratory infections, flu, sports injuries, back pain and minor trauma (lacerations and sprains).
- examine and diagnose patients using clinical skills, medical equipment, instruments and tests.
- prescribe and administer drugs and treatments.
- immunize patients against preventable and communicable diseases.
- provide ongoing treatment for those with chronic illnesses such as diabetes, hypertension, obesity, asthma, arthritis or cardiac conditions.
- care for patients with complex medical problems, either alone or in consultation with medical or surgical subspecialists.
- Perform outpatient procedures, such as dermatologic procedures, minor surgeries, etc.

Most family physicians work in private offices, hospitals and clinics. They may work alone or with other physicians and are usually aided by nurses, technicians and other support personnel.
Internists are physicians who provide primary care and/or subspecialty care (in fields such as cardiology, gastroenterology, endocrinology, pulmonology, etc.) to adolescent, adult and geriatric patients. They provide continuous comprehensive medical care for acute and chronic diseases and preventive and wellness care. Internists specialize in the diagnosis and nonsurgical treatment of adult patients.

Internists:
- diagnose and treat those with serious diseases, such as diabetes, heart disease and AIDS.
- treat common health problems, such as hypertension, pneumonia or influenza.
- prescribe and administer drugs and treatments.
- immunize patients to protect them from preventable diseases.
- educate patients for healthier lives.
- may be general internists who provide comprehensive medical care for all adults or subspecialty internists who have an expertise in a particular area, such as infectious diseases or cardiology.

Internists may work in private practice, hospitals and/or clinics. Many also are involved in teaching and research. The demand for trained internists is rapidly increasing because of their broad base of medical knowledge.
Pediatricians are physicians who specialize in the care and treatment of infants, children, adolescents and young adults, from birth to age 21. They are expert in all areas of a child’s physical and emotional growth and development.

Pediatricians:
• teach parents about the health and wellness needs of their children, including regular examinations, immunizations, nutrition and physical, mental and emotional development.
• track each child’s growth and development and take action if problems arise.
• treat common childhood illnesses and injuries, such as ear infections and minor lacerations.
• examine and diagnose patients, sometimes using medical equipment, instruments and tests.
• prescribe and administer drugs and treatments.
• provide ongoing treatment and monitoring for those with chronic illnesses such as diabetes, kidney disease or cardiac conditions.
• immunize children to protect them from preventable, communicable diseases, such as chicken pox, polio, measles and hepatitis.
• care for children with complex medical problems, alone or in consultation with pediatric medical subspecialists or surgical specialists.

Most pediatricians work in private offices, hospitals and clinics. They may work alone or with other physicians and are usually aided by nurses, technicians and clerks. They also are involved in teaching and research in academic centers, as well as in the guidance of community health care in national, state and local governments and agencies and in advocacy for children and families.
A podiatrist (Doctor of Podiatric Medicine) specializes in the prevention, diagnosis and treatment of foot and ankle disorders. The podiatrist works closely with other health professionals to treat and control disease and often becomes a vital and sometimes lifesaving link in the health care team. Some podiatrists specialize in areas ranging from sports medicine to podiatric surgery to orthopedics or biomechanics.

Podiatrists:
- diagnose foot ailments, such as tumors or ulcers, fractures, skin or nail diseases, and congenital or acquired deformities.
- treat deformities, such as flat or weak feet and foot imbalance, using mechanical and electrical methods.
- treat conditions, such as corns, calluses, bunions, heel spurs, ingrown toenails, arch problems, shortened tendons, cysts, bone disorders and abscesses, if necessary, by surgical methods.
- fit corrective inserts called orthotics, design plaster casts and strappings to correct deformities and design custom-made shoes.
- design flexible casting for immobilization of foot and ankle fractures, sprains or other injuries.
- design mechanical devices to correct walking patterns and balance and to promote the overall ability to move about more efficiently and comfortably.
- refer patients to other physicians when symptoms observed in the feet indicate disorders such as diabetes, arthritis, heart disease or kidney disease.

Most podiatrists work in private practice, with hospital privileges for surgery and consulting.
A physician assistant (PA) is authorized to practice medicine as part of a team with a physician. PAs conduct physical exams, diagnose and treat illness, order and interpret tests, counsel on preventive health care, assist in surgery, and write prescriptions.

Physician assistants:
- take detailed medical histories and perform physical examinations.
- order laboratory tests, X-rays, EKGs and other diagnostic studies.
- diagnose patients and decide treatment plans.
- prescribe medications.
- initiate therapy or treatment.
- suture wounds, assist in surgery, apply and remove casts, and perform other therapeutic procedures.
- make hospital rounds to observe and record patients’ progress and order or carry out indicated therapy.
- provide continuous medical care to patients at home, in nursing homes or other extended health care facilities.
- coordinate and supervise other health care professionals.
- counsel patients and their families on preventive care, medical problems, and prescribed treatments and drugs.

Physician assistants may have specialized training in geriatrics, surgery, neonatology, pediatrics, emergency medicine, or in almost any medical specialty or sub-specialty. The duties of physician assistants are determined by the physician/PA team, by the physician and by state and federal law. PAs practice with autonomy and may work alone or as part of a medical team.

Average Salary
$76,000-$116,000

Educational Requirements
Students wishing to pursue a physician assistant career should take the most challenging high school courses available in science, math and English, including advanced placement courses.

Licensed physician assistants must complete approved and accredited courses of study. Applicants also must pass examinations given by the National Commission for Certification of Physician Assistants.

To enter a program for physician assistants, students often are required to have completed one or more years of direct patient care. The curriculum includes courses in the basic medical sciences along with clinical clerkships.

Educational Institutions
Eastern Virginia Medical School, James Madison University, Shenandoah University

Professional Associations
Virginia Academy of Physician Assistants
250 W. Main St., Suite 100
Charlottesville, VA 22902
(434) 977-3716
www.vapa.org

American Academy of Physician Assistants
2318 Mill Road, Suite 1300
Alexandria, VA 22314
(703) 836-2272
www.aapa.org
Physicians and other primary care providers often depend upon a variety of trained technologists, aides and assistants. Descriptions of some follow.

**Surgical Assistant**

Surgical assistants aid the surgeon in performing surgical procedures, positioning patients for surgery, draping and preparing the operative site, and retracting and exposing the operative field during the procedure. The surgical assistant secures the best possible exposure of the anatomy incident to the operative procedure. The skilled surgical assistant anticipates the moves and needs of the surgeon.

Surgical assistants:
- confirm procedures with surgeons.
- determine specific equipment needed per procedure.
- review permit to confirm procedure and special needs.
- clamp and cut tissue per surgeon’s directive.
- maintain integrity of sterile field.
- perform any other duties or procedures incident to the surgical procedure deemed necessary and as directed by the surgeon.

The surgical assistant also performs preoperative and postoperative duties to better facilitate proper patient care. During the operation, the surgical assistant works under the direction and supervision of the surgeon and in accordance with hospital policy and appropriate laws and regulations. Certified surgical assistants assist in a variety of surgical specialties.

**Surgical Technologist** (also called operating room technician)

These technologists assist surgical teams before, during and after surgery. Many have training and experience as nurses’ aides or licensed practical nurses.

Specific duties include:
- helping surgical teams scrub and put on gloves and masks.
- washing/shaving and preparing patients for surgery.
- sterilizing equipment and operating rooms.
- passing instruments to the surgical team.
- helping hold retractors and cutting sutures.
- operating equipment, such as lights and suction machine.
- taking inventory of tools used during surgery (e.g. sponges, needles).
Perfusionist

Perfusionists set up and operate heart-lung machines and monitor patients’ circulation during cardiac surgery. To be accepted in a perfusion training program, students need a background in the biological sciences or training in medical technology, respiratory therapy or nursing. (No perfusionist training programs are offered in Virginia at this time.)

Medical Assistant

Medical assistants aid physicians with patient care and office administration. Specific duties may include:

- recording patients’ vital signs and measurements.
- scheduling appointments.
- coordinating records with insurers, hospitals and labs.
- performing general secretarial and bookkeeping tasks.
- preparing treatment rooms for exams.
- helping operate some medical equipment.
- giving non-intravenous injections and performing venipuncture.
- performing basic laboratory procedures, such as urinalysis and pregnancy tests.
- performing electrocardiography, first aid and CPR.

Educational Institutions, cont.

Medical Assistant

- Applied Career Training, ATC College, Beta Tech, Bryant & Stratton College, Career Connections Education Center, Career Training Solutions, Central Virginia Medical Education Center, Centura College, Eastern Shore CC, Everest College, Faks Allied Health Education Center, Fortis College, Gibbs College, Lafayette High School, Medical Careers Institute, Medical Learning Center, Miller-Motte Technical College, Sanford-Brown College, Sanz School, Skyline College, Stratford University, Tidewater CC, Tidewater Tech, Virginia College, Virginia Highlands CC, Virginia School of Nursing and Medical Institute, Virginia School of Technology

Professional Associations

- National Surgical Assistant Association
  2615 Amesbury Road
  Winston-Salem, NC 27103
  (336) 768-4443 • (888) 633-0479
  www.nsaa.net

- Virginia Association of Surgical Assistants
  700 West Olney Road
  Norfolk, VA 23507-1607
  (757) 446-6100

American College of Surgeons

633 North Saint Clair St.
Chicago, IL 60611-3211
(800) 621-4111
www.facs.org

Association of Surgical Technologists

6 W. Dry Creek Circle, Suite 200
Littleton, CO 80120
(303) 694-9130 • (800) 637-7433
www.ast.org

American Academy of Cardiovascular Perfusion

515A E. Main St.
Annville, PA 17003
(717) 867-1485
www.theaacp.com

American Association of Medical Assistants

20 N. Wacker Drive, Suite 1575
Chicago, IL 60606
(312) 899-1500
www.aama-ntl.org

American Board of Surgical Assistants

26221 E. Kettle Circle
Aurora, CO 80016-2020
(303) 617-8345 • (677) 617-8345
www.absa.net
CAREER OPPORTUNITIES

Nursing

Nurse Practitioner
Nurse Midwife
Nurse Anesthetist
Clinical Nurse Specialist
Registered Nurse
Licensed Practical Nurse
Nursing Assistant/Home Health Aide/Home Care Aide
Nurse Practitioner

Average Salary Range
$71,000-$84,000

Educational Requirements
Students interested in becoming certified nurse practitioners should take challenging high school courses in science, math and English, including advanced placement courses.

To become a nurse practitioner, students must first complete education and training to be a baccalaureate-prepared registered nurse. In addition, they must complete an accredited master’s degree program, which includes 24 months of course work and 800 hours of clinical experience, and pass certification examinations. Nurse practitioner programs are graduate-level programs.

Educational Institutions
Eastern Mennonite University, George Mason University, Hampton University, James Madison University, Jefferson College of Health Sciences, Marymount University, Old Dominion University, Radford University, Shenandoah University, University of Virginia, Virginia Commonwealth University

Professional Associations
Virginia Council of Nurse Practitioners
250 W. Main St., Suite 100
Charlottesville, VA 22902
(434) 977-3716
www.vcnp.net

Virginia Nurses Association
7113 Three Chopt Road
Richmond, VA 23226
(804) 282-1808
www.virginianurses.com

American Academy of Nurse Practitioners
P.O. Box 12846
Austin, TX 78711
(512) 442-4262
www.aanp.org

American College of Nurse Practitioners
225 Reinekers Lane, Suite 525
Alexandria, VA 22314
(703) 740-2529
www.acnpweb.org

Nurse practitioners are advanced practice registered nurses whose advanced training and graduate education enable them to provide high-level primary care to people of all ages. They work in collaboration with physicians and other health professionals. With the increased need for primary care providers, there is a particularly high demand for nurse practitioners nationally and across the commonwealth of Virginia.

Nurse practitioners:
• take detailed health histories and perform complete physical exams.
• diagnose patients and decide treatment plans.
• treat common acute conditions, illnesses or minor injuries.
• provide health management of chronic conditions, such as diabetes.
• prescribe medications.
• counsel patients and their families on preventive care, health problems and treatment alternatives.

Nurse practitioners sometimes specialize in one or more areas, such as acute care, pediatrics, adult, family, women’s, geriatric or school health. Depending on their interests, nurse practitioners may work in private medical offices, clinics, schools, health maintenance organizations, health departments or hospitals. Some have their own private practices.
Nurse midwives are advanced practice registered nurses who have additional education in the discipline of midwifery. They provide women’s health care that focuses particularly on common primary care issues, such as family planning and gynecological needs of women during pregnancy and childbirth, the postpartum period, and the care of the newborn. Certified nurse midwives practice within a health care system that provides consultation, collaborative management or referral as indicated by the health status of the client.

Nurse midwives:
- provide primary care to women, including reproductive health services such as pelvic and breast exams and Pap smears.
- manage the care of women during pregnancy and labor and attend to women during childbirth.
- examine newborns and provide information on infant care and nutrition.
- educate women regarding contraception, conception, personal care, nutrition, exercise, childbirth methods and other reproductive health issues.
- consult, collaborate with and refer to physicians as the woman’s and/or fetus’ condition warrants.

Nurse midwives work in settings ranging from hospitals to birthing centers and private homes. They work in private office practices, health maintenance organizations, hospitals, public health departments, community health centers and with the Indian Health Service.
Nurse anesthetists are advanced practice registered nurses who administer anesthetics to patients undergoing medical, dental, surgical and obstetrical procedures. They work in collaboration with physicians or dentists, combining professional nursing skills with the science of anesthesia. Nurse anesthetists are an important part of the surgical team.

Nurse anesthetists:
• explain upcoming medical procedures and anesthesia to patients.
• assemble and test medical equipment needed to administer anesthetics.
• prepare prescribed solutions and start intravenous injections.
• administer prescribed anesthetics and medications.
• observe patients to ensure that anesthesia is maintained.
• monitor patients for warning signs during anesthesia and assist attending physicians with emergency procedures, if necessary.
• record each patient’s condition (as well as all anesthetics and medications administered) before, during and after surgery.

Nurse anesthetists may work in hospitals, emergency rooms, dental offices and outpatient surgery facilities.
Clinical nurse specialists are advanced practice registered nurses whose advance training and graduate experience enable them to provide high-level care to people of all ages in both hospital and community settings. They work in collaboration with physicians and other health care providers.

Clinical nurse specialists:
• manage the care of complex and/or vulnerable populations.
• facilitate change and innovation within health care systems.
• educate and support interdisciplinary staff.

Clinical nurse specialists focus on one or more areas, such as pediatrics, mental health, perinatal care, oncology or gerontology. They may work in hospitals, clinics, health maintenance organizations or in private practice.

Average Salary Range
$70,000-$110,000

Educational Requirements
Students interested in a career as a clinical nurse specialist should take challenging high school courses in science, math and English, including advanced placement courses.

To become a clinical nurse specialist, students must first complete education and training to be a baccalaureate-prepared registered nurse. Then they must complete an accredited nurse practitioner program that prepares clinical nurse specialists.

Educational Institutions
University of Virginia, Virginia Commonwealth University

Professional Associations
Virginia Nurses Association
7113 Three Chopt Road
Richmond, VA 23226
(804) 282-1808
www.virginianurses.com

National Association of Clinical Nurse Specialists
100 North 20th St., 4th Floor
Philadelphia, PA 19103
(215) 320-3881
www.nacns.org
Average Salary Range
$40,000-$65,000

Educational Requirements
Students intending to pursue a career as a registered nurse should take challenging courses in science, math and English, including advanced placement courses.

Educational preparation to be a registered nurse is offered in three different types of programs in Virginia: four-year colleges offering baccalaureate degrees; community and junior colleges offering associate degrees; and hospital-based schools offering diplomas. Graduates of all three programs are eligible to take the national licensure exam, NCLEX-RN, to become a registered nurse.

A baccalaureate degree is required to enter graduate programs in nursing, which prepare advanced practice nurses, nursing administrators and nurse educators.

Educational Institutions

Virginia community colleges
Blue Ridge CC, Dabney S. Lancaster CC, Eastern Shore CC, Germanna CC, J. Sargeant Reynolds CC, John Tyler CC, Lord Fairfax CC, Mountain Empire CC, New River CC, Northern Virginia CC Medical Education Center, Patrick Henry CC, Paul D. Camp CC, Piedmont Virginia CC, Rappahannock CC, Southside Virginia CC, Southwest Virginia CC, Thomas Nelson CC, Tidewater CC, Virginia Highlands CC, Virginia Western CC, Wytheville CC

Virginia colleges and universities
Eastern Mennonite University, George Mason University, Hampton University, James Madison University, Liberty University, Longwood University, Lynchburg College, Norfolk State University, Old Dominion University, Radford University, Shenandoah University, University of Virginia, University of Virginia at Wise, Virginia Commonwealth University, Virginia State University

Professional Associations
Virginia Nurses Association
7113 Three Chopt Road, Richmond, VA 23226
(804) 282-1808 • www.virginianurses.com

Virginia Partnership for Nursing
7113 Three Chopt Road, Richmond, VA 23226
(804) 282-1808
www.virginiapartnershipfornursing.org

American Nurses Association
8515 Georgia Ave., Suite 400
Silver Spring, MD 20910-3492
(301) 628-5000
(800) 274-4ANA (4262) • www.ana.org

Registered Nurse Professional Association
950 S. Bascom Ave.
San Jose, CA 95128
(408) 292-6061 • www.rnpa.net

Registered nurses care for patients, providing them with treatment, counseling and education. RNs work closely with a patient’s physicians and other health professionals as part of the health care team. Depending on their area of specialization and work setting, RNs perform some or all of the following:
• develop and implement individualized plans for a patient’s care.
• monitor and record patients’ needs and changing conditions.
• administer prescribed medications and treatments.
• educate individuals on self-care, including maintaining health and preventing illness/injury.
• conduct health screening tests and procedures.
• direct and supervise other nursing personnel.

Registered nurses are sought in a wide variety of work settings: hospitals, physicians’ offices, industrial and corporate sites, clinics, government or community health agencies, nursing homes, hospices or patients’ homes. RNs also may choose to pursue careers in health administration, teaching, utilization review, consulting, research and many other specialities.
Licensed practical nurses (LPNs) provide routine nursing care for patients. They work under the direction of registered nurses or physicians.

Licensed practical nurses:
- take and record patients’ vital signs, such as blood pressure and temperature.
- perform some diagnostic tests and treatments.
- assist patients with daily activities, such as feeding, bathing and exercising, which may involve lifting and turning patients.
- observe patients and report any reactions to treatments or medications.
- care for patients ranging from newborns to adults, from labor and delivery to postmortem.

LPNs may work in hospitals, clinics, physicians’ offices, private homes, nursing homes and other medical institutions.
Nursing Assistant/Home Health Aide/Home Care Aide

Average Salary Range
$22,000-$28,000

Educational Requirements
Students intending to pursue a career as a nursing assistant should prepare by taking high school courses in math, English and science. Nursing assistants must complete an approved program and complete a national certification examination to receive the designation “Certified Nursing Assistant.”

Home health aides or home care aides also may be required to complete a training program or pass a skills competency test. State requirements can vary for the home care aide. Many states require workers to be Certified Nursing Assistants with additional training to work in the home setting. Home health aides or home care aides may be required to have a driver’s license and transportation.

Educational Institutions
Danville CC, Eastern Shore CC, Lord Fairfax CC, Mountain Empire CC, Patrick Henry CC, Rappahannock CC, Southside Virginia CC, Southwest Virginia CC, Tidewater CC

See Educational Institution section on Page 103 for additional programs offered at hospitals, proprietary schools and career and technical schools.

Professional Associations
National Network of Career Nursing Assistants
3577 Easton Road
Norton, OH 44203
(330) 825-9342
www.cna-network.org

National Association for Home Care and Hospice
228 7th St. S.E.
Washington, DC 20003
(202) 547-7424
www.nahc.org

National Association of Health Care Assistants
501 E. 15th St.
Joplin, MO 64804
(800) 784-6049
www.nahcacares.org

Nursing assistants and home health aides help nurses and other members of the health care team provide patient care. Nursing assistants are also known as nurse aides or home health aides.

Nursing assistants usually work in hospitals, nursing homes and long-term facilities under the supervision of licensed health care professionals. They also may work in private homes or psychiatric care settings.

Nursing assistants:
• take and record patients’ temperature, blood pressure, pulse, respiration and weight.
• set up medical equipment and perform simple treatments.
• assist patients in and out of bed.
• move patients to and from treatment rooms.
• assist with or provide bathing, dressing, grooming, toileting and other hygiene needs.
• serve meals and feed patients as required.
• make beds and perform other housekeeping activities to maintain cleanliness in patients’ rooms, nurseries and operating rooms.
• assist patients with walking and exercises.

Home health aides/home care aides provide in-home services for those unable to care for themselves or who require assistance with daily living activities. Specific duties may include:
• taking and recording patients’ temperature, blood pressure, pulse, respiration and weight.
• assisting with administering medications.
• changing simple, nonsterile dressings/bandages.
• assisting with or providing bathing, dressing, grooming, toileting and other hygiene needs.
• helping patients in and out of bed.
• purchasing food and preparing and serving special diets to patients and families.
• preparing and serving light meals and assisting or providing feeding.
• performing housekeeping activities to maintain a healthy home environment.
• assisting with walking and exercises.
CAREER OPPORTUNITIES

Pharmacy

Pharmacist
Pharmacy Technician
Pharmacists care for patients by managing medication therapy as an integrated member of a health care team, which includes physicians, nurses and other health professionals. Pharmacists evaluate and monitor drug therapy to achieve specific outcomes and improve the patient’s quality of life.

Pharmacists:
- take responsibility to assure that medications are used appropriately by patients.
- provide information to prescribers and other health professionals about medications and proper drug treatment.
- improve patients’ understanding of the appropriate use of medications.
- provide medication therapy management services.
- maintain comprehensive computerized records of all medications dispensed.
- increase patients’ adherence to prescription medication regimes.
- reduce the risk of adverse events and interactions associated with medications.
- determine the identity and strength of medications.
- advise patients about the use of nonprescription and herbal medicines.
- refer individuals to physicians, dentists or other health practitioners.
- oversee the activities of pharmacy technicians and pharmacy interns.
- teach in schools of pharmacy.

Pharmacists may perform other duties depending on their place of employment.
- Community pharmacists or retail pharmacists also perform professional, managerial and administrative functions.
- Consultant and long-term care pharmacists regularly review drug therapy programs of nursing home patients.
- Hospital pharmacists advise the medical staff on the selection and effects of drugs, perform administrative duties, teach, conduct research and work in patient care areas as members of a medical team.
- Nuclear pharmacists work with radiopharmaceuticals (drugs that contain radioactive materials).
- Pharmacists in corporate/industrial settings may research and develop new drugs or supervise personnel, quality control, packaging or medical sales.
- U.S. and state governmental pharmacists regulate the profession to preserve and protect public health in various settings such as: State Board of Pharmacy and Department of Health, U.S. Food and Drug Administration and the U.S. Public Health Service.
- Professional association pharmacists offer services to promote health care, professional growth and advocacy.

Depending on their place of employment, pharmacists may work alone, with other pharmacists or as a member of a team of health care professionals.
Pharmacy technicians assist in mixing and filling prescriptions and maintaining stock levels. They work under the direction and close supervision of pharmacists.

Pharmacy technicians:
- fill prescriptions with prepared drugs and compound sterile intravenous solutions (under the supervision of a pharmacist).
- mix pharmaceutical preparations under the direction and supervision of pharmacists.
- package and label drugs, chemicals and other pharmaceutical preparations.
- order and stock supplies and maintain inventory.
- compute drug charges.
- deliver prepared medications.
- clean equipment and work areas.
- sterilize bottles, beakers and other glassware according to prescribed methods.
- greet and assist patients and other health care professionals.
- gather and input data using a computer.

Pharmacy technicians usually work in large hospitals or retail pharmacies in the community, as well as pharmaceutical companies, federal and state institutions, and mail-order pharmacies.

Average Salary Range
$18,000-$31,200

Educational Requirements
Students intending to pursue a career as a pharmacy technician should prepare by taking challenging high school courses in science, math and English.

A required national certification exam is offered by the Pharmacy Technician Certification Board. Recertification must be obtained every two years.

Because pharmacy technicians deal with controlled substances, they may be required to undergo background checks. Applicants without prior experience or training may be required to pass a test to determine if they have the necessary aptitude to learn the job. Some typing may be required.

Educational Institutions
Applied Career Training, Augusta Health Care, Career Connections Education Center, Central Virginia CC, Danville CC, Everest College, Faks Allied Health Education Center, Germanna CC, Greensville Memorial Hospital, Heritage Institute, J. Sargeant Reynolds CC, Medical Learning Center, Medicorp Health Systems, Mountain Empire CC, Patrick Henry CC, Pharm Techs R US LLC, Professional Healthcare Institute, Richmond School of Health and Technology, Sentara Williamsburg Regional Medical Center, Southwest Virginia CC, Stratford University, Virginia College-Richmond, Winchester Medical Center, Wytheville CC

Professional Associations
American Association of Pharmacy Technicians
P.O. Box 1447
Greensboro, NC 27402
(877) 368-4771
www.pharmacytechnician.com

American Pharmacists Association
2215 Constitution Ave. N.W.
Washington, DC 20037
(202) 628-4410
www.pharmacist.com

National Pharmacy Technician Association
P.O. Box 683148
Houston, TX 77268
(888) 247-8700
www.pharmacytechnician.org
Public Health & Nutrition

Biostatistician
Environmental Health Specialist
Epidemiologist
Health Educator
Registered Dietitian
Dietetic Technician
Biostatisticians are experts in analyzing medical, scientific and public health data. Many are members of new drug development teams, comparing data on the side effects, success rate or other aspects of one drug (or drug combination) with that of another. Other biostatisticians are involved in environmental, medical or public health research. Depending on the work setting, biostatisticians may:

- design and implement studies to measure a treatment’s effectiveness.
- review public health information to identify patterns of disease, health-related environmental issues or health care cost trends.
- analyze research data for significance.
- develop conclusions and recommendations based on statistical information.

Biostatisticians are employed in a wide variety of professional partnerships, the pharmaceutical industry, health delivery services, environmental studies and universities, as well as state, federal and local health departments and agencies.
Environmental health specialists educate and consult clients and enforce regulations governing the sanitation of food, milk and water; hazardous and infectious waste; sewage; institutional environments; and health hazards. They help improve water and sanitation facilities at recreational areas, nursing homes, schools, restaurants and other locations, and are actively involved in the overall environmental quality of a community.

Environmental health specialists:
- collect and analyze environmental samples to screen for possible public health hazards.
- prepare and calibrate equipment used to collect and analyze samples.
- oversee the treatment and disposal of sewage and hazardous or infectious waste.
- design and monitor construction of wastewater disposal systems and well installations.
- determine pollution problems and initiate stop-action orders.
- develop and manage programs to prevent toxic waste contamination, control insects and rodents, dispose of waste and ensure clean water supplies.
- consult and advise physicians and other medical personnel about community health hazards.
- help draft laws and regulations and testify in court.
- evaluate the handling, processing and serving of food and milk to identify hazards and ensure compliance.
- educate communities on environmental health issues.
- conduct and analyze epidemiological data regarding disease outbreaks.
- utilize computers to effectively manage data.
- communicate well with the public.

Specialties include milk and dairy production, food protection, sewage disposal, pesticide management, air pollution, institutional sanitation, environmental and occupational health, as well as health safety and sanitation in pools, lodging establishments and migrant labor camps.
Epidemiologists investigate the patterns of disease and other health-related problems. They research diseases’ causes and frequencies, as well as the common characteristics of people most likely to fall victim. They use this information to devise or refine solutions to control or prevent diseases.

Epidemiologists:
- conduct research among large populations to determine disease trends.
- develop and test theories regarding the causes and spread of disease.
- investigate and identify risk factors for disease.
- determine strategies to combat the spread of, occurrence of or mortality from disease.
- compare the effectiveness of various methods for combating diseases.
- conduct public health surveillance to monitor the distribution of diseases.

Among the many subspecialties within epidemiology are:
- cancer epidemiology
- environmental/occupational epidemiology
- neuroepidemiology
- psychiatric or psychoneuroepidemiology
- cardiovascular epidemiology
- genetic epidemiology
- communicable disease epidemiology
- veterinary epidemiology
- social epidemiology
- behavioral epidemiology
- pharmacoepidemiology

Epidemiologists may work at research-oriented universities, in the pharmaceutical industry, for large health care providers or HMOs, or in federal, state or local public health departments. Many also are employed by the World Health Organization and by the Centers for Disease Control and Prevention. Epidemiologists may work in large laboratory settings or on site in a community that is experiencing a disease epidemic. Epidemiologists work with many types of health care and public health professionals to investigate and control diseases.
Average Salary Range
$35,000-$55,000

Educational Requirements
Students interested in becoming health educators should take the most challenging high school courses available in English, science, speech and math. They should seek accredited undergraduate- (bachelor’s degree) and graduate-level programs in health education and public health.

Certified health education specialists also must pass a written exam. Special licensing is required for health educators who become classroom teachers.

Educational Institutions
American University, Eastern Virginia Medical School, Hampton University, James Madison University, Liberty University, Lynchburg College, Mary Baldwin College, Marymount University, Old Dominion University, Radford University, Roanoke College, University of Mary Washington, University of Virginia, Virginia Commonwealth University, Virginia State University, Virginia Tech, Walden University

Professional Associations
American Public Health Association
800 I St. N.W.
Washington, DC 20001
(202) 777-2742 (APHA)
www.apha.org

Virginia Public Health Association
2415 Westwood Ave.
Richmond, VA 23230
(804) 767-7230
www.vapha.org

American Alliance for Health, Physical Education, Recreation and Dance
1900 Association Drive
Reston, VA 20191-1588
(800) 213-7193 • (703) 476-3400
www.aahperd.org

Society for Public Health Education
10 G. St., N.E., Suite 605
Washington, DC 20002
(202) 408-9804
www.sophe.org

Health educators work with individuals, organizations and communities to bring about behavioral and environmental changes that foster good health. They apply theories and principles of behavioral and social sciences to design, organize, implement, communicate and evaluate the effects of education programs and strategies related to health behaviors of individuals, families, organizations and communities.

Health educators:
• assess the health needs of individuals or groups by collecting and analyzing information about health status, social and cultural environments, needs and interests, and available resources.
• provide individual health counseling and referrals.
• research, design and present health education programs to increase knowledge, modify attitudes and adopt healthy behaviors.
• develop educational curricula for a variety of settings and learners.
• facilitate discussion and decision-making within groups.
• serve as a resource for health information and as consultants for those requesting assistance in solving health-related problems.

Health educators may specialize according to a health concern, illness or work setting.
• Community public health educators focus on public health issues.
• School and college health educators teach health education courses and conduct health promotion campaigns.
• Patient and family health educators work primarily with other health care professionals in hospitals, clinics and health maintenance organizations.
• Work-site health educators and wellness directors plan and manage on-the-job health promotion programs.

Health educators may work alone, with groups of clients or with other health and human service professionals in health departments, community organizations, corporations, hospitals, schools and government agencies.
Registered Dietitian

Average Salary Range
$45,000-$65,000

Educational Requirements
Students interested in becoming dietitians should prepare by taking challenging high school classes in science, English, math and business.

To become a registered dietitian, students must earn a bachelor’s degree in an accredited academic program and complete an accredited supervised practice program, such as a coordinated program or dietetic internship. Registered dietitians also must pass a national examination and complete continuing education requirements. Students may begin at a local community college and transfer to a four-year program after obtaining an Associate in Science degree.

“Becoming a Registered Dietitian Fact Sheet” and additional information are available at www.eatright.org/students/education/starthere.aspx.

Educational Institutions
James Madison University, Norfolk State University, Radford University, Virginia Tech, Virginia State University

Professional Associations
Virginia Dietetic Association
P.O. Box 439
Centreville, VA 20122-0439
(703) 815-8293
www.eatrightvirginia.org

American Dietetic Association
120 S. Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
(312) 899-0040 • (800) 877-1600
www.eatright.org

American Society for Nutrition
9650 Rockville Pike
Bethesda, MD 20814
(301) 634-7050
www.nutrition.org

Registered dietitians teach and counsel individuals and groups about nutrition and its impact on health and well-being. They work in a variety of settings: hospitals and clinics, food service management, public health, business, education, research, and private practice. Areas of specialty include education, pediatrics, geriatrics, business and sports nutrition.

Depending on their work setting, registered dietitians:
• plan and supervise meal preparation and service in hospitals, schools, restaurants or other public and private institutions.
• use nutrition, biochemistry and physiology principles to make recommendations regarding patients’ nutritional management.
• provide counsel about diet modifications that can correct or prevent health problems.
• analyze food for its nutritional content and study the way the body uses nutrients.
• select, train and direct nutrition services staff.
• provide community-based programs designed to promote well-being and prevent chronic diseases.
• direct purchasing and prepare reports and budgets.
Dietetic technicians help assess, plan, implement and evaluate nutrition services and programs for hospitals, schools, businesses and others. They usually work as members of health care teams and are supervised by a registered dietitian and/or administrator.

Depending on their work setting, dietetic technicians:
- obtain patients’ diet histories.
- help patients plan meals within their food budgets and prescribed diets.
- counsel individuals or groups at risk for poor nutrition.
- assist with food service operations.
- develop and/or test nutritional products.
- arrange for the purchase and storage of food, supplies and equipment.
- supervise food production and service, including quality control, sanitation and safety.
- use computers to calculate payroll, record laboratory data and verify diet orders.
CAREER OPPORTUNITIES

Radiologic Technology

Nuclear Medicine Technologist
Radiation Therapist
Radiologic Technologist
Sonographer
Nuclear Medicine Technologist

Average Salary Range
$65,000-$75,000

Educational Requirements
Students intending to pursue a career as a nuclear medicine technologist should prepare by taking the most challenging high school courses available in science and math.

Nuclear medicine technology programs are available through both hospitals and colleges/universities. High school graduation (or GED) is required for entry into a two- or four-year program. For one-year programs, graduation from an accredited radiologic technology or health sciences program is usually necessary. Individuals also must earn certification involving written and practical examinations.

Certification can be obtained from the American Registry of Radiologic Technologists and from the Nuclear Medicine Technology Certification Board.

Educational Institutions
Carilion Roanoke Memorial Hospital,
Old Dominion University, Virginia
Commonwealth University

Professional Associations
Society of Nuclear Medicine
1850 Samuel Morse Drive
Reston, VA 20190
(703) 708-9000
www.snm.org

Virginia Society of Radiologic Technologists
P.O. Box 1114
Salem, VA 24153
(540) 355-6778
www.vsrt.org

American Society of Radiologic Technologists
15000 Central Ave. S.E.
Albuquerque, NM 87123-3909
(505) 298-4500 • (800) 444-2778
www.asrt.org

Nuclear medicine technology evaluates the body's physiological processes via the administration of radioactive compounds known as radiopharmaceuticals. After the radioisotope is administered, the technologist will image the biodistribution of the radiotracer with a gamma camera to determine the presence of disease. Sophisticated computer software applications can further investigate and quantify radiopharmaceutical uptake to determine the presence of disease.

Nuclear medicine technologists:
- are key players in the ability to find cancer due to the advent of positron emission tomography.
- play key roles in identifying cardiac disease and in preventing heart attacks through nuclear cardiology stress testing.
- perform renal scans to determine kidney function.
- perform bone scans to identify the presences of bone infections.
- perform HIDA scans that can uncover stones blocking the gallbladder.
- perform gastric emptying to look at the body's ability to digest food.

Work is performed indoors in specialized laboratories or hospital/clinical settings.
Radiation oncology employs ionizing radiation to destroy cancerous tumors while sparing surrounding tissue. The radiation therapist administers the radiation to the patient.

Radiation therapists:
• assist in localizing tumors.
• participate in treatment and planning.
• deliver high doses of ionizing radiation as prescribed by the radiation oncologist.
• serve as the primary liaison between patients and other members of the radiation oncology team.
• must maintain a high degree of accuracy and awareness of safety issues.

Most radiation therapists work in hospitals. Some work in private offices, public health and government facilities, or cancer treatment centers.
Radiologic technologists (radiographers) use X-ray equipment to help diagnose and treat diseases or injuries. They work under the direction of a physician. Radiographers work in hospitals, clinics, imaging centers or physicians’ offices. Some operate mobile X-ray equipment at the patient’s bedside, in the emergency room or in surgery. Others work in medical laboratories or for private industry.

Radiologic technologists:
- review physicians’ orders and patients’ records to determine required procedures.
- evaluate patients’ conditions and explain X-ray procedures.
- position patients and X-ray equipment to make routine radiographs of specific anatomical areas.
- determine the proper voltage, current and X-ray exposure.
- prepare and administer mixtures required for some procedures.
- assist radiologists in performing sophisticated or invasive procedures.
- ensure proper equipment operation using quality control techniques.
- provide radiation protection for patients, others and self.

Radiologic technologists may specialize in using certain types of equipment or procedures that involve specific body parts.
- Computed tomography (CT) technologists use computerized X-ray equipment to take cross-sectional pictures of the body’s internal structures.
- Picture archiving and communications system (PAC) specialists convert from images to computer-generated images.
- Magnetic resonance imaging (MRI) technologists use radio waves, powerful magnets and computers to create images of body parts.
- Special procedures technologists use specialized X-ray equipment to study and assist physicians in widening narrowed blood vessels.
- Mammography technologists specialize in imaging of the breast tissue.

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Average Salary Range
$50,000-$60,000

Educational Requirements
Students intending to pursue a career as a radiologic technologist should prepare by taking the most challenging high school courses available in science, math and English.

Registered radiologic technologists must complete a two-year training program at an approved hospital or school. High school graduation (or GED) is required for entry into a radiologic technology program. In addition to hospital-based certificate programs, degree programs are offered at two- and four-year colleges and universities. Upon graduation from an accredited program, certification can be obtained through the American Registry of Radiologic Technologists. This certification is voluntary, but is preferred by many employers.

Educational Institutions
Bon Secours St. Mary’s Hospital, Carilion Roanoke Memorial Hospital, Central Virginia CC, Eastern Shore CC-Radiologic Technology, ECPI University, Germanna CC-Radiologic Technology, Medicorp Health Systems, Mountain Empire CC-Radiologic Technology, Northern Virginia CC, Piedmont Virginia CC-Radiographer, Riverside Regional Medical Center, Riverside School of Health Careers, Rockingham Memorial Hospital, Southside Regional Medical Center, Southwest Virginia CC, Virginia Commonwealth University, Virginia Highlands CC, Virginia Western CC, Winchester Medical Center, Wytheville CC

Look into hospitals, health care facilities and career and technical schools for additional training opportunities.

Professional Associations
Virginia Society of Radiologic Technologists
P.O. Box 1114
Salem, VA 24153
(540) 355-6778
www.vsrt.org

American Society of Radiologic Technologists
15000 Central Ave. S.E.
Albuquerque, NM 87123-3909
(505) 298-4500 • (800) 444-2778
www.asrt.org
Sonographers (ultrasound technologists) use complex equipment to direct high-frequency sound waves into specific body areas to produce images that show the shape and position of fetuses, internal organs, fluid accumulation or masses. These images are used by physicians to make diagnoses. Many sonographers, especially those who work in large institutions, specialize in examining specific areas of the body. Examples include neurosonology (brain), echocardiography (heart), obstetrics/gynecology (female pelvis) and vascular (arteries and veins). Sonographers work under the supervision of a physician or senior sonographer.

Sonographers:
- check patients’ medical histories and prior test results.
- select and set up appropriate test equipment.
- plan procedures and explain them to patients.
- determine the proper patient position and transducer selection to achieve accurate test results.
- complete the scan while observing the screen to make sure that the image produced is satisfactory for diagnostic purposes.
- operate equipment that produces photographs or printout (ultra-sonograms) images.

Sonographers may work in a laboratory, an examination room, at bedside or in surgery.

Educational Requirements
Students intending to pursue a career as a sonographer should prepare by taking the most challenging high school courses available in science, math and English.

Students must be graduates of a two-year accredited health care program.

The American Registry for Diagnostic Medical Sonography, incorporated in June 1975, is an independent, nonprofit organization that administers examinations and awards credentials in the areas of diagnostic medical sonography, diagnostic cardiac sonography, vascular interpretation and vascular technology. ARDMS offers these credentials: Registered Diagnostic Medical Sonographer (RDMS), Registered Diagnostic Cardiac Sonographer (RDCS), Registered Vascular Technologist (RVT), and Registered Physician in Vascular Interpretation (RPVI). In many cases, these credentials are required for employment.

Educational Institutions
Central Virginia CC, Northern Virginia CC, Piedmont Virginia CC, Southside Regional Medical Center Professional Schools, Tidewater Community College CC

Professional Associations
American Registry for Diagnostic Medical Sonography Inc.
51 Monroe St., Plaza East One
Rockville, MD 20850-2400
(800) 541-9754 • (301) 738-8401
www.ardms.org

Society of Diagnostic Medical Sonography
2745 Dallas Parkway, Suite 350
Plano, TX 75093-8730
(214) 473-8057 • (800) 229-9506
www.sdms.org

Average Salary Range
$38,000-$72,000

Radiologic Technology • Sonographer
CAREER OPPORTUNITIES

Science, Engineering & Diagnostic Instrumentation

Biomedical Engineer
Biomedical Equipment Technician
Electrocardiograph Technician
Electroneurodiagnostic Technologist
Monitor Surveillance Technician
Occupational Health and Safety Specialist
Research Scientist
Biomedical engineers use engineering and life science principles to design and develop medical and clinical equipment. They research human and animal biology to develop theories and facts or to test, prove or modify known theories of life systems.

Biomedical engineers:
- design and develop instruments and devices (such as artificial organs, limbs, pacemakers or ultrasound imaging equipment) to help health care personnel observe, diagnose, repair or treat physical ailments or deformities.
- study the engineering aspects of human systems.
- plan and conduct research on medical, biological, biochemical or other life systems.
- develop mathematical models and computer simulations of human biomedical systems.
- ensure that critical life-support and analysis equipment is designed properly.
- teach, write and consult; also, some manage laboratories.
- oversee biomedical equipment maintenance and investigate accidents of equipment failure.
- advise hospital personnel on purchase and installation of new equipment. Install, adjust, maintain, sell or repair equipment for biomedical equipment manufacturers.
- train and supervise biomedical equipment technicians and others.
- maintain and improve environmental quality to protect against toxins and pollutants.

Biomedical engineers may work alone or with hospital operating teams, administrators, scientists or other specialists. Most work in medical, academic, industrial and government research laboratories and hospitals.
Biomedical equipment technicians inspect, maintain, repair, calibrate and modify instruments and equipment used in medical therapy, diagnosis and research. Technicians may be involved in equipment operation, supervision and control.

Depending on their specialty, biomedical equipment technicians:
• install, inspect, maintain and test electronic, electrical, mechanical, hydraulic and pneumatic equipment and instruments.
• disassemble equipment to locate malfunctions and repair or replace defective parts.
• re-assemble equipment and adjust precision components according to blueprints and written and verbal instructions.
• perform safety checks on electrical and radiation equipment.
• add to or change components to meet specific therapeutic or diagnostic requirements.
• train people to operate equipment safely.
• maintain supply inventories and parts and reorder items as needed.
• repair and maintain equipment used in radiology, nuclear medicine and patient-monitoring operations or airborne biomedical instrumentation.

Biomedical equipment technicians design, construct, develop, install and service biomedical and related equipment. Most biomedical equipment technicians work in hospitals and large clinics with other technicians and hospital or clinic personnel or with biomedical or clinical engineers and scientists. Some work for manufacturers in engineering, sales or service.

Average Salary Range
$30,000-$45,000

Educational Requirements
Students interested in becoming biomedical equipment technicians should prepare by taking challenging high school courses in science, math and electronics.

Employers often hire and train individuals who have a background in electronics; however, some prefer graduates of formal biomedical equipment technology programs.

Educational Institutions
ECPI University

Professional Associations
Association for the Advancement of Medical Instrumentation
4301 N. Fairfax Drive, Suite 301
Arlington, VA 22203
(703) 525-4890
www.aami.org

American Society of Healthcare Engineering
of the American Hospital Association
155 N. Wacker Drive, Suite 400
Chicago, IL 60606
(312) 422-3800
www.ashe.org
Electrocardiograph Technician

Average Salary Range
$16,000-$23,000

Educational Requirements
Students intending to pursue a career as an electrocardiograph technician should take challenging high school courses in science, math and computer technology. The minimum educational requirement for electrocardiograph technicians is high school graduation or its equivalent, along with supervised on-the-job training, usually lasting eight to 16 weeks. Specialized training requires 12 to 24 months.

Educational Institutions
Community Memorial Healthcenter, J. Sargeant Reynolds CC, Medicorp Health System, Sentara College of Health Science, Tidewater CC, Winchester Medical Center

Professional Associations
The American Society of Echocardiography
2100 Gateway Centre Blvd., Suite 310
Morrisville, NC 27560
(919) 861-5574
www.asecho.org

Electrocardiograph (EKG or ECG) technicians operate equipment that measures, monitors and graphically traces the electrical activity of the heart. Physicians use the graph (electrocardiogram/EKG/ECG) to diagnose and monitor patients’ heart problems.

Electrocardiograph technicians:
• obtain information for EKG records.
• connect electrodes to leads from the EKG machine.
• conduct the electrocardiogram.
• instruct patients to perform physical exercise as specified by the physician.
• identify abnormal heart rhythms.
• recognize emergencies and assist the responding physician.

With additional on-the-job training and experience, EKG technicians may move to positions that perform some or all of the following:
• monitor special EKGs that record heart action over 12- to 24-hour periods
• insert a catheter (tube) into a blood vessel leading to the heart to examine its condition with the aid of a television monitor
• use procedures to test the lungs and heart
• record heart murmurs and other abnormal sounds
• use ultrasound equipment
• record heart activity during physical exercise
• monitor special, three-dimensional tracings of the heart’s electrical activity
• schedule appointments, maintain patients’ files and send bills

EKG technicians often work under the direction of cardiologists. They work in hospital laboratories, clinics or doctors’ offices and may work at bedside.
Electroneurodiagnostic technologists (electroencephalograph technologists) operate specialized instruments that measure and record the electrical activity of the central nervous system. They perform procedures to record the brain’s electrical activity on a graph. Neurologists use these graphs to determine if patients are suffering from a central nervous system disease or condition, such as Alzheimer’s disease, stroke, epilepsy, brain trauma or brain tumor. Frequently, electrophysiologic technicians choose to work in specialty areas, such as long-term monitoring for epilepsy, sleep studies or monitoring waveforms during surgery. Electroneurodiagnostic technologists usually work in hospital laboratories, although some work in physicians’ offices.

Electroneurodiagnostic technologists:
- talk to patients to obtain medical histories.
- apply electrodes onto the scalp or other parts of the body according to a specified pattern.
- perform tests such as electroencephalograms, evoked potentials and polysomnograms.
- identify sources of interference during procedures, such as poor electrode contact or patient movement.
- choose instrument settings for optimal viewing of the electrical activity.
- make minor adjustments and repairs to recording instruments.
- prepare written reports of the tracings for physicians.

Average Salary Range
$32,000-$46,000

Educational Requirements
Students interested in a career as an electroneurodiagnostic technologist should begin early by taking high school courses in math, science, computer technology and English.

Registered electroneurodiagnostic technologists must have an associate degree in electroneurodiagnostics or an associate degree and one year of experience in electroneurodiagnostics and have successfully completed written and oral examinations.

Educational Institutions
Winchester Medical Center

Professional Associations
American Society of Electroneurodiagnostic Technologists
402 E. Bannister Road, Suite A
Kansas City, MO 64131-3019
(816) 931-1120
www.aset.org
Monitor Surveillance Technician

Monitor surveillance technicians carefully observe monitors that graphically record the electrical activity of each heartbeat. They interpret these rhythms and report results to physicians and/or nurses.

Monitor surveillance technicians:
- obtain patient information for the telemetry records, such as heart rhythm history.
- observe the monitor screen, which displays up to 24 patients’ heart rhythms.
- interpret heart rhythms and identify abnormalities.
- post representations and interpretations of heart rhythms.
- recognize changes in heart rhythms and relay the information to a nurse or physician.
- operate the patient-monitoring computer.
- clean and maintain the telemetry battery packs and wiring.

Monitor surveillance technicians work in hospitals where large numbers of patients are connected to telemetry monitors.
Occupational health and safety specialists help prevent harm to workers, property, the environment and the general public. They analyze work environments and design programs to control, eliminate and prevent disease or injury.

Occupational health and safety specialists:
• look for chemical, physical, radiological and biological hazards.
• design safe work spaces, inspect machines or test air quality.
• aim to increase worker productivity by reducing absenteeism and equipment downtime.
• conduct safety inspections and impose fines.
• develop methods to predict hazards.
• evaluate current equipment, products, facilities or processes and those planned for future use.
• evaluate the probability and severity of accidents and identify where controls need to be implemented to reduce or eliminate risk.
• help investigate accidents, studying causes and recommending remedial action.

Occupational health and safety technicians:
• might help design safe work spaces, inspect machines or test air quality.
• focus on testing air, water, machines and other elements of the work environment.
• measure hazards, such as noise or radiation.
• prepare and calibrate scientific equipment.
• examine and test machinery and equipment, such as lifting devices, machine guards or scaffolding.
• check that personal protective equipment, such as masks, respirators, hard-hats, or protective eyewear is being used according to regulations.
• check that hazardous materials are stored correctly.
• test and identify work areas for potential accident and health hazards, such as toxic vapors, mold, mildew and explosive gas-air mixtures.
Research scientists improve and prolong life by helping to prevent and cure illnesses, protect our environment, and sustain our food, water and natural resources. They work to learn everything possible about a particular field of interest and training. They work to gain new knowledge and understanding about the unknown world and identify solutions to major problems to improve our health, environment and economic well-being.

Research scientists:
- study disease processes to find the causes of illnesses such as cancer and heart disease.
- research actions of foods, drugs, hormones, nutrients and other substances.
- isolate and identify bacteria, viruses and parasites.
- study how the immune system works to prevent illness.
- discover ways in which humans/animals lived, worked and died in ancient times.
- develop better ways to process, store and use foods, drugs and chemical compounds.
- use and develop tests to detect diseases, genetic disorders or other abnormalities.
- design and build special laboratory instruments, space vehicles and underwater equipment.
- develop methods to transfer characteristics of one type of organism to another.
- analyze and apply mathematical and scientific theories.
- write reports and scientific papers based on research.

Research scientists may specialize in many different areas.
- Biochemists study chemical processes of living organisms and changes that take place during their development.
- Geneticists study the biology of heredity.
- Immunologists study the ways in which humans and other organisms resist illnesses.
- Marine biologists study life in the seas and oceans.
- Microbiologists study bacteria and other organisms.
- Molecular biologists study living organisms’ basic structures and functions.
- Pathologists study the causes and characteristics of diseases.
- Physicists study interactions of matter and energy.

Research scientists may work alone or as members of a team and usually are assisted by laboratory workers who perform routine tasks. Most research scientists work in laboratories; some also teach in colleges and universities.
Average Salary Range
$35,000-$60,000 (therapists)
$25,000-$30,000 (assistants)
$15,000-$20,000 (aides)

Educational Requirements
Students interested in becoming occupational therapists should take the most challenging high school courses available in science, English and psychology.

Occupational therapists enter the field with a master’s or doctoral degree in occupational therapy. The academic course work includes six months of clinical training.

Certified occupational therapy assistants must complete an accredited program, which includes clinical experience. All must pass a national certification examination and meet state requirements to practice occupational therapy. Occupational therapy aides receive most of their training on the job. A high school diploma is required and volunteer experiences are beneficial.

Educational Institutions

Occupational Therapist:
James Madison University, Jefferson College of Health Sciences, Old Dominion University, Radford University, Shenandoah University, Virginia Commonwealth University

Occupational Therapy Assistant:
Jefferson College of Health Sciences, Mountain Empire CC, Southwest Virginia CC, Tidewater CC, Virginia Highlands CC, Wytheville CC

Professional Associations
Virginia Occupational Therapy Association
2227 Oak Bay Lane
Richmond, VA 23233
(804) 754-4120
www.vaota.org

American Occupational Therapy Association Inc.
4720 Montgomery Lane
P.O. Box 31220
Bethesda, MD 20824-1220
(301) 652-2682
www.aota.org

Occupational therapists and their assistants help people of all ages with physical, psychological or developmental disabilities achieve independence to lead productive and satisfying lives. People who need OT may include adolescents and/or adults with work-related injuries; individuals with arthritis, multiple sclerosis or similar diseases; and those with substance abuse, eating or other mental health disorders. People who have had a stroke or heart attack, a spinal cord or brain injury, or other serious accidents would also benefit from OT. In addition, children with birth injury or trauma, or learning or developmental disabilities often receive OT services, as do older adults experiencing Alzheimer’s disease or other aging-related cognitive or sensory decline.

Occupational therapists:
• consult with treatment teams to develop individualized treatment programs.
• work with clients and their families or significant others to evaluate clients’ physical and mental abilities.
• plan and provide intervention to clients.
• evaluate each client’s progress, attitude and behavior.
• design or provide special equipment to aid clients with disabilities.
• teach clients and their families how to adjust to home, work and social environments.
• educate others about occupational therapy.

Occupational therapists may work in community settings, hospitals, schools or early intervention programs, or in their clients’ home. They may chose to be a “generalist,” or specialize in areas such as pediatrics, gerontology, hand management or work/vocational programs. They may work as staff therapists, supervisors, clinical directors, administrators, consultants, researchers or educators.

Occupational therapy assistants help occupational therapists evaluate patients’ daily living skills, instruct patients in self-care skills, order supplies and maintain records.

Occupational therapy aides transport patients, assemble equipment and prepare and maintain patient work areas.
Orthotists and prosthetists help patients who need custom-made artificial limbs or orthopedic braces. Orthotists design, fabricate and fit external orthopedic braces or orthoses to support weakened body parts or correct physical impairments. Prosthetists create custom-designed artificial limbs or prostheses. While they deal with different challenges, designs and patients, orthotist and prosthetist professionals may choose to pursue one or both disciplines.

Orthotists and prosthetists:
- play integral roles with the health care and rehabilitation teams.
- assess patients to note any factors that could influence design of devices and materials.
- measure, cast, align and fit orthoses and prostheses.
- design devices to offer patients increased or full mobility and independence.
- select materials/components and give device specifications to technicians.
- adjust devices for comfort, alignment and appearance.
- counsel patients on how to use devices.
- maintain and repair devices.

Orthotists and prosthetists may be supported by orthotist and prosthetist assistants, technicians and/or fitters, depending on patients’ needs.

**Average Salary Range**
$45,000-$69,000

**Educational Requirements**
Students interested in these professions should take challenging high school course work, including science, math and English classes.

Certified prosthetists, certified orthotists or certified prosthetists/orthotists must have a bachelor’s degree in prosthetics and orthotics and complete a one-year residency per discipline before being eligible for the national certification exam. Or, one may also complete a post-baccalaureate certificate program and one-year residency per discipline before being eligible for the national certification exam.

Employers may require that orthotists, prosthetists, assistants and technicians be certified/registered by the American Board for Certification in Orthotics, Prosthetics and Pedorthics Inc. or be licensed by the state.

**Educational Institutions**
There are currently no programs available in Virginia.

**Professional Associations**
American Academy of Orthotists and Prosthetists
1331 H St., N.W., Suite 501
Washington, DC 20005
(202) 380-3883
www.oandp.org

American Orthotic and Prosthetic Association
330 John Carlyle St., Suite 200
Alexandria, VA 22314
(571) 431-0876
www.aopanet.org

American Board for Certification in Orthotics, Prosthetics and Pedorthics Inc.
330 John Carlyle St., Suite 210
Alexandria, VA 22314
(703) 836-7114
www.abcop.org

National Commission on Orthotic and Prosthetic Education
330 John Carlyle St., Suite 200
Alexandria, VA 22314
(703) 836-7114
www.ncope.org
Physical Therapy Personnel

Average Salary Range
$55,000-$75,000 (physical therapists)
$30,000-$50,000 (physical therapy assistants)
$25,000 (minimum wage part-time aides/tech)

Educational Requirements
Students interested in becoming physical therapists should take challenging high school courses in science, math and English.

To be a licensed physical therapist, a student must have a Bachelor of Science Degree with associated prerequisites or either a master’s or doctoral degree from an accredited school. Licensed physical therapist assistants must graduate from an approved two-year college program for physical therapy assistants and pass an examination. Physical therapist aides require a high school diploma and receive on-the-job training from their employers.

Educational Institutions

**Physical Therapist:**
Hampton University, Lynchburg College, Marymount University, Old Dominion University, Radford University, Shenandoah University, Virginia Commonwealth University

**Physical Therapist Assistant:**
ECPI University, Jefferson College of Health Sciences, Northern Virginia CC, Tidewater CC, Virginia Highlands CC, Wytheville CC

**Physical Therapy Aide:**
Augusta Health Care, Greensville Memorial Hospital, Medicorp Health System, Twin County Regional Hospital, Winchester Medical Center

Look into hospitals, health care facilities and vocational schools for additional training opportunities. For additional information see: www.howtobecomeaphysicaltherapist.org

Professional Associations
Virginia Physical Therapy Association
1111 N. Fairfax St.
Alexandria, VA 22314
(800) 999-2782, ext. 3235
www.vpta.org

American Physical Therapy Association
1111 N. Fairfax St.
Alexandria, VA 22314-1488
(703) 894-2782 • (800) 999-2782
www.apta.org

Physical therapists evaluate, plan and administer physical therapy programs to restore function, relieve pain and prevent disability following disease, injury or loss of a body part. Physical therapist assistants help administer tests and treatment programs under the direction of physical therapists. Physical therapy aides perform routine tasks to assist the physical therapy team.

Physical therapists:
- develop individualized physical therapy programs for patients based on referrals from physicians, a review of medical records, examination and evaluation of the patient.
- administer therapeutic exercises to improve or maintain muscle function.
- instruct and motivate patients.
- administer treatments involving light, heat, water and electricity.
- evaluate the effect and duration of interventions and make any needed adjustments.
- perform soft tissue mobilization and joint mobilization.
- administer traction to relieve neck and back pain.
- instruct patients and families in physical therapy procedures to be used at home.
- train patients to use prosthetic and orthotic devices and recommend modifications.
- interact and practice in collaboration with a variety of professionals, including physicians, social workers, nurses, psychologists and other therapists.
- work with employers to prevent on-the-job injury and to facilitate the return to work of injured employees.
- facilitate functional recovery in patients after suffering a stroke.
- facilitate motor development in children in the school system.
- help heart patients regain full quality of life.

Physical therapists may specialize in sports physical therapy, orthopedics, pediatrics, clinical electrophysiological testing, geriatrics, hand rehabilitation, oncology, women’s health, neurology and cardiopulmonary therapy. Many also consult and/or engage in research, education, administration and community health.

Physical therapists work with physicians, nurses, social workers, speech therapists, occupational therapists and other specialists. Some are in private practice, while others work in hospitals, clinics, rehabilitation centers, physicians’ offices, schools for the handicapped, nursing homes, colleges and universities, research labs, and government agencies.
Respiratory therapists treat patients who have breathing difficulties due to cardiopulmonary (heart-lung) problems. The field of respiratory therapy has been transitioning from its roots in technology to a role that more closely resembles disease management. Treatments include temporary or long-term therapy for lung disorders such as asthma, COPD (emphysema and chronic bronchitis), lung cancer, cystic fibrosis, or pneumonia, and emergency care for those with heart failure, chest injuries, stroke, shock, premature birth or post-surgical complications. Work is usually in hospitals, skilled nursing facilities, patients’ homes, physicians’ offices and outpatient facilities.

Although registered and certified, respiratory therapists share many similar duties. Registered respiratory therapists typically have broader responsibilities and are more involved in patient assessment and critical care management. Additionally, registered respiratory therapists are afforded greater opportunities for advancement and promotion.

Respiratory therapists typically:

- interview patients and perform chest physical exams to determine the best kind of therapy for their condition.
- consult with physicians to recommend a change in therapy based on evaluation of the patient.
- analyze breath, tissue and blood specimens to determine levels of oxygen and other gases.
- set up, adjust and manage life-support equipment in critical care units.
- manage ventilators and artificial airway devices for patients who cannot breathe normally on their own.
- educate patients and their families about lung disease so they can maximize their recovery.
- administer medical gases and drugs to help improve patients’ breathing.
- assist in the delivery and emergency transport of critically ill newborns.
- conduct breathing tests in laboratories to assist in diagnosing respiratory illness.
- assist in the diagnosis and treatment of sleep disorders.
- become members of a pulmonary rehabilitation team helping patients with chronic respiratory diseases to breathe more efficiently.
- utilize hyperbaric oxygen therapy.
## Speech/Language Pathologist/Audiologist

### Average Salary Range
- $40,000-$80,000 (audiologists)
- $58,000-$80,000 (speech/language pathologists)

Salaries depend on educational background, experience, work setting and geographical location.

### Educational Requirements
Students interested in these careers should take high school courses that cover a broad spectrum, including health, social, physical and biological sciences; English/language arts; mathematics; the humanities (a foreign language); and technology (computer science). Students must complete an accredited program in audiology or speech-language pathology. To become a certified audiologist or speech/language pathologist, one must complete either a master’s or doctoral degree, successfully complete the required clinical experience and pass a national exam. Audiologists complete the required clinical experience during their academic program study while speech/language pathologists complete a supervised clinical fellowship after obtaining their master’s degree. There are separate licenses for audiologists and speech/language pathologists in Virginia.

### Educational Institutions
**Audiologist:**
- James Madison University, Old Dominion University, Norfolk State University, University of Virginia

**Speech/Language Pathologist:**
- Hampton University, James Madison University, Longwood University, Old Dominion University, Radford University, University of Virginia

### Professional Associations
- Speech-Language-Hearing Association of Virginia
  - 3126 W. Cary St., #436
  - Richmond, VA 23221-3504
  - (888) 729-7428
  - www.shav.org

- American Speech-Language-Hearing Association
  - 2200 Research Blvd.
  - Rockville, MD 20850-3289
  - (301) 296-5700
  - www.asha.org

### Audiologists
- determine the range, nature and degree of hearing function and conduct physiological measurements.
- assist physicians in diagnosing an organic basis for a hearing disability.
- plan and conduct rehabilitation programs (e.g. counseling, auditory training and speech reading).
- conduct research in auditory systems.
- consult with educational, medical and other professional groups.
- fit patients with hearing aids and make recommendations and orient patients in their use.

### Speech/language pathologists
- identify speech and language disorders and seek to identify their causes.
- plan and conduct therapy for impairments such as aphasia and stuttering.
- counsel patients and families.
- consult with physicians, psychologists, physical therapists, social workers and teachers.
- conduct research related to speech and hearing processes and disorders.
- treat individuals with swallowing and other upper-digestive disorders.
- provide accent reduction and voice improvement instruction.
Recreation therapists/therapeutic recreation specialists assist people with disabilities or disabling conditions that interfere with their ability to participate independently in daily life activities, including recreation and leisure. They help individuals overcome physical, social, emotional, psychological and environmental barriers. Therapeutic recreation specialists may receive more specialized training in adaptive aquatics, adaptive or wheelchair sports, outdoor adventure activities, horticultural therapy or hippotherapy. They also may specialize in specific population groups, such as developmental disabilities, mobility impairments or mental illness.

Recreation therapists’ primary goals are to provide support for the individual to achieve leisure participation and an increased quality of life.

Therapeutic recreation specialists:
- assess clients’ needs and functional abilities.
- plan and implement goal-oriented programs.
- document clients’ progress.
- monitor and perform quality improvement activities.
- facilitate interventions on skill development, improvement of functional skills, leisure awareness, community integration and resource identification.
- participate in interdisciplinary teams in the provision of service and care.

Therapeutic recreation specialists work in physical rehabilitation hospitals, psychiatric hospitals, mental health agencies, community recreation agencies, child and adolescent treatment centers, nursing homes and retirement communities, outpatient and day treatment programs, acute care hospitals, correctional facilities, and long-term care hospitals.
CAREER OPPORTUNITIES

Veterinary Medicine

Veterinarian
Veterinary Technician/Assistant
Veterinarians are educated and trained in the medical and surgical care of animals. They provide diagnostic, therapeutic and preventive medical expertise across a broad array of species and disciplines:

- companion animals, predominantly dogs and cats, but including many other companion species, such as “pocket” mammals, birds, reptiles and fish. As companion animals assume greater emotional value, veterinarians are increasingly considered to be members of the family-care team.
- food-producing animals, such as cattle, swine, sheep, poultry and commercial fish; thereby ensuring a plentiful, safe food supply.
- horses, including those used for performance and pleasure.
- zoo animals and wildlife, both terrestrial and aquatic species; and including environmental/ecosystem health and conservation.
- biomedical research and laboratory animal medicine, in governmental, industrial and academic organizations, in support of health research and development.
- public health and food safety, especially protecting against toxic chemicals and drugs and infectious microorganisms that are transmissible from animals to humans. Veterinarians are an integral part of national defense teams organized to counter agro- and bioterrorism.
- disaster response and relief efforts; in addition to providing care for individual animals after natural and man-made disasters, veterinarians protect public health by assisting local authorities in addressing disease risks.
- military veterinarians provide care for military animals as well as educate farmers in undeveloped countries how to keep their animals healthy and safe.
- veterinarians in government service help write and enforce legislation to protect animal health, human health and the country’s food supply.

Note: Those interested in additional information should visit the Virginia-Maryland Regional College of Veterinary Medicine website, www.vetmed.vt.edu, or one of the veterinary associations shown on the adjoining panel.
Licensed Veterinary Technician
Licensed veterinary technicians provide exceptional care for animals in a variety of areas such as veterinary hospitals, research institutes, zoos, wildlife rehabilitation and livestock health management. After a person earns an associate or bachelor's degree in a veterinary technology program, they will have to take a licensing board exam. Passing this exam and earning the title of licensed veterinary technician ensures pet owners that this person has a thorough knowledge of their job and can perform these duties with care, compassion and expertise.

Veterinary technicians typically:
• perform dental prophylaxis.
• administer medications and anesthesia.
• monitor anesthesia, blood pressure, heart rate and oxygen levels during surgery.
• perform radiology and ultrasounds procedures.
• perform laboratory tests on blood, urine and feces.
• nursing care and treatment of hospitalized animals.
• provide client education and instructions to owners for home care of animals.
• promote the human-animal bond.
• are advocates for all animals in your care.

Veterinary Assistants
Veterinary assistants are either trained in a certification program or receive on-the-job training. Assistants play a major role in helping the veterinarians and veterinary technicians by performing routine animal care such as feeding, watering, bathing and exercising animals. Veterinary assistants also help in the exam and treatment areas by holding animals during their treatments or exams.

Average Salary Range
$18,000-$43,000

Educational Requirements
Those interested in becoming veterinary technicians or veterinary assistants should prepare early by taking challenging course work in math and science in secondary schools and by seeking paid or volunteer opportunities in a veterinary setting.

Veterinary technicians must obtain a two-year degree in veterinary technology, while veterinary technologists must earn a four-year degree. All programs must be accredited by the American Veterinary Medical Association. Licensure can then be obtained by passing a written examination.

Veterinary assistants receive on-the-job training and may have some postsecondary education, such as trade school or junior college.

Educational Institutions
Veterinary Technician
Blue Ridge CC, Germanna CC, Northern Virginia CC, Virginia Western CC

Veterinary Assistant
Blue Ridge CC, Chantilly Academy, Badger Technical Center, Thomas Edison High School

Professional Associations
American Veterinary Medical Association
1931 N. Meacham Road, Suite 100
Schaumburg, IL 60173-4360
(800) 248-2862
www.avma.org

National Association of Veterinary Technicians in America
1665 K St., N.W., Suite 260
Washington, DC 20006
(703) 740-8737 • (888) 996-2882
www.navta.net

Virginia Association of Licensed Veterinary Technicians
351 Wagon Shop Road
Middlebrook, VA 24459
www.valvt.org

Veterinary Emergency and Critical Care Society
6335 Camp Bullis Road, Suite 12
San Antonio, TX 78257
(210) 698-5575
www.veccs.org
Vision

Optometrist/Optometric Physician
Paraoptometric
Optician
Optical Laboratory Technician
Ophthalmic Medical Technologist
A doctor of optometry (an optometrist or optometric physician) is the primary eye care provider and an integral part of the health care team. They have the opportunity to specialize in a variety of areas ranging from pediatric, geriatric, low vision, developmental vision, contact lenses, sport vision and medical eye treatment.

Optometrists:
- detect and diagnose eye diseases such as glaucoma, cataracts, retinal disorders and infections such as conjunctivitis.
- prescribe medication to treat and manage eye disease, including glaucoma.
- perform minor surgical procedures such as removal of foreign objects from the eye.
- evaluate and treat vision conditions such as nearsightedness, farsightedness, astigmatism and presbyopia.
- prescribe and dispense corrective eye glasses, low-vision aids and contact lenses.
- provide pre- and postoperative care, especially for glaucoma, laser and refractive surgery and cataract patients.

Most optometric physicians are self-employed, with a growing number practicing in small, personalized group settings. Some also practice in government health agencies, hospitals and nursing homes.
Paraoptometrics, sometimes called optometric technicians and optometric assistants, assist doctors of optometry in providing eye and vision care services. Paraoptometrics work under the direction and supervision of a doctor of optometry. They are generally employed by optometrists in private practice and sometimes clinics.

Optometric technicians and assistants:
- obtain and record patient case histories.
- maintain records, schedules and announcements.
- prepare patients for eye and vision examinations and assist with various diagnostic tests.
- provide ancillary testing to assist the optometrist’s examination of patients.
- instruct patients in the care and use of eyeglasses and contact lenses.
- assist patients with selection of eyeglass frames and lenses.
- make, adjust or repair eyeglasses.
- maintain an inventory of materials.
- assist with patients in vision therapy.
- assist with patient education in areas of eye health and ophthalmic materials.
- process third-party insurance forms with patient medical and vision insurance plans.

**Average Salary Range**
- $20,000-$50,000 (technicians)
- $18,000-$35,000 (assistants)

**Educational Requirements**
Students interested in working as a paraoptometric (assistant or technician) should prepare by taking science, math and English courses in high school.

A growing number of paraoptometrics are obtaining their associate or undergraduate degree in a health science concentration. A comprehensive and voluntary certification program, which may be completed while on the job, is available through the American Optometric Association.

**Educational Institutions**
There are no programs available in Virginia. However, at present, the commonwealth of Virginia offers scholarships to Virginia residents who agree to return to practice in the state after earning their doctoral degree and obtaining a license to practice. Virginia residents are more likely to attend schools or colleges of optometry in Memphis, Philadelphia and Birmingham.

**Professional Associations**
- **Virginia Optometric Association**
  118 N. 8th St.
  Richmond, VA 23219
  (804) 643-0309
  www.thevoa.org

- **American Optometric Association**
  243 N. Lindbergh Blvd.
  St. Louis, MO 63141
  (314) 991-4100
  (800) 365-2219
  www.aoa.org

  1505 Prince St., Suite 300
  Alexandria, VA 22314
  (800) 365-2219
  www.aoa.org

Vision • Paraoptometric
Optician

Average Salary Range
$21,000-$40,000

Educational Requirements
Students interested in becoming opticians should take challenging high school courses in science, math and English. Following high school graduation (or GED), there are two paths to becoming a licensed optician. Students can either complete a two-year course at an approved school of opticianry or complete an approved and accredited three-year apprenticeship.

Educational Institutions
Central Virginia CC, J. Sargeant Reynolds CC

Professional Associations
Opticians Association of Virginia
14 N. 8th St.
Richmond, VA 23219
(866) 734-9251
www.vaopticians.org

Opticians Association of America
4064 E. Fir Hill Drive
Lakeland, TN 38002
(901) 388-2423
www.oaa.org

National Academy of Opticianry
8401 Corporate Drive, Suite 605
Landover, MD 20785
(800) 229-4828
www.nao.org

Opticianry is the art and science of optics as applied to the compounding, filling and adapting of ophthalmic prescriptions, products and accessories. Opticians design, order, adjust and dispense eyeglasses and contact lenses for patients whose eyesight has been tested by a physician (ophthalmologist) or an optometrist. In Virginia, an optician must be licensed to dispense or sell ophthalmic products.

Opticians:
• analyze and interpret optical prescriptions to determine the required lens specifications.
• measure customers’ facial features (for glasses) or corneas (for contacts).
• help customers select the style and color of eyeglass frames and lenses.
• prepare work orders and give optical labs information needed to fabricate and mount lenses in frames.
• verify finished lenses’ accuracy.
• adjust finished eyeglasses to fit customers.
• fit customers with artificial eyes (prostheses) or shells to cover blemished eyes.
• instruct customers on proper care for eyeglasses and contact lenses.
• fix broken frames, replace temple screws, and adjust and refit glasses.
• sell optical goods such as binoculars, cameras, sunglasses and magnifying glasses.
• assist in selection of low-vision aids.

Opticians may operate their own businesses, manage or work for owners of retail optical outlets, work for ophthalmologists or optometrists who sell glasses directly to patients, or work in eye clinics and hospitals.
The emergence of eyewear as a fashion item, with an assortment of shapes and colors, has been enticing many people to purchase two or three pair of glasses rather than just one. Most new jobs for optical laboratory technicians will be in retail optical chains that manufacture prescription glasses on the premises and provide fast service.

Optical laboratory technicians (optical mechanics) set up and operate machines to cut, grind and polish lenses according to prescriptions. Most optical laboratory technicians work in optical laboratories under the direction of lab supervisors. Others work for dispensing opticians, ophthalmologists or optometrists.

Optical laboratory technicians:
- read lens and frame specifications from prescriptions, select proper lens blanks and mark them, using lens measuring equipment.
- grind and polish lens blanks to specified curvatures and thickness, mount lenses in metal, plastic or rimless frames, and ensure they meet specifications.
- modify lenses as needed.
- examine broken lenses to identify original prescriptions.

In large laboratories, optical laboratory technicians may specialize in one phase or operation. In small labs, they may work in all areas, using lathes, drills, grinders and precision measuring instruments.

Educational Requirements
Students who wish to pursue a career as an optical laboratory technician should take challenging high school courses in science, math and English. Following high school graduation (or GED), students receive six months to one year of training in an optical laboratory or in a vocational program or college.

Educational Institutions
An opticians’ apprentice program is offered at J. Sargeant Reynolds CC.

Professional Associations
National Academy of Opticianry
8401 Corporate Drive, Suite 605
Landover, MD 20785
(800) 229-4828
www.nao.org
Ophthalmic Medical Technologist

Ophthalmic Medical Technologists represent the highest level of ophthalmic medical personnel. They assist ophthalmologists by collecting data and test measurements to ensure the accurate diagnosis and treatment of various disease processes. They are generally employed by ophthalmologists in private practice, clinics or hospitals.

Ophthalmic technologists:
- take patient’s history and test vision.
- test patients for glaucoma.
- assist in determining glasses prescriptions and fit contact lenses.
- perform photography and ultrasonography duties.
- assist in eye surgery.
- supervise ophthalmic personnel.
- perform diagnostic testing.

Among the specialties within the field are ophthalmic photography, ophthalmic ultrasonography, contact lenses, ophthalmic surgical technology, electrophysiology and low-vision optics. Ophthalmic technologists also may specialize in pediatric, general or gerontologic ophthalmology.

Average Salary Range
$38,000-$43,000

Educational Requirements
Students interested in becoming ophthalmic technologists should take high school courses in science, math and English.

After high school graduation (or GED), students should complete two years of college (60 credit hours) with an emphasis in science before applying to a two-year ophthalmic technology program.

Graduates of all accredited ophthalmic technology programs are eligible to sit for national certifying exams given by the Joint Commission on Allied Health Personnel in Ophthalmology.

Educational Institutions
Eastern Virginia Medical School,
Old Dominion University

Professional Associations
American Academy of Ophthalmology
P.O. Box 7424
San Francisco, CA 94120-7424
(415) 561-8500
www.aao.org

Association of Technical Personnel in Ophthalmology
2025 Woodlane Drive
St. Paul, MN 55125-2998
(800) 482-4858
www.atpo.org

Joint Commission on Allied Health Personnel in Ophthalmology
2025 Woodlane Drive
St. Paul, MN 55125-2998
(651) 731-2944 • (800) 284-3937
www.jcahpo.org

Virginia Society of Ophthalmic Medical Personnel
7706 Balta Court
Richmond, VA 23228
(804) 330-9303
www.vsomp.org
CAREER OPPORTUNITIES

Other Health Care Careers

Athletic Trainer
Chiropractor
Emergency Medical Services Personnel
Gerontologist
Athletic trainers specialize in injury and illness prevention, assessment, treatment and rehabilitation for all people. They help ensure that athletic competition is safe, morale is high and performance is at its best. Certified athletic trainers are the leading experts in health care for the physically active. They are a key resource for making physical activity safe in any setting, ranging from professional and amateur sports to on-the-job work activity.

Athletic trainers:
- prevent athletic injury and enhance performance using knowledge of nutrition, hygiene, psychology, conditioning and protective equipment.
- develop training programs to prevent injuries.
- treat and rehabilitate athletic injuries as directed by team physicians.
- educate others about athletic injuries, equipment, nutrition and exercise programs to obtain optimal performance.

Athletic trainers are found in physicians’ offices as physician extenders, rural and urban hospitals, hospital emergency rooms, urgent and ambulatory care centers, military hospitals, physical therapy clinics, high schools, colleges and universities, commercial settings, professional sports teams, and performing arts companies.

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**Average Salary Range**
$25,000-$42,000

**Educational Requirements**
Students who wish to pursue a career as an athletic trainer should take challenging high school courses in science, math and English. All athletic trainers must have a bachelor’s degree from an accredited college or university. Athletic training programs include supervised clinical experience under the direction of a certified athletic trainer, as well as core courses in biology, anatomy, physiology, kinesiology and other related topics.

To become certified, students must pass a three-part examination, including written comprehension, written stimulation and oral-practice settings.

**Educational Institutions**
Averett University, Bluefield College, Bridgewater College, Emory & Henry College, Ferrum College, Hampton University, James Madison University, Liberty University, Longwood University, Lynchburg College, Marymount University, National College of Business and Technology, Old Dominion University, Radford University, Roanoke College, Virginia Intermont College

**Professional Associations**
National Athletic Trainers’ Association
2952 Stemmons Freeway, #200
Dallas, TX 75247
(214) 637-6282
www.nata.org

National Health & Exercise Science Association
3701 Flintridge Court
Brookeville, MD 20833
(301) 576-0611
www.nhesa.org

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Other Health Care Careers • Athletic Trainer
Most chiropractors set up private practices. Others form group practices in private clinics or hospital settings. Some chiropractors occasionally provide treatment at patients’ homes. Many employ nurses, chiropractic assistants or chiropractic technicians to assist them.

Chiropractors, or doctors of chiropractic medicine, are concerned with the diagnosis, treatment and prevention of disorders of the musculoskeletal system and the effects of these disorders on the nervous system and general health. There is an emphasis on manual treatments, including spinal manipulation.

The chiropractic profession emphasizes the natural power of the body to heal itself (homeostasis) and therefore chiropractic practice does not include the use of drugs or surgery. Patients requiring these interventions are referred for medical care.

Chiropractors use natural or noninvasive treatment approaches including manual treatments, physical therapy modalities, exercise programs, nutritional advice, orthotics, lifestyle modification and other patient education. Reprinted by permission of NCMIC Group Inc., West Des Moines, IA ©2000.

Chiropractors:
- use physical, X-ray and laboratory tests to analyze a patient’s condition.
- adjust the spine using hand and finger manipulation.
- advise patients on treatment.
- recommend diets and sleep habits.
- refer patients who require drugs or surgery to other health care specialists.
- take action to prevent skeletal deformation.
- specialize in athletic injuries, diseases and disorders of children, women, the aged, or mental and nervous disorders.
Emergency Medical Services Personnel

Average Salary Range
$22,000-$38,000

Educational Requirements
Students interested in emergency medical service professions should take challenging courses in high school science and health/safety and first aid (including CPR). Students should also take driver’s education and volunteer in a related setting.

To be certified for positions beyond EMT, candidates must be at least 18 years old and have a high school diploma or GED equivalent. The higher level the position sought, the more additional education and training required. Continuing education is necessary for recertification.

Accredited EMS Programs
Associates in Emergency Care, Stonewall Jackson VFD, Center for Emergency Health Services, Central Shenandoah EMS Council, Central Virginia CC, Danby S. Lancaster CC, Danville CC, Franklin County Public Safety, J. Sergeant Reynolds CC, Jefferson College of Health Sciences, John Tyler CC, Lord Fairfax CC, Loudoun County Volunteer Fire and Rescue, Mountain Empire CC, Northern Virginia CC, Patrick Henry CC, Piedmont Virginia CC, Prince William County Paramedic Program, Rappahannock CC, Rappahannock EMS Council Intermediate Program, Roanoke Valley Regional Fire-EMS Training Center, Southside EMS Paramedic Program, Southwest Virginia CC, Thomas Nelson CC, Tidewater CC, University of Virginia/PVCC Paramedic Program, University of Virginia Paramedic Program, Virginia Highlands CC, Wytheville CC

Professional Associations
National Association of Emergency Medical Technicians
P.O. Box 1400
Clinton, MS 39060-1400
(800) 346-2368 • www.naemt.org

Office of Emergency Medical Services
Virginia Department of Health
1041 Technology Park Drive
Glen Allen, VA 23059
(804) 888-9100 • (800) 523-6019 (Virginia only)
www.vdh.state.va.us/oems

National Association of EMS Educators
250 Mount Lebanon Blvd., Suite 209
Pittsburgh, PA 15234
(412) 343-4775 • www.naemse.org

Air Medical Physician Association
951 E. Montana Vista Lane
Salt Lake City, UT 84124
(801) 263-2672 • www.ampa.org

Emergency medical services personnel work in pre-hospital emergency care, providing immediate care to the critically ill and injured. In Virginia, career (paid) and volunteer opportunities are available with rescue squads, fire departments, hospitals, commercial ambulance services, medevac services and private industry. Depending on their training, emergency medical services personnel:

• control bleeding, provide CPR, treat environmental emergencies, care for burns, splint and bandage, free those trapped in vehicles or water, and assist with emergency childbirth.
• observe and report patients’ conditions and communicate with medical personnel at emergency departments via mobile radio and telephone systems.
• immobilize, secure, lift and move patients.
• assess the nature and extent of illness or injury before arriving at the hospital.
• work with law enforcement, fire services and emergency dispatch centers.
• reassure patients, families and bystanders during medical emergencies.
• assess hazardous material incidents, using decontamination techniques as needed.
• drive and operate emergency vehicles.
• clean, maintain and inspect medical and rescue equipment.

There are various levels of emergency medical personnel.

• First responders control bleeding, perform CPR, provide oxygen and stabilize fractures.
• Emergency medical technicians assist those being transported by ambulance. EMTs assess patients’ conditions, immobilize broken bones, deliver babies and treat for shock, serious illnesses or cardiac problems.
• Enhanced technicians start intravenous fluid lines, administer limited medications and employ specialized airway techniques.
• Intermediate technicians administer a variety of medications, use advanced airway techniques, do cardiac monitoring (EKGs) and use defibrillator units.

Paramedics offer the highest level of pre-hospital care in Virginia. They receive expanded medical, trauma and pediatric emergency training, including extensive in-hospital clinical rotations. Paramedics can administer a variety of drugs and perform specialized cardiac monitoring and trauma care. In Virginia, medevac helicopter units employ specialized flight nurses or paramedics.
Gerontologists specialize in working with the elderly. Some have degrees in gerontology and others enter the field after receiving training in nursing, sociology, psychology or a related human services profession, usually having completed additional formal training such as a certificate in aging studies.

Gerontologists:
- provide services to those in nursing homes or similar facilities.
- plan and conduct programs at senior citizen centers or within a community.
- research the aging process and related issues concerning the elderly.
- educate and counsel the elderly and their families.
- teach at colleges and universities.
- inform others through presentations, publications or other forms of outreach.
- advise business, industry and labor about older workers and consumers.

Gerontologists may work in nursing homes, senior citizen centers, hospitals, clinics or public health offices, along with occupational therapists, physical therapists, dietitians or others interested in improving the quality of life for the elderly.

Average Salary Range
$23,000-$52,000

Educational Requirements
Those interested in a career in gerontology should take well-rounded, challenging high school course work, including science, math and English.

Depending on career aspirations, students can earn a certificate, an associate degree, bachelor’s degree, master’s degree or doctorate in gerontology. Postdoctoral research programs also are offered. Educational programs also are available through distance learning programs. In nearly all cases, the more education received in the field, the greater the responsibilities, autonomy and pay.

Educational Institutions
Blue Ridge CC, Danville CC, James Madison University, John Tyler CC, Southwest Virginia CC, Thomas Nelson CC, Tidewater CC, Virginia Commonwealth University, Virginia Tech

Professional Associations
Gerontological Society of America
1220 L St. N.W., Suite 901
Washington, DC 20005
(202) 842-1275
www.geron.org

Association for Gerontology in Higher Education
1220 L St. N.W., Suite 901
Washington, DC 20005-4018
(202) 289-9806
www.aghe.org
There’s no reason to wait until college to start working toward a career in health care — in fact, there are lots of reasons not to wait. First of all, unless you start early and take the right classes in middle school and high school, you’ll have to play catch-up in college.

Here’s the general game plan:

• Keep yourself challenged with as many math, science and English courses as you can take, including advanced placement courses.
• Apply yourself to your studies and work hard to get the best grades you can every term.
• Seek out tutoring, summer school or other extra assistance if you’re having trouble in a school subject.
• Spend time finding the college that’s right for you; get information at the library, from your school counselor or at college days at your school. Check out the military academies and ROTC. Plan a visit to the colleges and universities you are considering.

Want specifics? We’ve got ‘em. Turn to pages 98-99 and you’ll find a terrific timetable that spells out exactly what you should be doing in your freshman, sophomore, junior and senior years of high school, so that when you graduate, you’ll be totally prepared for college and well on your way to a health care career.

“When I was a kid, my dentist would bring in my X-ray and ask, ‘What do you see?’ So in junior high I started thinking about becoming a dentist. I took all the science classes and math I could, mainly because I liked them. Now, I’m in dental school, and I’m really helping people. Like this person came in with a chip off her tooth, and was crying because she didn’t think anything could be done. It’s a great feeling to see her leave so excited about how it looks and what I did.”

– Dawn Spruill
Dental Student
If you’re in school, you’re in luck. There are excellent programs and services available to Virginia students interested in health care careers: the Virginia Association of Health Occupation Students of America, the Governor’s Schools, Tech Prep and the Virginia Generalist Initiative.

HOSA
The Virginia Association of Health Occupation Students of America (HOSA) can help you prepare for a health career. HOSA provides students who are pursuing careers in education or health occupations with opportunities to expand their knowledge and develop skills and leadership. These outreach efforts assist HOSA in its mission to enhance the delivery of compassionate, quality health care.

Virginia Association of Health Occupation Students of America
209 Saint Ives Road
Charlottesville, VA 22911
(434) 975-1085

Governor’s Schools
If you’ve been designated as a gifted student, don’t overlook the opportunities available to you through Virginia’s Governor’s Schools.

Summer residential schools provide high school juniors and seniors with intensive educational experiences in a variety of areas, including science and technology. Students live on a college campus for four to six weeks and participate in classroom, lab and field work. Some participate in mentorships, which allow them to work side-by-side with a variety of professionals.

Summer regional schools are usually housed at a public school or on the campus of a college or university. The programs may last all day or a few hours a day and may continue for two to four weeks. Students return home at the end of each class day.

Academic year programs take the place of all or part of a student’s high school experience, offering advanced opportunities in science, mathematics, humanities, technology and the visual and performing arts.

For more information, contact the Department of Education, Programs for the Gifted, at (804) 225-2884.
Learn It

Find Your Interests and Aptitudes

“What Color is Your Parachute?” 2007 edition. Richard N. Bolles. Continues to provide tools for career choice and self-assessment of skills and preferences regarding people, setting, subjects and rewards in the job setting. Also includes pointers on job hunting and interviewing.

“Choices for the High School Graduate.” Fourth Edition, Bryna J. Fireside. Designed for the high school student trying to make important decisions about the future. In addition to college, the author covers many options for graduating high school seniors. An excellent resource for students and parents, this guide effectively illuminates and evaluates the numerous opportunities available to young people today.

“Do What You Are: Discover the Perfect Career for You Through the Secrets of Personality Type” Revised and Updated Edition Featuring E-careers for the 21st Century. Paul D. Tieger, Barbara Barron-Tieger Third Edition, Little Brown & Company, 2007. Has helped thousands of people find the job that suits their personality type best. Using workbook exercises, the book provides specific job search strategies, including information on how to harness the power of the Internet to conduct the most efficient and effective job search. It lists a wide array of occupations that are popular with your personality type, including today’s hottest career tracks in growth areas such as e-commerce, biotechnology, health care, education, new media and telecommunications. Throughout, the authors provide savvy career advice and highlight the strengths and pitfalls of each personality type with real-life examples.

Tech Prep

If you’re still in middle school or the early years of high school, check out the Tech Prep programs. Students enter Tech Prep in the 11th grade and remain with the program as they complete high school and a two-year college degree or apprenticeship program. Students choose which area they want to concentrate in — including a program in “Health, Human Services and Public Services.” Other areas range from agriculture to engineering. Tech Prep is available at nearly every school division and community college in Virginia. For additional information, call (804) 225-2600 or visit www.schev.edu/students/HSclassroomPrep.asp.
Get It Going • Learn It

Read All About It

There are other resources available to help you choose the right career. Your school guidance counselor, the local public library and college placement offices all have materials and staff to help you explore your career options. They can provide you with videos, interest and aptitude tests and career planning manuals to help you make an informed decision regarding your future. Here are some career-related books you should check out:

“Enhanced Occupational Outlook Handbook: U.S. Department of Labor, JIST 2000.” It provides up-to-date descriptions for nearly 270 major jobs covering 85 percent of the workforce. This book combines the best features of the OOH and the Dictionary of Occupational Title (DOT). It includes 3,000 additional brief descriptions and 4,700 job titles from the DOT.


“Exploring Health Care Careers (2 Volumes): Third Ed.” Ferguson Publishing Co. provides a valuable information source on the potential of careers in this field. The fast growing and fast changing medical field will be one of the most exciting career fields in the 21st century.

“Careers in Health Care.” Barbara Swanson, 2005. This hands-on guide offers specific information about many challenging specialties within a professional field. Swanson tells what’s required to enter and advance in the field and details job outlook and salary information.

“Occupational Outlook Handbook, 2010-11 Edition. U.S. Department of Labor.” This edition is also available at http://www.bls.gov/oco in both English and Spanish. Presents more than 200 different occupations that encompass nearly 90 percent of jobs in the U.S. economy. Each job description contains vital information so you can make an informed choice, including nature of the work; working conditions; employment training, other qualifications and advancement; job outlook; earnings; and related occupations.

“Major Resources Kits.” www.udel.edu/CSC/mrk.html. Authored by the University of Delaware, the Major Resources Kits link academic majors to career alternatives by providing information on career paths, sample job titles and a short bibliography of materials.

“What Color is Your Parachute? A Practical Manual for Job Hunters and Career Changers.” The formula for finding the right job consists of two questions: What do you want to do? Where do you want to do it? This is a good companion for those just starting out in the “real world” as well as for those who are thinking seriously about a career change.

“Exploring Health Careers, Third Edition, 2005.” Maureen McCutcheon and Mary Phillips. 3E provides a comprehensive overview of the many career opportunities available within the health care field. Written from the perspective of health care professionals, readers are introduced to career descriptions, including educational requirements, salary information, skills and procedures performed within the various careers and much more.

BrainTrack’s College and Career Guide at http://www.braintrack.com/colleges-by-career offers in-depth U.S. career profiles and college listings as well as degree and wage statistics for more than 400 occupations that commonly require college or university education for entry or advancement.

Virginia Commonwealth University’s website for frequently asked questions by prospective pre-health students located at www.vcu.edu/aap/prehealth/ProspectiveStudentFAQ.htm is targeted to high school and transfer students enrolling in pre-health programs.

Find Your Interests and Aptitudes


“Teen’s Guide To College And Career Planning: Your High School Roadmap for College & Career Success.” Peterson’s. 2008. Intended for use by students at any stage of middle and high school, but it has the most relevance for high school sophomores and juniors who are starting to get serious about the decisions they will need to make after graduation. Whether they’re planning to head to a two- or four-year college, to a technical school, to an apprenticeship, to the military or directly into the workforce — or are still undecided — here’s where they’ll find information on the various options available and which ones best suit their skills, needs and wants.

“Choose A Career And Discover Your Perfect Job: 105 Tips On Work Attitude And Motivation.” Gary Vurnum and Patrick Merlevede. 2010. We all have our own strengths and weaknesses. This is reflected in your attitude and what motivates you — as we all pay more attention to the things we like and we try to ‘ignore’ the things we don’t! With this in mind, jobEQ has identified 48 ‘patterns’ linked to these strengths and weaknesses or likes and dislikes, each of which you should not only be aware of, but make an effort to address where applicable. In this book you will find two simple and immediately actionable tips for each of these patterns plus a few bonus tips thrown in for good measure! Although you can read them as you would a normal book, it is also useful to take one tip each day and work with it to see how you can implement it into your life. Don’t let the simplicity of these tips fool you. Just apply them in your life and you’ll see how powerful they really are!
Interested in volunteering? Here are some suggestions on where to start:

**Hospitals**
Contact the director of volunteer services at the hospital nearest you.

**Free Clinics**
Contact the Virginia Association of Free Clinics to find the free clinic closest to you:
- Virginia Association of Free Clinics
  - 711 Moorefield Park, Suite C
  - Richmond, VA 23236
  - (804) 340-3434
  - www.vafreeclinics.org

**Local Health Care Delivery Projects**
Contact the Virginia Health Care Foundation to determine the projects closest to you:
- Virginia Health Care Foundation
  - 707 E. Main St., Suite 1350
  - Richmond, VA 23219
  - (804) 828-5804
  - www.vhcf.org

**Community Health Centers**
Contact the Virginia Community Healthcare Association to find the center nearest you:
- Virginia Community Healthcare Association
  - 3831 Westerre Parkway
  - Henrico, VA 23233
  - (804) 237-7677
  - www.vacommunityhealth.org

**Public Health Department**
Look in the phone book for the number of your local health department. Call and ask for the director.

**Other Local Opportunities**
Contact your local Red Cross, 4-H club or nursing home. Your high school guidance counselor or science teachers also are excellent sources of information.
Virginia Area Health Education Centers

1. Virginia AHEC Program Office
P.O. Box 980535
Richmond, VA 23298-0535
VaAHEC@gmail.com
www.choosevirginia.net

2. Eastern Virginia AHEC
Robert Alpino, Program Administrator
Eastern Virginia Medical School
P.O. Box 1980
Norfolk, VA 23501-1980
alpinorj@evms.edu
(757) 446-6167

3. Blue Ridge AHEC
Susannah Lepley, Executive Director
College of Integrated Science and Technology, MSC 9009
Blue Ridge Hall, 358
James Madison University
Harrisonburg, VA 22807
nyecb@jmu.edu
(540) 568-3383
www.brahec.jmu.edu

4. Southside AHEC
Wayne Terry, Executive Director
Longwood University
201 High Street
Farmville, VA 23909
terrywg@longwood.edu
(434) 395-2861

5. Southwest Virginia
GMEC-AHEC
Susan Alford, AHEC Executive Director
Headquarters: The University of Virginia's College at Wise
One College Ave., Wise, VA 24293
Mailing address: 905 Ben Bolt Ave.
Tazewell, VA 24651
swahec@svchs.com
(276) 988-7296

6. Capital AHEC
Karen Purcell, Executive Director
P.O. Box 29130
Richmond, VA 23242-0130
kpurcell@vcu.org
(804) 314-6222

7. South Central AHEC
Regina Kennedy, Executive Director
119 Main St.
Hurt, VA 24563
kennedyrb@yahoo.com
(434) 324-4457
www.scahec.org

8. Rappahannock AHEC
John D. Mitchell, Executive Director
11540 Mary Ball Road
Lancaster, VA 22503
johnm@rahec.org
(804) 313-5296
www.rahec.org

9. Northern Virginia AHEC
Dallice Joyner, Executive Director
2 Herbert St.
Alexandria, VA 22305
djoyner@nvahec.org
(703) 549-7060
www.nvahec.org

Call ‘em
The Virginia Area Health Education Centers program is the best source of information about summer camps, mentoring programs and other opportunities to learn about health careers. Virginia’s AHEC program has developed partnerships with colleges, universities, public schools, hospitals and many other organizations throughout the state to encourage and assist students interested in health careers.

The activities developed and supported by the community AHECs shown on the map below are tailored to meet local needs, which means you don’t have to look far for help. So find the AHEC closest to you and give them a call. They’re ready to serve you!
High School Timetable for College-Bound Students

Freshman Year
- Enroll in the classes that are designed to prepare you for college.
- Set up at least two appointments with your high school counselor, preferably in the early fall and spring, to schedule your classes.
- Talk about careers, professions or studies that interest you.

Sophomore Year
- Enroll in the classes that are designed to prepare you for college.
- Set up at least two appointments in October and January with your high school counselor to discuss career plans.
- Read about college opportunities and talk to college representatives when they visit your region.
- Ask counselors to post College Day/College Night schedules.
- Register for and take the PSAT and the National Merit Scholarship Qualifying Test, usually given in October.

Junior Year
- Study the admission requirements for the colleges and universities that interest you.
- Confirm that you are taking appropriate courses to meet college entrance requirements.
- Meet with your counselor.
- Attend College Day/College Night programs.
- Attend meetings held in your region concerning financial aid or college admission.
- Set up a calendar for taking tests and completing college applications.
- Discuss your family's financial resources and review plans for seeking financial aid.
- Think about people who might write you a recommendation; start with teachers, counselors and employers.
- Register for and take the SAT, Achievement Test or the ACT in the spring.
- See your high school counselor about available summer enrichment programs.

Senior Year: July/August
- Write the colleges you are considering to request application forms, catalogs and financial aid information.
- Visit selected college campuses; talk to graduates and students at the institutions.

September
- Maintain or improve academic grades. College officials look unfavorably upon failing grades and reduced or less rigorous academic loads during the senior year.
- Check with your counselor and use the career center to determine which tests are required and the deadlines for applying.
- Set up a calendar for taking tests and completing college applications.
- Make sure to fulfill application requirements.
- Check early decision admission deadlines.
- See your counselor when you have questions and need help.
- Talk with college representatives when they visit your school.
October/November

- Attend College Day/Night programs.
- See your counselor when you have questions and need help.
- Talk with college representatives when they visit your school.
- Apply to colleges with different admission requirements (least selective to more selective).
- Ask your counselor to look over your application forms and discuss the next steps in applying to college.
- See your counselor about completing the Free Application for Federal Student Aid. Colleges require that students seeking financial aid provide the FAFSA, including the part that explains any unusual financial circumstances.
- Check your school’s newspaper for testing deadlines and scholarship information.
- Mail completed forms to colleges.
- Check military academy and ROTC application and scholarship deadlines if appropriate.

December

- Send all applications and copies of high school grades to the colleges before Christmas, unless a college indicates otherwise.
- Give your guidance counselor all required forms at least two weeks before they are due, since November and December are very busy months for most high school guidance counselors.
- Take the achievement tests (SAT II or ACT) required by most colleges.

January

- Mail the Free Application for Federal Student Aid.
- Some colleges accept outstanding candidates as early as January via early decision programs.
- Take the College Board achievement tests if required by the colleges (if you have not taken them previously).

February

- Ask your counselor to send your first semester’s grades to the colleges, along with any other information not already forwarded. Some colleges provide forms for this purpose.

March

- Re-check college catalogs and see your counselor to make sure that you have taken all of the necessary tests. If you haven’t, make sure you register to take the tests in May.

April/May/June

- Keep a record of acceptances, rejections and financial aid awards.
- Reply promptly to colleges to notify them of your decision.
- Reply promptly when you are notified that you have been awarded a financial aid package.
- Meet the reply deadline or you may lose the admission acceptance or financial aid you have earned.
- Before you leave high school in June, see your counselor to request that a final transcript be sent to the college or university of your choice.

“You’ve got to learn how to hang in there and stay motivated. Having friends who are very uplifting helps a great deal also. You want to get the best education you can.”

– Kia Williams
College Student

Things to Save

- Copies of guidance office newsletters
- Cancelled checks or money order receipts
- Admission tickets to tests and correction forms
- All test score reports
- Transcripts of high school grades
- Work copy of the FAFSA and all other financial aid forms
- College Scholarship Services acknowledgement form
- Copies of all correspondence sent to or received from schools, including applications and acceptances
Allied Health – Miller Analogies Test (MAT)

Pearson
19500 Bulverde Road
San Antonio, TX 78259
(800) 627-7271
www.milleranalogies.com

Sixty-minute test designed to reflect analytical thinking. The MAT is offered in testing centers throughout the country and in both computer-based and paper-based formats.

Dentistry – Dental Admission Test (DAT)

ADA Department of Testing Services
211 E. Chicago Ave., Suite 600
Chicago, IL 60611
(800) 232-1694
www.ada.org

Designed to measure general academic ability and comprehension of specific information. The four exams cover: 1) survey of natural sciences — biology, general and organic chemistry; 2) perceptual ability; 3) reading comprehension (dental and basic sciences); and 4) quantitative ability.

The computer-based test is offered on many days all year.

Administration – Graduate Management Admission Test (GMAT)

Graduate Management Admission Council
11921 Freedom Drive, Suite 300
Reston, VA 20190
(866) 505-6559
www.gmac.com

The GMAT is now a computer-based test. No paper tests are offered. Tests are offered many days every month at hundreds of sites. Call in advance, as popular times fill up quickly. The test is designed to measure certain mental abilities important to the study of management at the graduate level and is usually required for admission to programs in hospital administration and other health management and training programs.

Graduate School – Graduate Record Examinations (GRE)

GRE-Educational Testing Service
P.O. Box 6000
Princeton, NJ 08541-6000
(609) 771-7670 • (866) 473-4373
www.gre.org

Measures general scholastic ability at the graduate level. There are four separate scores for verbal, critical thinking, analytical writing and quantitative ability. The GRE is offered as a computer-based or paper-based test.
Assesses mastery of basic biology, chemistry and physics concepts; scientific problem-solving; critical thinking; and writing skills. They prefer to be contacted by email at: mcat_reg@act.org

Optometry – Optometry Admission Testing
Optometry Admission Testing Program
211 E. Chicago Ave., Suite 600
Chicago, IL 60611-2678
(800) 232-2159
www.opted.org

Designed to measure general academic ability and comprehension of scientific information. The four exams are: 1) survey of natural sciences — biology, general and organic chemistry; 2) reading comprehension; 3) quantitative abilities; and 4) physics.

Pharmacy – Pharmacy College Admission Test
Pearson
19500 Bulverde Road
San Antonio, TX 78259
(800) 627-7271
www.pearsonassessments.com

Designed to measure general academic ability including verbal ability, quantitative ability, biology, chemistry and reading comprehension.
CAREER OPPORTUNITIES

Educational Institutions & Requirements

- Military
- Virginia Colleges and Universities
- Virginia Community Colleges
- Virginia Hospitals and Health Care Facilities
- Virginia Proprietary Schools
- Virginia Career and Technical Schools
- Other Institutions
- Educational Requirements
Many health professionals receive their training and education through the U.S. military. Because all job specialties within the military have parallels in civilian life, the training provided in the military can serve as the foundation of a lifelong career.

The military consists of five armed forces: the Air Force, the Army, the Coast Guard, the Marine Corps and the Navy. Everyone enters the military as either an enlistee or an officer. A high school education usually is required for an enlistee, while a college degree is necessary for an officer. General requirements are that a person be between the ages of 17 and 35, have good health, be a U.S. citizen or legal alien and have good moral character. A person also must achieve at least the minimum entry score on the Armed Service Vocational Aptitude Battery. Other requirements vary depending on the branch of the military selected.

Direct Appointments

Because of the increased need for military personnel in medicine and allied health careers, qualified professionals may receive direct appointments as commissioned officers without attending a military academy, Officer Candidate School or college Reserve Officers’ Training Corps program.

Health Professions Scholarship Program

The E. Edward Hebert Armed Forces Health Professions Scholarship Program provides scholarships and/or financial aid for dental, optometry, medical and osteopathic students, as well as graduate students in nurse anesthesia programs. Each branch of the service has its own specific application criteria.

To be a candidate for this scholarship program, individuals must either be accepted into the next entering class or be currently enrolled in an accredited institution in the United States or Puerto Rico. Candidates also must be U.S. citizens and must meet the prescribed eligibility criteria for appointment as a commissioned officer.

The scholarship’s benefits include full payment of tuition and fees, reimbursement for books, small equipment and supplies, 45 days of active duty with pay for each year of training, and monthly stipends while not on active duty.
For more information about health professions scholarships and loans contact:

**U.S. Air Force**
Director of Cadet Admissions
Headquarters UASFA/RRS
U.S. Air Force Academy
2304 Cadet Drive, Suite 200
USAFA, Academy, CO 80840
(800) 443-9266
www.usafa.af.mil

**U.S. Army**
Director of Admissions
U.S. Military Academy
Building 606
West Point, NY 10996-1797
(845) 938-4041
www.usma.edu

**U.S. Coast Guard**
Director of Admissions
U.S. Coast Guard Academy
31 Mohegan Ave.
New London, CT 06320-8103
(860) 444-8444 • (800) 883-USCG (8724)
www.cga.edu

**U.S. Merchant Marines**
Admissions Office
U.S. Merchant Marine Academy
300 Steamboat Road
Kings Point, NY 11024
(516) 773-5391 • (866) 546-4478
www.usmma.edu

**U.S. Naval Academy**
Attn: Candidate Guidance Office
117 Decatur Road
Annapolis, MD 21402-5018
(410) 293-4361
www.usna.edu

**U.S. Marine Corps**
Headquarters
U.S. Marine Corps
Personnel Management Support Branch (MMSB-17)
2008 Elliott Road
Quantico, VA 22134-5030
(703) 784-3941
www.marines.com

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**Financial Aid**
Each service branch has financial aid programs for students to train in certain health professions before entering active duty. In return for this assistance, graduates must serve as active duty officers for a specified number of years, ranging from three to seven.

**Education Benefits**
The opportunity for higher education is a very attractive military service benefit. Training and duty programs allow service personnel to increase their abilities and achieve advancement. Time and monetary allowances are given. Each branch has special educational programs in addition to the ones listed below that are available to active-duty personnel.

Tuition assistance programs support any college-level, off-duty study at an accredited school. Up to 70 percent of tuition and fees will be paid each semester. Service members’ Opportunity College allows personnel to take courses at a number of different colleges or technical schools while earning degree credits at a single school. Credit also can be earned for certain military training courses. This opportunity accommodates personnel who move frequently.

Defense Activity for Non-traditional Education Support is a support service that administers examinations, including the College Level Examination Program, the SAT and the GED test. The service also supports independent study programs offered at military bases.

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For information about ROTC programs contact www.rotc.com.

**U.S. Air Force Recruiting Office**
AFROTC Admissions
551 E. Maxwell Blvd.
Maxwell AFB, AL 36112-5917
(866) 423-7682
www.afrotc.com

**U.S. Navy Recruiting**
411 E. Franklin St., Suite 101
Richmond, VA 23219
(804) 771-2001
www.nrotc.navy.mil

**U.S. Marine Corps**
ROTC – Navy/Marines
305 Kilbourne Hall
Virginia Military Institute
Lexington, VA 24450
(540) 464-7275

**U.S. Army**
U.S. Army ROTC
1602 Willow Lawn Drive, Suite 301D
Richmond, VA 23230
(804) 285-6690
(800) USA-ROTC (872-7682)
www.goarmy.com
“The most enjoyable part of medical school has been the hands-on practice of taking care of patients because this is what I’m going to be doing for the rest of my life.”

— Jonathan Marston
former Medical Student
Virginia Community Colleges

A community college is a two-year educational institution that offers training for a specific career or preparation for entering a four-year college or university. The requirements for entering a community college include earning a high school diploma or General Equivalency Diploma, or reaching age 18 and demonstrating that the program would be beneficial to you. Application forms must be completed. Some community colleges have additional requirements for entrance into certain programs.

A = Associate Degree
C = Certificate
D = Diploma
P = Program Offered

The community colleges in Virginia that offer health careers training and the programs available are listed here. For more information, contact the schools directly.

* Programs vary by campus

Virginia Community Colleges

1. Blue Ridge Community College
   One College Lane
   P.O. Box 80
   Weyers Cave, VA 24486
   www.bricc.edu
   (434) 234-9821
   (888) 750-2722
   Gerontology (C)
   Medical Transcription/Coder (CS)
   Nursing (A)
   Pharmacy Tech (P)
   Registered Nurse (A)
   Veterinary Assisting (CS)
   Veterinary Technician (A)

2. Central Virginia Community College
   3506 Wards Road
   Lynchburg, VA 24502
   www.cvcc.vccs.edu
   (434) 852-7600
   TDD (434) 852-7701
   Dental Hygiene (A)
   Emergency Medical Service-Paramedic (A)
   EMT-Basic (CS)
   EMT-Intermediate (CS)
   Medical Laboratory Technicians (A)
   Medical Transcription/ Coding (C)
   Nursing Preparation (CS)
   Optician Therapy (CS)
   Pharmacy Technology (C)
   Radiologic Technology (A)
   Respiratory Therapy Technology (A)

3. Danbury S. Lancaster Community College
   1000 Danbury Drive, Box 1000
   Clifton Forge, VA 24422
   www.dsic.edu
   (540) 863-2801
   (877) 73-DSLCC
   EMT-Basic (CS)
   EMT-Intermediate (CS)
   Licensed Practical Nurse (C)
   Massage Therapy (C)
   Nursing (A)
   Registered Nurse (A)

4. Danville Community College
   1000 S. Main St.
   Danville, VA 24541
   www.dcc.vccs.edu
   (434) 797-2222
   TTY (434) 797-8542
   Toll Free (800) 560-4291
   Dental Hygiene (A)
   EMS (CS)
   EMT (CS)
   Gerontology (C)
   Licensed Practical Nurse (C)
   Medical Coding (CS)
   Medical Office Specialist (A)
   Medical Terminology (C)
   Medical Transcription (CS)
   Nurse Aide (CS)
   Pharmacy Technician (CS)
   Registered Nurse (A)

5. Eastern Shore Community College
   2900 Landford Highway
   Melfa, VA 23410
   www.escc.vccs.edu
   (757) 789-1709
   TDD (757) 789-5916
   (757) 789-6955
   Long Term Care Assistant (C)
   Medical Administrative Office Specialist (C)
   Medical Assistant (C)
   Medical Coding and Billing Specialist (C)
   Nursing (A)
   Practical Nursing (C)
   Radiologic Technology (A)

6. Germanna Community College*
   www.gcc.vccs.edu
   a. Locust Grove
      2100 Germanna Highway
      P.O. Box 339
      Locust Grove, VA 22508-2102
      (540) 423-9030
      TDD (540) 423-8988
   b. Daniel Technology Center
      18121 Technology Drive
      Culpeper, VA 22701
      (540) 387-2514
   c. Stafford County Center
      2761 Jeff Davis Highway
      Suite 107
      Stafford, VA 22554
      (540) 296-8830
   d. Fredericksburg
      10000 Germanna Point Drive
      Fredericksburg, VA 22408-9543
      (540) 891-3000
      Dental Hygiene (A)
      Licensed Practical Nurse (C)
      Nurse Aide (CS)
      Nursing (A)
      Paraprofessional Counselor (CS)
      Pharmacy Technician (CS)
      Practical Nursing (C)
      Psychology (A)
      Radiologic Technology (A)
      Registered Nurse (A)
      Surgical Scrub Nurse (CS)
      Veterinary Technology (A)

7. J. Sargeant Reynolds Community College*
   www.reynolds.edu
   a. Central Administrative Building
      1701 E. Parham Road
      Richmond, VA 23228
   b. Downtown Academic Campus
      700 E. Jackson St.
      Richmond, VA 23221
   c. Parham Road
      Academic Campus
      1651 E. Parham Road
      Richmond, VA 23228
   d. Ginter Park Campus
      3406 Brook Road
      Richmond, VA 23227
   e. West Park Campus
      1851 Dickinson Road
      Goochland, VA 23063
      Dental Hygiene (A)
      EMH (A)
      EMT-Enhanced (CS)
      EMT-Intermediate (CS)
      Licensed Practical Nurse (C)
      Medical Billing/Coding (C)
      Medical Secretary/ Transcription (C)
      Nurse Aide (CS)
      Nursing (A)
      Phlebotomy (C)
      Registered Nurse (A)
      Surgical Technician (C)
      Therapeutic Massage (C)

8. John Tyler Community College*
   www.jtcc.edu
   a. Chester Campus
      13101 Jefferson Davis Highway
      Chester, VA 23866
      (804) 304-7600
      Dental Hygiene (A)
      Licensed Practical Nurse (C)
      Nurse Aide (P)
      Optician (A)
      Optician Technician (C)
      Registered Nurse (C)
      Respiratory Care Therapy (A/CS)
      Sleep Technician (C)
      Substance Abuse and Education Counselor (A)
      Respiratory Therapy (A)

9. Lord Fairfax Community College*
   www.lfcc.edu
   a. Locust Grove
      10001 Germanna Point Drive
      Fredericksburg, VA 22408
      (540) 891-3000
      Dental Hygiene (A)
      Licensed Practical Nurse (C)
      Nurse Aide (CS)
      Optician (A)
      Paraprofessional Counselor (CS)
      Pharmacy Technician (CS)
      Practical Nursing (C)
      Psychology (A)
      Radiologic Technology (A)
      Registered Nurse (A)
      Surgical Scrub Nurse (CS)
      Veterinary Technology (A)

10. Mountain Empire Community College
    3441 Mountain Empire Road
    Big Stone Gap, VA 24219
    (276) 523-2400
    Emergency Medical Service (A)
    EMT-Intermediate (C)
    EMT-Paramedic (C)
    Environmental Science (A)
    Licensed Practical Nurse (C)
    Medical Assistant (C)
    Occupational Therapy Assistance (C)
    Pharmacy Technician (CS)
    Phlebotomy (CS)
    Radiologic Technician (A)
    Registered Nurse (A)
    Respiratory Therapy (A)

11. New River Community College
    1000 College Drive
    Dublin, VA 24084
    (540) 674-3600
    (989) 629-2722
    TDD (540) 674-3620
    Licensed Practical Nurse (C)
    Registered Nurse (A)

12. Northern Virginia Community College*
    www.nvcc.edu
    a. Alexandria Campus
       3001 N. Beauregard St.
       Alexandria, VA 22311-5007
       (703) 845-6020
    b. Annandale Campus
       8515 Little River Turnpike
       Annandale, VA 22003-3796
       (703) 323-3000
    c. Arlington Center
       4600 N. Fairfax Drive
       Arlington, VA 22203
       (703) 933-0632
    d. Loudoun Campus
       1000 Harry Flood Byrd Highway
       Sterling, VA 20164-8699
       (703) 450-2500
    e. Manassas Campus
       8901 Sully Road
       Manassas, VA 20109-2305
       (703) 567-6000
    f. Medical Education Campus
       6909 Springfield Center Drive
       Springfield, VA 22150-1913
       (703) 323-3000
    g. Reston Center
       1631 Wurlieh Avenue
       Reston, VA 20190
       (703) 945-7710
    h. Woodbridge Campus
       1500 Nokes Mills Road
       Woodbridge, VA 22191-4099
       (703) 879-5700
    i. Clinical Data Coding (CS)
    j. Medical Education Campus
    k. Vascular Sonography (C)

13. Patrick Henry Community College
    645 Patriot Ave.
    Martinsville, VA 24112
    www.ph.vccs.edu
    (276) 638-8777
    TDD (276) 656-0296
    Emergency Medical Service (CS)
    Phlebotomy (C)
    Respiratory Therapy (A)
    Substance Abuse Rehab Counselor (C)
    Veterinary Technology (A)

Virginia Community Colleges

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14. Paul D. Camp Community College* www.pdc.edu
   a. Franklin Campus
      100 N. Campus Drive
      Franklin, VA 23851
   b. Hobbs Suffolk Campus
      271 Kenyon Road
      Suffolk, VA 23434
   c. PDCCC at Smithfield
      253 James St.
      Smithfield, VA 23430
      Medical Office Billing Clerk (CS)
      Medical Office Specialist (CS)
      Nurse Aide (CS)
      Nursing (A)
      Phlebotomy (CS)
      Pre-Nursing (CS)

15. Piedmont Virginia Community College 501 College Drive
   Charlottesville, VA 22902
   www.pvcc.edu
   (434) 977-9000
   Diagnostic Medical Sonography (A)
   Emergency Medical Service (A)
   EMT-Intermediate (CS)
   EMT-Paramedic (CS)
   Health Information Management (C)
   Licensed Practical Nurse (C)
   Nursing (A)
   Radiographer (A)
   Surgical Technology (C)
   x. Rappahannock Community College* www.rappahannock.edu
      a. Glenns Campus
         12745 College Drive
         Glenns, VA 23149
         (804) 758-6700
         (804) 856-9361
      b. Warsaw Campus
         52 Campus Drive
         Warsaw, VA 22572
         (804) 333-6700
         (804) 836-9379
      c. King-George Site
         10100 Fosses Way
         King George, VA 22485
         (540) 775-0087
      Emergency Medical Service (A)
      EMT-Intermediate (CS)
      Licensed Practical Nursing (C)
      Nursing (A)
      Phlebotomy (CS)

17. Southside Virginia Community College* www.southside.edu
   a. Christanna Campus
      109 Campus Drive
      Alberta, VA 23011
      (434) 949-1000
   b. John H. Daniel Campus
      280 Daniel Road
      Keysville, VA 23947
      (434) 786-2000
   c. Pickett Park
      1841 W. 10th St.
      Blackstone, VA 23824
      (434) 292-3101
   d. Estes Community Center
      316 N. Main St.
      Chase City, VA 23924
      (434) 372-6194
   e. Cumberland Community Center
      1874 Anderson Highway
      Cumberland, VA 23040
      (804) 482-9275
   h. Southside Virginia Education Center
      1300 Greenville County Circle
      Emporia, VA 23847
      (434) 634-9358
   i. Lake County Advanced Knowledge Center
      118 E. Danville Road
      South Hill, VA 23970
      (434) 955-2252
   Emergency Medical Services (A)
   EMT-Basic (CS)
   EMT-Intermediate (CS)
   EMT-Paramedic (CS)
   Health Sciences (C)
   Medical Laboratory Technology (A)
   Medical Office Assistant (CS)
   Nursing (A)
   Respiratory Care (A)

18. Southwest Virginia Community College Kings Community Center
    Cedar Bluff, VA 24609
    www.sw.edu
    (276) 984-2555
    TDD (276) 984-7235
    EMT-Intermediate (CS)
    EMT-Paramedic (A/CS)
    Environmental Science (A)
    Gerontology (A)
    Health Sciences (C)
    Industrial Health and Safety (CS)
    Licensed Practical Nurse (C)
    Medical Coding (CS)
    Mind Health and Safety (CS)
    Nurse Aide (C)
    Nursing (A)
    Occupational Therapy Assistant (Dp)
    Pharmacy Technician (CS)
    Phlebotomy (CS)
    Psychology (A)
    Radiography (A)
    Respiratory Care (A)

19. Thomas Nelson Community College* www.tnc.edu
   a. 99 Thomas Nelson Drive
      Hampton, VA 23666
      (757) 825-2800
   b. Historical Triangle Campus
      4601 Opportunity Way
      Williamsburg, VA 23188
      (757) 253-4300
   c. Portsmouth Campus
      300 Granby St.
      Norfolk, VA 23510-1910
   d. Norfolk Campus
      1428 Cedar Road
      Norfolk, VA 23504
   e. Chesapeake Campus
      300 Granby St.
      P. O. Box 828
      Chesapeake, VA 23321
   f. Virginia Beach Campus
      1700 College Crescent
      Virginia Beach, VA 23453-1918
   g. Emergency Medical Services (A/CS)
      EMT-Intermediate (CS)
      EMT-Paramedic (CS)
      Funeral Service (A)
      Gerontology (CS)
      Health Information Management (A)
      Health Sciences (C)
      Medical Assistant (C)
      Medical Office Administration (C)
      Medical Secretary (C)
      Medical Sonography (A)
      Nurse Aide (C)
      Nursing (A)
      Occupational Safety (CS)
      Occupational Therapy Assistant (A)
      Physical Therapy Assistant (A)
      Physical Training and Fitness (A)
      Radiology (A)
      Respiratory Care (A)

20. Tidewater Community College* www.tcc.edu
    a. Chesapeake Campus
       1428 Cedar Road
       Chesapeake, VA 23322-7108
    b. Norfolk Campus
       301 Granby St.
       Norfolk, VA 23510-1910
    c. Portsmouth Campus
       120 Campus Drive
       Portsmouth, VA 23701
    d. Virginia Beach Campus
       1700 College Crescent
       Virginia Beach, VA 23453-1918

21. Virginia Highlands Community College
    100 VHCC Drive
    Abingdon, VA 24210
    (276) 739-2400
    (877) 207-6115
    www.vhcc.edu
    a. Abingdon Campus
       P. O. Box 828
       Abingdon, VA 24210
    b. Consciousness Campus
       1700 College Crescent
       Abingdon, VA 24212
    c. Kings Community Center
       Cedar Bluff, VA 24609
       www.sw.edu
       (276) 984-2555
       TDD (276) 984-7235
       EMT-Intermediate (CS)
       EMT-Paramedic (A/CS)
       Environmental Science (A)
       Gerontology (A)
       Health Sciences (C)
       Industrial Health and Safety (CS)
       Licensed Practical Nurse (C)
       Medical Coding (CS)
       Mind Health and Safety (CS)
       Nurse Aide (C)
       Nursing (A)
       Occupational Therapy Assistant (Dp)
       Pharmacy Technician (CS)
       Phlebotomy (CS)
       Psychology (A)
       Radiography (A)
       Respiratory Care (A)

22. Virginia Western Community College
    P. O. Box 14087
    Roanoke, VA 24038
    www.virginiawestern.edu
    (540) 857-WVCC (8922)

23. Wytheville Community College
    1000 E. Main St.
    Wytheville, VA 24382
    www.wcc.vccs.edu
    (276) 223-4700
    (800) 468-1195
    Dental Assisting (CS)
    Dental Hygiene (A)
    EMT (CS)
    EMT-Paramedics (A)
    Health Sciences (C)
    Licensed Practical Nurse (C)
    Medical Coding (CS)
    Medical Laboratory Technician (A)
    Medical Office Chair/Secretary (C)
    Medical Records Clerk (CS)
    Medical Transcriptions (A)
    Nursing (A)
    Occupational Therapy Assistant (C)
    Pharmacy Technician (CS)
    Phlebotomy (CS)
    Physical Therapist Assistant (A)
    Radiologic Technology (A)
    Respiratory Care (A)

* Programs vary by campus

Educational Institutions & Requirements • Virginia Community Colleges

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Virginia Hospitals and Health Care Facilities

Ameristist of Virginia
4252 Munor Drive
Marshall, VA 20116
(540) 364-1000
Nurse Aide (C)

Augusta Health Care Inc.
School of Clinical Lab Science
78 Medical Center Drive
P.O. Box 1000
Fishersville, VA 22939-1000
www.augustamed.com
(540) 332-4000
Clinical Laboratory Scientist (C)
Pharmacy Technician (O)
Physical Therapy Aide (O)

Augusta Nursing & Rehabilitation Center
33 Crossroads Lane
Fishersville, VA 22939
(540) 989-9424
Nurse Aide (C)

Autumn Care of Madison
One Autumn Court
Madison, VA 22727
(540) 948-3054
Nurse Aide (C)

Avante at Harrisonburg
94 South Ave.
Harrisonburg, VA 22802
(540) 332-4000
Nurse Aide (C)

Beverly Healthcare at Fredericksburg
3900 Plank Road
Fredericksburg, VA 22407
(540) 786-6551
Nurse Aide (C)

Beverly Healthcare Care - Blue Ridge
836 Glendale Road
P.O. Box 229
Galax, VA 24333-0229
(276) 238-9991
Nurse Aide (C)

Birmingham Green
8605 Centreville Road
Manassas, VA 20110
(703) 257-0935
Nurse Aide (C)

Bon Secours Hampton Roads
150 Kingsley Lane
Norfolk, VA 23505-0229
(757) 889-4560
Nurse Aide (C)

Bon Secours Mary NORSE Aide (C)
2 Bernadine Drive
Newport News, VA 23602
(757) 889-4560
Nurse Aide (C)

Bon Secours Memorial Regional Medical Center
8260 Attlee Road
Mechanicsville, VA 23116
(804) 784-5500
Registered Nurse (P)

Bon Secours Memorial School of Nursing
8950 Magellan Parkway, #1100
Richmond, VA 23227
(804) 627-5300
Nurse Aide (C)
Registered Nurse (P)

Bon Secours St.
Mary’s Hospital
5901 Bromo Road
Richmond, VA 23226
(804) 295-2011
Licensed Practical Nurse (P)
Medical Imaging (P)
Radiologic Technician (P)

Bridgeview Home Inc.
302 N. Second St.
Bridgeview, VA 22812
(540) 989-2531
Nurse Aide (C)

Camelot Hall of Lynchburg
5615 Seminole Ave.
Lynchburg, VA 24502
(434) 239-2657
Nurse Aide (C)

Camelot Health and Rehabilitation Center
1225 Reservoir St.
Harrisonburg, VA 22801
(540) 433-2523
Nurse Aide (C)

Carilion Bedford Memorial Hospital
1613 Oakwood St.
P.O. Box 888
Bedford, VA 24523-0888
(540) 986-2441
Licensed Practical Nurse (P)
Nurse Aide/Geriatric Aide (P)

Carilion Roanoke Memorial Hospital
1906 Belleview Ave.
P.O. Box 1337
Roanoke, VA 24033-3367
(540) 987-7000
Licensed Practical Nurse (P)
Nurse Aide (C)
Nuclear Medicine Technician (P)
Radiation Therapist (P)
Radiologic Technologist (P)

Carriage Place of Wytheville
990 Holston Road
Wytheville, VA 24382
(276) 228-9595
Nurse Aide

Companion Extraordinaire Nursing Network Inc
112 England St.
Ashland, VA 23005
(804) 752-2225
Nurse Aide

Danville Regional Medical Center
5112 College Street
Danville, VA 24541
(434) 799-4510
Nursing (Dp)
Radiologic Technology (C)

Eldercare Gardens
1150 Northwest Drive
Charlottesville, VA 22901
(434) 973-9600
Nurse Aide (C)

Evergreen Health & Rehabilitation
380 Millwood Ave.
Winchester, VA 22601
(540) 867-7010
Nurse Aide (C)

Fauquier Health, Rehabilitation and Nursing Center
360 Hospital Drive
Warrenton, VA 20186
(540) 349-1819
Nurse Aide

Friendship Manor Health Care
327 Hermitage Road N.W.
Roanoke, VA 24012
(540) 265-2150
Nurse Aide (C)

Genesis Healthcare
11 Dairy Lane
P.O. Box 419
Fredericksburg, VA 22404
(540) 371-9414
Nurse Aide

Golden Living Center
1725 Main St.
Clifton Forge, VA 24422
(540) 862-5791
Nurse Aide

Greensville Memorial Hospital
214 Weaver Ave.
Emporia, VA 23847-7802
(434) 348-2000
Licensed Practical Nurse (O)
Medical Transcriptionist (C)
Pharmacy Technician (O)
Phlebotomist (O)
Physical Therapy Aide (O)
Respiratory Care Technician (O)

Henrico Doctor’s Hospital
770 E. Parham Road
Richmond, VA 23229
(804) 747-5600
Nurse Aide (C)

Heritage Hall Healthcare
2045 Valley View Drive
Big Stone Gap, VA 24219
(276) 523-3000
Nurse Aide (C)

Heritage Hall Nursing & Rehabilitation Center
122 Monon Park Road N.W.
Leesburg, VA 20176
(703) 777-8700
Nurse Aide (C)

INOVA Fairfax Hospital
3300 Gallows Road
Falls Church, VA 22042-3000
(703) 776-4001
Medical Technologist (P)
Phlebotomist (O)
RN Graduate Transition Program (K)

John Randolph Medical Center
411 West Randolph Road
P.O. Box 871
Hopeville, VA 23860
www.johnrandolphmed.com
(804) 314-1600
Basic Rhythm Interpretation (X)
Monitor Surveillance Tech (X)
Nurse Aide (O)

John Randolph Nursing Home
490 West Randolph Road
P.O. Box 1826
Hopeville, VA 23860
(804) 452-3600
Nurse Aide (C)

Kissito Health Care
100 Alleghany Regional Hospital
Londonderry, VA 23116
(540) 935-2333
Nurse Aide

Loisdoun Nursing & Rehabilitation Center
235 Old Waterford Road
Leesburg, VA 20176
(703) 779-5458
Nurse Aide (C)

MG Home Health Services
33 Broad Street Road
Manakin-Sabot, VA 23103
(804) 708-0148
Nurse Aide

Montvue Nursing Home
30 Montvue Drive
Luray, VA 22835
(540) 743-4571
Nurse Aide (O)

Mount Vernon Nursing & Rehabilitation Center
1111 To Wall Drive
Alexandria, VA 22312
(703) 850-0000
Nurse Aide (C)

NHC Healthcare of Bristol
245 North St.
Bristol, VA 24201
(276) 869-4711
Nurse Aide

Norfolk Healthcare Center
901 E. Princess Anne Road
Norfolk, VA 23504
(757) 626-1642
Nurse Aide (C)

Oak Lea Nursing Home
1475 Virginia Ave.
Hampton, VA 23662
(757) 564-3500
Nurse Aide (C)

Oak Springs of Warrenton
30 Montvue Drive
Warrenton, VA 20186
(540) 800-2299
Nurse Aide

Refractory course for those already trained

Educational Institutions & Requirements • Virginia Hospitals and Health Care Facilities

Virginia Hospitals and Health Care Facilities

Educational Institutions & Requirements • Virginia Hospitals and Health Care Facilities
Virginia Hospitals and Health Care Facilities

Orange County Nursing Home & Home for Adults
120 Dogwood Lane
Orange, VA 22960
(540) 872-2111
Nurse Aide (C)

Patriots Colony at Williamsburg
8000 Patriots Colony Drive
Williamsburg, VA 23188
(757) 534-5887
Nurse Aide (C)

Prince William Hospital
18000 Sudley Road
Manassas, VA 20110
(703) 399-8500
Licensed Practical Nurse (P)
Ward Clerk/Unit Secretary (D)

Raleigh Court Healthcare Center
1527 Grandin Road S.W.
Roanoke, VA 24015
(540) 342-9525
Nurse Aide (C)

Rappahannock Westminster-Canterbury
132 Lancaster Drive
Lexington, VA 24450
(804) 438-4059
Nurse Aide

Richfield Recovery & Care Center
2615 W. Main St.
P.O. Box 3240
Salem, VA 24153
(540) 390-4500
Nurse Aide (C)

Riverside Lifelong Health and Aging Related Services
10200 Old Denbigh Blvd.
Newport News, VA 23602
(757) 534-8887
Nurse Aide

Riverside School of Health Careers
316 Main St.
Newport News, VA 23601
www.riversideonline.com
(757) 594-2720
LPN to RN (D)
Nurse Aide Education (P)
Radiologic Technology (D)
Registered Nurse (D)
Surgical Technology (D)

Rockingham Memorial Hospital
250 Castlecliff Ave.
Harrisonburg, VA 22801-3299
www.rmhonline.com
(540) 433-4100
Dietetic Technician (D)
Medical Technologist (P)
Nurse Aide (O)
Occupation Therapy Aide (O)
Pharmacy Technician (O)
Physiatrist (O)
Physical Therapy Aide (O)
Radiologic Technologist (P)

Sentara College of Health Professions
Crossways I, Suite 115
1441 Crossways Blvd.
Chesapeake, VA 23320
www.sentara.edu
Cardiac Imaging Technologist (P)
Cardiovascular Technologist (P)
Care Partner (P)
Licensed Practical Nurse (P)
Monitor Surveillance Technician (P)
Nurse Aide (P)
Registered Nurse (P)
Surgical Technologist (P)

Southside Community Hospital
800 Oak St.
Farmville, VA 23901
(434) 392-9811
Licensed Practical Nurse (P)

Southside Regional Medical Center School of Nursing
801 S. Adam St.
Petersburg, VA 23803
(804) 862-5800
(868) 338-7762
Radiologic Technologist (P)
Registered Nurse (P)

Sunnymede Retirement Community
3035 Sunnyside Ave., Suite A
Harrisonburg, VA 22801
www.sunnysidedccomunities.com
(540) 588-6200
Nurse Aide (C)

Trinity Mission Health and Rehab of Rocky Mount
P.O. Box 739
200 Hatchee St.
Rocky Mount, VA 24151
(540) 483-3261
Nurse Aide (C)

Twin City Regional Hospital
200 Hospital Drive
Galax, VA 24333
(757) 236-8181
Emergency Medical Technician (P)
Nurse Aide (O)
Psychiatric Therapy Aide (O)
Psychiatric Aide (P)

University of Virginia Health System
Department of Emergency Medicine
P.O. Box 80099
Charlottesville, VA 22908
(434) 924-8485
Cardiovascular Emergencies Emergency Medical Services Medical Toxicology

Virginia Commonwealth University Medical Center
Center for Trauma and Critical Care Education
West Hospital, 15th Floor, South Wing
1200 E. Broad St.
Richmond, VA 23219
www.vcu.edu
(804) 829-4204
Advanced Cardiac Life Support Critical Care Education

Virginia Health Services
540 Amberth Ave.
Newport News, VA 23601
(757) 595-2273
Nurse Aide

Virginia Health Services
York Convalescent & Rehab Center
113 Battle Road
Yorktown, VA 23692
(757) 595-2273
Nurse Aide

Waddell Nursing Home
202 Painter St.
Galax, VA 24333
(757) 236-5164
Nurse Aide (C)

Warren Memorial Hospital
1000 Shenandehoa Ave.
Front Royal, VA 22630
(540) 636-0260
Nurse Aide (P)
RN Refresher Course (R)

Westminster-Canterbury
1600 Westbrook Ave.
Richmond, VA 23227
(804) 263-4200
Nurse Aide (C)

Williamsburg Landing
5700 Williamsburg Landing Drive
Williamsburg, VA 23185
(757) 565-6555
(800) 554-5517
Nurse Aide (C)

Educational Institutions & Requirements • Virginia Hospitals and Health Care Facilities
Virginia Proprietary Schools

Proprietary schools are private business, trade, technical and correspondence schools that are certified in Virginia.

To enter a proprietary school, you must earn a high school diploma or GED, or you must demonstrate that the program would be beneficial to you. Health career programs available are listed for each school. Additional information about these programs and financial aid offered at each school can be found on the Virginia Career View microfiche at the library or at their website: www.vaview.vt.edu.

Practical Dental Assisting of Virginia Beach
5104 Greenville Road
Virginia Beach, VA 23462
(757) 239-0652
Medical Assistant

Professional Healthcare Institute
5385 Mapledale Plaza
Woodbridge, VA 22193
(703) 580-7961
Dental Assistant

RHS* Richmond School of Health and Technology
www.rhst.edu

a. Richmond (Main Campus)
1601 Willow Lawn Drive, Suite 320
Richmond, VA 23230
(804) 289-1000
b. Chester (Branch Campus)
751 W. Hundred Road
Chester, VA 23831
(804) 773-9161
Community Home Health Care (Op)

Unico Correspondence School
32088 Chincoteague Road
New Church, VA 23415-3617
(800) 667-0459
Home Health Aide

Worldwide Smiles Inc.
Virginia School of Dental Assisting
1131 Roanoke Road
Richmond, VA 23235
(804) 323-6323
Dental Assistant

* Programs vary by campus
Virginia Career and Technical Schools

Virginia Career and Technical Schools offer educational career training programs for students while they are attending high school. Students spend part of the day at the training center and the remainder of the day at their high school. Some area high schools and career and technical schools also offer a variety of occupational training classes for adults.

Health and medical sciences prepare students for careers in disciplines related to medicine, nursing, dentistry and allied health programs through therapeutic, diagnostic, rehabilitative, managerial and support services.

Local school divisions determine the structure of health and medical sciences courses. Programs may be offered in two- or three-hour blocks or in an one-hour block for the first year and a two-hour block the second year.

Health career programs available are listed for each school. Information about these programs and financial aid offered at each school can be found through the Virginia View.

The following information was supplied by the Virginia Department of Education’s Office of Career and Technical Education. Schools are listed alphabetically by the counties and cities that they serve.

Virginia Career View
www.vaview.vt.edu
<table>
<thead>
<tr>
<th>Educational Institutions &amp; Requirements</th>
<th>Virginia Career and Technical Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHESAPEAKE</td>
<td>Nurse Aide</td>
</tr>
<tr>
<td>Chesapeake Career for Science &amp; Technology</td>
<td>1617 Cedar Road, Chesapeake, VA 23322</td>
</tr>
<tr>
<td>(757) 547-0134</td>
<td>Emergency Medical Tech</td>
</tr>
<tr>
<td>(804) 698-6158</td>
<td>Nurse Aide</td>
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<tr>
<td>Health Assistant</td>
<td>Practical Nursing</td>
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<tr>
<td>CHESTERFIELD</td>
<td>Nurse Aide</td>
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<tr>
<td>Chesterfield Community High School</td>
<td>12400 Brandyers Bridge Road</td>
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<tr>
<td>Chester, VA 23831</td>
<td>(804) 768-6160</td>
</tr>
<tr>
<td>(757) 547-0134</td>
<td>Dental Assistant</td>
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<tr>
<td>(703) 858-1201</td>
<td>Emergency Medical Tech</td>
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<tr>
<td>Emergency Medical Tech</td>
<td>Intro to Health &amp; Medical Science</td>
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<tr>
<td>Medical Assistant</td>
<td>Nurse Aide</td>
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<td>Practical Nursing</td>
<td>Veterinary Assistant</td>
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<td>CLARKS</td>
<td>Nurse Aide</td>
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<tr>
<td>Clarke County High School</td>
<td>240 Westwood Drive, Berryville, VA 22911</td>
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<tr>
<td>(540) 955-6130</td>
<td>Health &amp; Medical Science</td>
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<tr>
<td>– Dual Enrollment</td>
<td>Nurse Aide</td>
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<tr>
<td>Emergency Medical Tech</td>
<td>Pharmacy Tech</td>
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<td>COLONIAL HEIGHTS</td>
<td>Nurse Aide</td>
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<tr>
<td>Colonial Heights Tech Center</td>
<td>3451 Conduit Road, Colonial Heights, VA 23834</td>
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<tr>
<td>(804) 524-3405</td>
<td>Emergency Medical Tech</td>
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<tr>
<td>(703) 619-3700</td>
<td>Intro to Health &amp; Medical Science</td>
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<tr>
<td>Medical Terminology</td>
<td>Medical Technology</td>
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<td>FALLS CHURCH</td>
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<tr>
<td>George Mason High School</td>
<td>7124 Leesburg Pike, Falls Church, VA 22403</td>
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<tr>
<td>(703) 258-6500</td>
<td>Emergency Medical Tech</td>
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<td>Veterinary Assistant</td>
<td>Intro to Health &amp; Medical Science</td>
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<tr>
<td>FAUQUER</td>
<td>Nurse Aide</td>
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<tr>
<td>Fairfax High School</td>
<td>690 Westover Road, Warrenton, VA 20186</td>
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<tr>
<td>(540) 347-6100</td>
<td>Emergency Medical Tech</td>
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<tr>
<td>Veterinary Assistant</td>
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<td>FAUQUER</td>
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<tr>
<td>Fairfax High School</td>
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<tr>
<td>(540) 347-6100</td>
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<td>Veterinary Assistant</td>
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<td>FLOYD</td>
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<tr>
<td>Floyd County High School</td>
<td>721 Baker St. S.W., Royston, VA 24891</td>
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<tr>
<td>(540) 745-9450</td>
<td>Emergency Medical Tech</td>
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<td>Intro to Health &amp; Medical Science</td>
<td>Nurse Aide</td>
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<td>FRANKLIN</td>
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<td>Franklin High School</td>
<td>310 Crescent Drive, Franklin, VA 23861-2399</td>
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<tr>
<td>(540) 372-1100</td>
<td>Emergency Medical Tech</td>
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<td>Emergency Medical Tech</td>
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<td>GALAX</td>
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<tr>
<td>Galax High School</td>
<td>200 Manassas Drive, Galax, VA 24333</td>
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<td>(276) 238-2991</td>
<td>Emergency Medical Tech</td>
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<td>Emergency Medical Tech</td>
<td>Intro to Health &amp; Medical Science</td>
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<td>GILES</td>
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<tr>
<td>Giles County High School</td>
<td>1827 Wenonah Ave, Pearland, VA 24132</td>
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<tr>
<td>(540) 921-1168</td>
<td>Emergency Medical Tech</td>
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<td>Intro to Health &amp; Medical Science</td>
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<tr>
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<tr>
<td>HAMPTON</td>
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<tr>
<td>Bethel High School</td>
<td>1067 Big Bethel Road, Hampton, VA 23866</td>
</tr>
<tr>
<td>(757) 825-4400</td>
<td>Emergency Medical Tech</td>
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<tr>
<td>Emergency Medical Tech</td>
<td>Intro to Health &amp; Medical Science</td>
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<td>Medical Terminology</td>
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<td>Pharmacy Tech</td>
<td>Practical Nursing</td>
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<td>HANOVER</td>
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<tr>
<td>Atlee High School</td>
<td>9414 Atlee Station Road, Mechanicville, VA 23116</td>
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<tr>
<td>(804) 723-2100</td>
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<tr>
<td>(757) 825-4400</td>
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<td>GREENSVILLE</td>
<td>Nurse Aide</td>
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<tr>
<td>Greensville County High School</td>
<td>403 Harding St, Emporia, VA 23947-2529</td>
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<tr>
<td>(434) 634-2195</td>
<td>Emergency Medical Tech</td>
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<td>Emergency Medical Tech</td>
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<td>GLOUCESTER</td>
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<tr>
<td>Gloucester County High School</td>
<td>9414 Atlee Station Road, Hampton, VA 23866</td>
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<tr>
<td>(757) 825-4400</td>
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<td>GROVEY</td>
<td>Nurse Aide</td>
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<tr>
<td>Grovey Country High School</td>
<td>520 Butler Farm Road, Hampton, VA 23866</td>
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<tr>
<td>(540) 693-2526</td>
<td>Emergency Medical Tech</td>
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<td>Emergency Medical Tech</td>
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<tr>
<td>Medical Terminology</td>
<td>Nurse Aide</td>
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</tbody>
</table>
Other Institutions with an approved Nurse Aide Education Program:

Abbott Education Center Inc. 5441 Virginia Beach Blvd., Suite 107 Virginia Beach, VA 23462 (757) 498-1780

Abral Training Center 4907 Fithugh Ave., Suite 203 Richmond, VA 23230 (804) 246-7753

Access Medical Institute and Technology, Inc. 6621 Richmond Highway, Suite 200 Alexandria, VA 22302 (703) 390-5800

Accuhealth Educational Systems 8965 Forest Hill Ave., Suite B Richmond, VA 23225 (804) 323-6900

Advanced Health Inc 9854 Business Way Manassas, VA 20110 (703) 391-7708

Alete Nurse Aide Program 801 Court St. Lynchburg, VA 24504 (434) 401-2441

American Red Cross – Alexandria 123 N. Alfred St. Alexandria, VA 22314 (703) 549-8300 (703) 290-2527

American Red Cross – Richmond 420 E. Cary St. Richmond, VA 23219 (804) 433-4297

American School of Nursing and Allied Health 149 Jefferson Davis Highway Woodbridge, VA 22191 (703) 795-8568

Asher Comprehensive Training Program 305 Plantview Road Richmond, VA 23224 (804) 235-4944

Blue Ridge Job Corps Academy 245 W. Main St. Marion, VA 24354 (276) 783-7221 (977) 824-2254

Blue Ridge Job Corps Academy 245 W. Main St. Marion, VA 24354 (276) 783-7221 (977) 824-2254

Blue Ridge Job Corps Academy 245 W. Main St. Marion, VA 24354 (276) 783-7221 (977) 824-2254

Global Health Nurse Training Services 25 S. Duiker Lane Lynchburg, VA 24504 (703) 212-7410

Grace Ministries Inc Priors United Methodist Church 13600 Frying Pan Road Herndon, VA 20171 (703) 753-0026

Health Care Educators 10301 Democracy Lane, Suite 100-A Fairfax, VA 22030 (703) 273-9191

Health Care Solutions 118 S. Adams St. Petersburg, VA 23803 (804) 732-7623

Health Education Inc. Tender Care Home Care Inc. 3112 Chestnut Ave. Newport News, VA 23607 (757) 247-7860 (757) 247-6200

Health Service and Education 12398 Warwick Blvd., Suite 204 Newport News, VA 23601

Herald Hall P.O. Box 912 161 Hospital Drive Cliftonwood, VA 24223 (703) 526-4693

Karlin Care Essentials Training Academy, LLC 77 Market St., Suite E Palmyra, VA 22963 (434) 589-2273

King’s Daughters Community Health & Rehabilitation Center 1410 N. Augusta St. Staunton, VA 24401 (540) 986-6233

Lucy Cor Village 6909 Lucy Cor Blvd. Chesterfield, VA 23832 (804) 748-1511

Maralex Allied Health Education Services 6822 Little River Turnpike, Units C & D Annandale, VA 22003 (703) 221-8900

Gee’s Career Training Institute 17/32 Jefferson Davis Highway, Suite L-2 Dumfries, VA 22026 (703) 221-8900

Generation Solutions – Lynchburg 2323 Memorial Ave., Suite 26 Lynchburg, VA 24501 (434) 455-0504

Global Health Nurse Training Services 25 S. Duiker Lane Lynchburg, VA 24504 (703) 212-7410

Grace Ministries Inc Priors United Methodist Church 13600 Frying Pan Road Herndon, VA 20171 (703) 753-0026

Health Care Educators 10301 Democracy Lane, Suite 100-A Fairfax, VA 22030 (703) 273-9191

Health Care Solutions 118 S. Adams St. Petersburg, VA 23803 (804) 732-7623

Health Education Inc. Tender Care Home Care Inc. 3112 Chestnut Ave. Newport News, VA 23607 (757) 247-7860 (757) 247-6200

Nightgale Educational Services 6151 Cherokee Ave., Suite 404 Alexandria, VA 22312 (703) 756-2996

Old Dominion Job Corps Center 1070 Father Judge Road P.O. Box 278 Monroe, VA 24574 (434) 929-0481

Pioneer Career Institute 420 S. Main St. Emporia, VA 23947 (434) 336-1383

Professional Career Institute 9200 Arbovetum Parkway, Suite 110 Richmond, VA 23226 (804) 227-9740

Professional Home Health Care & Associates 5504 Staples Mill Plaza Woodbridge, VA 22193 (540) 726-2328

Riverview Nursing Home 103 Virginia Ave. P.O. Box 327 Rich Creek, VA 24417 (540) 726-2328

Salem Health & Rehabilitation Center 1945 Roanoke Blvd. Salem, VA 24434 (540) 345-3844

Salvation Academy 5520 Cherokee Ave., Suite 220 Alexandria, VA 22312 (703) 763-1115 (703) 405-6485

Standard Health Care and Training Services Inc. 1073 W. Broad St., Suite 201 Falls Church, VA 22046 (703) 676-7720

Star Institute 8550 Lee Highway, Suite 400 Fairfax, VA 22031 (703) 569-7791

Ultimate HealthCare Services 3431 Collings Spring Road, Suite C Falls Church, VA 22041 (757) 933-9430

Woodrow Wilson Rehabilitation Center P.O. Box 1500 Fishersville, VA 22939 (540) 332-7140 (804) 345-9972

The Woodland Inc. 2003 Cabo Street Farmville, VA 23901 (434) 392-6186

Total Action Against Poverty/This Valley Works 108 Jefferson St., Suite 503 Roanoke, VA 24012-2686 (540) 767-6219

Touching Lives Medical Training Institute 235 Barrington Rd., Suite 101 Stafford, VA 22554 (540) 628-0210

Trinity Mission of Charlottesville LP 1150 Northwest Drive Charlottesville, VA 22901 (434) 975-0248

Trinity Mission of Farmville LP 1575 Scott Drive Farmville, VA 23901 (434) 392-8806

Trinity Mission of Rocky Mount LP 300 Hatcher St. Rocky Mount, VA 24151 (540) 493-5931

Visiting Nurse Solution Learning Center 4810 Beauregard St., Suite 220 Alexandria, VA 22312 (703) 642-3737

Educational Institutions & Requirements • Other Institutions
# Educational Requirements

As a general rule, careers will require the amount of education and training specified in the following chart. However, these are general guidelines only. Always consult with a designated representative from the institution or program you are considering to obtain specific information on admission, graduation and certification/licensure criteria.

<table>
<thead>
<tr>
<th>High School Diploma/GED equivalent and six weeks to two years of additional education and/or on-the-job training</th>
<th>Two to four years of college, usually resulting in an associate or bachelor’s degree</th>
<th>Four years of college plus graduate school, usually leading to a master’s degree</th>
<th>Four years of college plus four to eight years of graduate or professional school and training, frequently leading to a doctoral degree</th>
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<tbody>
<tr>
<td>Athletic Trainer</td>
<td>Audiologist</td>
<td>Biologist</td>
<td>Chiropractor</td>
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<td>Counselor</td>
<td>Biomedical Engineer</td>
<td>Biostatistician</td>
<td>Dentist</td>
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<tr>
<td>Cytotechnologist</td>
<td>Clinical Nurse</td>
<td>Specialist</td>
<td>Epidemiologist</td>
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<tr>
<td>Dental Laboratory Technician</td>
<td>Creative Arts Therapist</td>
<td>Gerontologist</td>
<td>Optometrist</td>
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<td>Eletroneurodiagnostic Technician</td>
<td>Health Services</td>
<td>Health Services Administrator</td>
<td>Pharmacist</td>
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<tr>
<td>Environmental Health Specialist</td>
<td>Nurse Anesthetist</td>
<td>Nurse Midwife</td>
<td>Physician</td>
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<td>Genetic Counselor</td>
<td>Nurse Practitioner</td>
<td>Orthotist</td>
<td>Podiatrist</td>
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<td>Health Educator</td>
<td>Physical Therapist</td>
<td>Prosthetist</td>
<td>Psychologist</td>
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<td>Health Sciences Librarian</td>
<td>Speech/Language Pathologist</td>
<td>Research Scientist</td>
<td>Research Scientist</td>
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<td>Histotechnologist</td>
<td>Social Worker</td>
<td>Therapeutic Recreation Specialist</td>
<td>Social Worker</td>
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<td>Therapist</td>
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<td>Medical Laboratory Technician</td>
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<td>Respiratory Care Therapist</td>
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<td>Social Worker</td>
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Financial Aid

Types of Financial Aid
Federal Financial Assistance Programs
State Financial Assistance Programs
Additional Resources
There are many sources and types of financial aid available for those interested in a health career. Need-based financial aid comes from federal, state, institutional and private sources. Types of aid include grants, scholarships, work-study employment and loans. Individual colleges and universities are the best source for information on financial aid. Most have federal programs, whereas state programs vary between states.

**Grants**
Do not require repayment and are usually based on financial need alone.

**Loans**
Funds that can be borrowed at relatively low interest rates. Repayment of the loan usually begins as soon as the student withdraws or graduates from school, although some loans require that payments begin as soon as the lump-sum loan is received.

**Scholarships**
Awarded for outstanding academic performance or fulfillment of some other criteria — from financial need to athletic talent. Scholarships cover costs associated with schooling, such as tuition, books, fees or housing and usually don’t have to be repaid.

**Work-study programs**
Allow students to earn money by working part time, on or off campus, during the school year. Most work-study programs are for those who demonstrate financial need.
Federal Financial Assistance Programs

Federal Work-Study Program
This program arranges employment opportunities through the school either on or off campus. Undergraduate and graduate students in need of financial aid and enrolled in an eligible program at least half time may apply. When assigning work hours, students’ class schedules, health and academic progress are considered. Pay for employment is at least the current federal minimum wage, but may be related to the type of work and skills required. The award depends upon the funds the school has to distribute and the aid the student has received from other programs.

Indian Tribal Grants and Loans
More than 45 Indian tribes have established their own grant and loan programs to assist their members in financing higher education. For more information contact: U.S. Department of the Interior, Bureau of Indian Affairs, Washington, DC 20240. U.S. Department of Health and Human Services administers a variety of financial assistance programs for student enrolled in health professions programs. For more information, contact the college’s financial aid office or the U.S. Department of Health and Human Services at www.dhhs.gov.

National Health Service Corps Scholarship
This competitive program is open to U.S. citizens who are full-time students of dentistry (DDS or DMD) or medicine (MD or DO), and to certified nurse practitioners, certified midwives and physician assistants in primary care. The program pays for tuition, fees, books and equipment and provides a monthly stipend. The National Health Service Corps Scholars are committed to serve one year for each year of support (minimum two years of service) at an approved site in a high-need Health Professional Shortage Area soon after they graduate, serve a primary care residency (family medicine, general pediatrics, general internal medicine, obstetrics/gynecology or psychiatry for physicians and general or pediatric for dentists) and are licensed.

Scholars compete for employment at the approved service sites of their choice from a listing of job vacancies in their discipline and specialty. The NHSC helps scholars select a compatible service site and pays for travel to and from interviews. For information or an application, email CallCenter@hrsa.gov, call toll free at (800) 221-9393 or visit their website at nhsc.hrsa.gov/scholarship.

Nursing Student Loan Program
Low-interest loans are available to full- or half-time students pursuing a course of study leading to a diploma, associate, baccalaureate or graduate degree in nursing. For more information, contact the college’s financial aid office or visit the Health Resources and Services Administration website at www.hrsa.gov/loanscholarships.

Pell Grant
This program allows undergraduate students enrolled at least half time in an eligible program to apply. Eligibility depends on need and is determined by a formula used by the Department of Education based on information provided in the Free Application for Federal Student Aid. Awards for each academic year depend on program funding and individual student circumstances. Contact the financial aid office at your institution.
Federal Financial Assistance Programs

**Federal Programs**
We offer the following types of aid to help you pay for your education after high school:
- Grants – student aid funds that do not have to be repaid (other conditions apply)
- Work-Study – a part-time work program to earn money while you are in school
- Federal Loans – student aid funds that you must repay with interest

**Types of federal student loans:**
- Perkins
- Direct Stafford
- Direct PLUS (graduate and professional degree student borrowers)
- Direct PLUS (parent borrowers)
- Direct Loan Consolidation

**Explore Other Sources of Aid**
- More federal aid sources – Department of Veterans Affairs, Disabled American Veterans, Americorps, Department of Health and Human Services, Department of Labor
- Your college, university or career school
- State higher education agencies
- Scholarships
- Scholarships for military families
- [www.usajobs.gov](http://www.usajobs.gov)

**Perkins Loan**
This type of loan has an interest rate of five percent. Repayment must begin within six to nine months after the student leaves school or otherwise becomes ineligible. Undergraduate and graduate students enrolled in an eligible program at least half time and demonstrating exceptional need may apply. Depending upon a student’s financial need and the availability of these loan funds at the school they plan to attend, a student may borrow up to $5,500 per year for undergraduate and $8,000 per year for graduate or professional study (the total amount borrowed under Perkins, including undergraduate study, is limited). Contact the financial aid office at your institution. This program is campus-based, with the award amount controlled by the school.

**PLUS Loans**
Parents of students enrolled at least half time in an eligible program may apply for PLUS loans. Financial need does not have to be proven, but borrowers will have to undergo a credit analysis. The borrowing limit is established as the cost of attendance minus other financial aid received. The PLUS amounts are in addition to the Stafford Loan borrowing limit. Effective July 1, 2011, all new PLUS loans carry a fixed rate of 7.9 percent. Repayment must begin 60 days immediately after the final disbursement of the loan. Contact participating lenders or the school’s financial aid office.

**Stafford Loan**
This loan has a low interest rate. Repayment must begin six to nine months after the student leaves school or otherwise becomes ineligible. Undergraduate and graduate students enrolled at least half time in an eligible program may apply. Some borrowers may need to show Pell Grant eligibility. The actual amount you can borrow each year depends on your year in school, whether you are a dependent or independent student, and other factors, and may be less than the maximum amounts shown in the loan limit chart. The total Stafford Loan debt cannot exceed $23,000 for a dependent undergraduate, $46,000 for an independent undergraduate and $138,500 for a graduate or professional student, including the amount borrowed as an undergraduate. Contact participating lenders or the school’s financial aid office, or visit [www.staffordloan.com](http://www.staffordloan.com).

**Supplemental Educational Opportunity Grant**
Undergraduate students enrolled in an eligible program may apply. Students must demonstrate financial need and be unable to continue their education without assistance. Priority is given to Pell Grant recipients. Awards depend on the availability of funds at the school and the financial aid the student has received from their programs. Contact the financial aid office at your chosen institution. This program is campus-based, with the award amount controlled by the school.
State Financial Assistance Programs

Academic Common Market
A cooperative tuition-reduction agreement among southern states allows students to pay in-state tuition at non-Virginia colleges or universities while studying select programs that are not available at public institutions in Virginia. Students must be Virginia residents and accepted into a participating program. SCHEV coordinates Virginia's participation in the Southern Regional Education Board's Academic Common Market. Applicable education programs are at the baccalaureate or graduate degree level only. Institution application requirements must be fulfilled by applying directly to the specific college or university. Virginia residents seeking information about these programs should contact the ACM Coordinator for Virginia; State Council of Higher Education for Virginia, James Monroe Building, 101 N. 14th St., 10th Floor, Richmond, Va. 23219, call (804) 225-2600 or visit the Web at www.schev.edu/students/AcademicCommonMkt.asp.

College Scholarship Assistance Program
This program is a statewide need-based undergraduate grant program established in 1973 to assist students with extreme financial need in Virginia’s public and participating private colleges and universities. Grants range from $400 to $5,000 depending upon student financial need and available funds.

Granville P. Meade Scholarship
This scholarship is available to Virginia high school seniors who have obtained high academic standing but are unable to attend college due to financial constraints. This scholarship is available for students who wish to attend a Virginia college or university. In previous years, the amount of the scholarship was $2,000 per year for four years. Renewal of the scholarship each year is dependent upon the student continuing to meet the requirements of the scholarship. For more information, contact your high school principal or guidance office.

Lee-Jackson Scholarship Program
This privately funded program, administered by the Virginia Department of Education, offers scholarships to Virginia high school juniors or seniors submitting the best essays on the career, character or some other aspect of the life of either Gen. Robert E. Lee or Gen. “Stonewall” Jackson, or both. An additional $1,000 award will be given to the author of the top essay in each region. Eligible applicants must be a junior or senior in a Virginia public or private high school or home school who plans to attend an accredited four-year college. Financial need is not considered. Applications may be obtained from a high school guidance counselor approximately the last week of September of each school year. For additional information contact your local high school or the Lee-Jackson Foundation at (434) 977-1861.

State Financial Assistance Programs
The State Council of Higher Education for Virginia has administrative and financial oversight over most of the following programs. However, the application and award processes are administered by participating Virginia colleges and universities. For all need-based state financial aid, the minimum application procedure requires completion of the Free Application for Federal Student Aid. For additional details and application procedures, contact the financial aid office at the institution you plan to attend.

State programs
- Academic Common Market
- College Scholarship Assistance Program
- Granville P. Meade Scholarship
- Lee-Jackson Scholarship Program
- Mary Marshall Nursing Scholarship
- Senior Citizens Tuition Waiver
- Soil Scientists Program
- Tuition Assistant Grant Program
- Tuition Grant Program For Foster Care and Special Needs Adoption Recipients
- Two-year Transfer Grant Program
- Virginia College Savings Plan
- Virginia Commonwealth Award Program
- Virginia guaranteed assistance program
- Virginia Nurse Educator Scholarship Program
- Virginia Nurse Practitioner/Nurse Midwife Program Scholarship
- Virginia part-time assistance program
- Virginia Rural Dental Scholarship and Loan Repayment Program

www.schev.edu
www.FAFSA.ed.gov
State Financial Assistance Programs

Mary Marshall Nursing Scholarship for Licensed Practical Nurses (LPN) and Registered Nurses (RN)

This award is available to residents of Virginia who are enrolled in accredited undergraduate or graduate nursing programs leading to an associate degree, diploma, or baccalaureate degree in nursing. Graduate nursing programs are those offering master’s and doctoral degrees. If already enrolled in a nursing program, students are required to have a cumulative GPA of at least 2.5. To receive this award, students must agree to engage continuously in nursing practice in the commonwealth for one month for each $100 of scholarship awarded. For more information, contact the Virginia Department of Health at 109 Governor St., Suite 1016, Richmond, Va., 23219 or (804) 864-7435 or visit the Web at www.vdh.virginia.gov/healthpolicy.

Senior Citizens Tuition Waiver

This program provides tuition waivers for credit courses for Virginia residents aged 60 and older who have not exceeded income guidelines.

Soil Scientist Program

This program awards tuition and required fees for soil science students at Virginia Tech. Recipients must be Virginia residents and agree to work one year for each year the scholarship is awarded. For more information, call the Department of Agronomy at Virginia Tech, (540) 231-6300.

Virginia Nurse Educator Scholarship

This award is available to residents of Virginia enrolled in an accredited master’s- or doctoral-level nursing program in Virginia who will complete the degree requirements within two years. To receive this award, students must agree to serve via teaching in a school of nursing in the commonwealth for two years for each year of scholarship awarded. For more information, contact the Virginia Department of Health at 109 Governor St., Suite 1016, Richmond, Va., 23219 or (804) 864-7435 or visit the Web at www.vdh.virginia.gov/healthpolicy.

Virginia Nurse Practitioner/Nurse Midwife Scholarship

This award is available to residents of Virginia who are nurse practitioner/nurse midwife students at an accredited nursing program in Virginia. To receive this award, students must agree to practice as a nurse practitioner or nurse midwife in an underserved community in Virginia following graduation for a period of years equal to the number of annual scholarships received. For more information, contact the Virginia Department of Health at 109 Governor St., Suite 1016, Richmond, Va., 23219 or (804) 864-7435 or visit the Web at www.vdh.virginia.gov/healthpolicy.

SCHEV-administered Programs

The following programs are for Virginia residents. The State Council of Higher Education for Virginia administers the application process and determines student eligibility for each program. Contact SCHEV for applications or download via their website at www.schev.edu.

SCHEV programs

- Academic Common Market
- Granville P. Meade Scholarship
- Tuition Assistance Grant Program
- Two-year Transfer Grant Program

Financial Aid • State Financial Assistance Programs
State Financial Assistance Programs

Tuition Assistance Grant Program
This non-need-based grant assists Virginia residents who attend accredited private, nonprofit colleges or universities in Virginia whose primary purpose is to provide collegiate, graduate or professional education and not to provide religious training or theological education. The program is open to full-time graduate, undergraduate or professional students. The amount varies depending upon the number of eligible applicants; the maximum award is $2,650 for undergraduates and $1,150 for graduate students in 2011-12. For an application, contact your college financial aid office.

Tuition Grant Program for Foster Care and Special-Needs Adoption Recipients
This program provides up to tuition and fees at any Virginia community college specifically for high school graduates or general education development completers who were in foster care, in the custody of a social services agency or considered a special-needs adoption at the time of graduation or completion of the GED.

Two-Year Transfer Grant Program
This program provides grants to residents of Virginia who have successfully completed an acceptable associate degree program at a Virginia community college and have been admitted to a Virginia four-year college or university. To be eligible for this grant, students must have obtained a GPA of 3.0 on a 4.0 scale while obtaining their associate degree. Renewal of this grant for additional years is conditional upon the student maintaining good academic standing with the college or university where they are enrolled. The standard maximum award granted is $1,000 with an additional $1,000 available for students enrolled in engineering, mathematics, nursing, teaching and science programs. For more information about the Community College Transfer Grant Program, visit the State Council of Higher Education for Virginia website at www.schev.edu.

Virginia College Savings Plan
Virginia offers four tax-advantaged Section 529 college savings programs administered by Virginia College Savings Plan, an independent state agency: Virginia Prepaid Education Program, the Virginia Education Savings Trust, College America and CollegeWealth. They all offer significant tax advantages and can be used at colleges nationwide. For more information visit: www.Virginia529.com and www.americanfunds.com.

Virginia Commonwealth Award Program
This program assists undergraduate students with financial need and graduate students to pay part of their college costs. The funds are appropriated directly to each state-supported institution. Funds may be used for need-based grants to Virginia resident undergraduates or for grants or assistantships to graduate students (both in-state and out-of-state). Awards to undergraduates are proportional to need so that the students with the greatest need receive the largest awards.

Other Virginia Agency Programs
These programs are offered by various agencies in Virginia:
- Lee-Jackson Scholarship Program
- Nurse Practitioner/Nurse Midwife Program Scholarship
- Virginia College Savings Plan
- Virginia Rural Dental Scholarship and Loan Repayment Program
State Financial Assistance Programs

**Virginia Guaranteed Assistance Program**

This program provides incentives to financially needy students now attending elementary and secondary school in Virginia to raise their expectations and academic performance and to consider higher education an achievable objective in their future. Students must graduate from a Virginia high school with at least a 2.5 GPA, or if a home school completer achieves an SAT verbal and math combined score of at least 900 or ACT Composite score of at least 19, be classified as a dependent and be able to demonstrate financial need. The neediest students are guaranteed at least tuition at a Virginia public college or university and may receive tuition, required fees and an allowance for books. Renewal awards are possible as long as the student maintains continuous full-time enrollment with at least a 2.0 GPA in college.

**Virginia Part-Time Assistance Program**

The purpose of this program is to assist part-time undergraduate students with financial need to pay part of their college costs. The funds are appropriated directly to each of Virginia’s community colleges. Funds may be used for need-based grants to Virginia resident undergraduates enrolled part time.

**Virginia Rural Dental Scholarship and Loan Repayment Program**

The Virginia Rural Dental Scholarship program annually awards up to five scholarships for a maximum of $5,000 per year to dental students. Recipients agree to work in an area of need or for the state of Virginia for one year per every year of scholarship awarded. The Virginia Department of Health offers loan repayment through a federal grant to dentists practicing in dental Health Professional Shortage Areas. Dentists may work in federally qualified community health centers and some Virginia Department of Health local health department clinics. Dentists in private practice may also qualify, provided they accept patients with government-sponsored insurance programs (e.g., Medicaid, FAMIS) and do not limit the number of those patients in their practice. For more details, see the information sheet at www.vahealth.org/dental.
Cooperative Education
Cooperative education offers paid employment opportunities to those attending school, integrating a student’s academic and career interests. For more information, contact the college’s admissions office or cooperative education office, or contact the National Commission for Cooperative Education at 360 Huntington Ave., 384CP, Boston, MA 02115-5096, call (617) 373-3770 or visit www.co-op.edu.

Health-Related Companies
Some health care-related companies offer scholarships, grants and other forms of financial aid to individuals pursuing health care careers. Pharmaceutical manufacturers, health care products companies, hospital supplies distributors and health insurance companies often sponsor financial aid programs for health careers students. Contact individual corporations for information about possible financial aid offers.

Hospitals and Hospital Auxiliaries
These organizations may pay for books and tuition for enrollees in their hospital health careers programs. Scholarships may require a service obligation to the hospital. Some hospitals may offer scholarships at local colleges and vocational schools that provide health career training.

Professional Health Organizations
National, state and local chapters of health professions organizations often sponsor financial aid programs for the individual health occupations they represent.

Other Sources
Organizations, Businesses and Associations
Many organizations and clubs at the local, state and national level provide financial aid. Some offer assistance to any qualifying candidate, others require that a student or a member of the student’s family be a member of the association, company or organization.

Check with: youth groups, such as Boy Scouts, Girl Scouts, 4-H clubs, YMCA/YWCA, Explorers; civic, fraternal, or service organizations, such as the American Legion, Chamber of Commerce, Rotary, Jaycees, Kiwanis, Lions, Optimists; and special interest organizations, such as women’s clubs and religious or ethnic organizations. Also, check with businesses, corporations, labor unions, charitable organizations and foundations (some programs may be restricted to employees or their children).
Additional Resources

Hot Tips – Web Links

• www.studentaid.ed.gov – Provides links to scholarship and grant sites, state aid information, and much more!

• www.usajobs.gov – Developed as a partnership between the U.S. Office of Personnel Management and government agencies, this website is similar to students.gov but focuses on employment. Click on “Students and Recent Graduates” for numerous sources of federal scholarships, internships, fellowships, etc.

• www.careeronestop.org – A variety of useful information from how to further your education to suggestions to help you with a job search

• www.actstudent.org – Information and resources on financial aid can be found under Student Loans.

• Funding Education Beyond High School, 2011-12 in both English and Spanish online at studentaid.ed.gov – Provides a comprehensive resource on student financial aid from the U.S. Department of Education. Grants, loans and work-study are the three major forms of aid available through the department’s Federal Student Aid Office. This manual tells you about the programs and how to apply for them.

• www.college.gov (or www.college.gov/wps/portal) – Intended to be the go-to source for information and resources about planning, preparing and paying for education beyond high school. It’s intended to provide inspiration, hope and encouragement for all students to continue their education.

• www.braintrack.com/colleges-by-career – Offers in-depth U.S. career profiles and college listings as well as degree and wage statistics for more than 400 occupations that commonly require college or university education for entry or advancement.

• www.sampleresume.net/Financial-Aid – Has significant information and resources about all aspects of the college financial aid process, from grants to loans to scholarships and fellowship programs.

Hot Tips – Publications


Make your educational dreams come true!

Worried about how to pay for college? Afraid of drowning in a sea of student debt? There are billions of scholarship dollars out there for students with all types of interests, skills and backgrounds.

“How to Go to College Almost for Free,” Ben Kaplan, Collins Reference; 2nd edition, 2001. Now in this fully revised and updated edition, Ben Kaplan distills his proven step-by-step game plan that positions you to win big money for college — regardless of your age, GPA, financial situation or family background. With humor and insight, he reveals insider secrets for successfully finding, applying for and winning lucrative scholarship awards — empowering you with the information, inspiration and know-how to afford the college of your choice and realize your educational dreams.

“How to Get Money for College,” Peterson’s; 28 edition, 2010. A great resource for anyone looking to supplement his or her federal financial aid package with aid from colleges and universities. This comprehensive directory points you to complete and accurate information on need-based and non-need gift aid, loans, work-study, athletic awards and more. The unique and easy-to-use Colleges-at-a-Glance comparison chart lists the full costs that can be expected, aid packages and more for each of more than 2,100 four-year colleges and universities, organized by state.

“Getting Financial Aid 2011,” College Board; 5th edition, 2010. A source for parents and students challenged by the cost of college. The all-important FAFSA form is simplified with step-by-step instructions, and the College Board’s CSS/Financial Aid PROFILE form is explained by the people who created it. The guide includes information and advice from experts on how to apply for aid, plus easy-to-compare college profiles giving the “financial aid picture” for more than 3,000 four-year and two-year colleges and technical schools, showing award amounts and requirements. No other directory has this level of detail! Completely revised to reflect current federal laws and college policies.


• How to calculate what colleges will expect you to pay
• Savvy steps that will increase your chances of receiving aid
• Long- and short-term ways to lower college costs, regardless of income
• How to compare aid offers — and how to appeal them if they are not enough
• Strategies for divorced or single parents and independent students
• The most costly mistakes parents and students make when applying for aid
• How to access free online updates on college funding

Financial Aid • Additional Resources
“How You Can Maximize Student Aid,” TracyTrends; 1st edition, 2011. Explains the components that determine federal student aid, the better places to save and what you should think about come tax time. The goal is to maximize aid while keeping assets accessible, growing with tax benefits. A mistake on the FAFSA can result in loss of several thousands of dollars in aid. This valuable reference guide will provide you with new ideas and help you prioritize, whether you are saving for a newborn or if college is looming just around the corner.

YOUR REAL FRESHMAN ORIENTATION GUIDE

After years of standardized tests, group projects, community service and high school woes, you’ve finally made it to college. So, what now?

Peter Feaver, Sue Wasiolek and Anne Crossman, “Getting the Best Out of College,” Ten Speed Press; 2008. Answering the all-too-familiar groan “I wish I’d known that as a freshman,” a professor, a dean and a recent grad distill more than 50 years of expertise at top colleges into this crash-course guide to success. Proving that it matters less where you go than what you accomplish while you’re there, they reveal secrets that most undergrads learn the hard way (if at all), such as how to impress professors, live with roommates, select the best courses, plan your major, prepare for life in the real world and more. College is a huge investment of time, money, and yourself. “Getting the Best Out of College” is essential to making the most of that investment.

Carol Stack and Ruth Vedvik, “The Financial Aid Handbook,” Career Press; Original edition, 2011. In today’s tough economy, a college degree is more important — and more expensive — than ever before. "The Financial Aid Handbook" is the definitive, one-stop guide to the college selection and payment process, covering everything from basic timelines and tuition costs to predicting your scholarship award from colleges and taking ownership of student debt after graduation. Families and students will appreciate the straightforward language, engaging explanations and hundreds of tips to maximize their financial aid — the scholarship funds that come from the colleges themselves. No other book on the market teaches students and parents how to find real, four-year scholarships ... and how to land them. "The Financial Aid Handbook" is the only book families will need to find the right college at the right price.
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Reference Materials

General information for this supplement was obtained from the following sources:

- Individual hospital/school contacts
- State Council of Higher Education for Virginia: www.schev.edu
- Virginia Department of Education: www.doe.virginia.gov
- Virginia college/university websites
- Virginia Community College System: www.vccs.edu
- Virginia Department of Health Professions: www.dhp.state.va.us
- Smart Moves for a Better Future, a booklet from the Better Information Project of the State Council of Higher Education for Virginia
- 270 Ways To Put Your Talent To Work in the Health Field by the National Health Council
- Health Occupations Education: www.doe.virginia.gov/instruction/career_technical/health_medical_sciences
- 2011 Colleges Scholarships/Financial Aid: http://fbscholarship.info

Note: Information is used as a guide to available professional health care educational programs based in Virginia and is in no way inclusive.

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Appendix • Credits
Partners in Promoting Primary Care Careers

Virginia Health Care Foundation
The Virginia Health Care Foundation is pleased to underwrite this edition of Virginia Health Careers. This reference guide is an important part of the foundation’s effort to help Virginia “grow its own” primary health care professionals. VHCF promotes and funds public-private partnerships that increase access to primary care services for uninsured and medically underserved Virginians. For more information on grant guidelines, current projects throughout the commonwealth or other initiatives of the foundation, contact:

Virginia Health Care Foundation
707 E. Main St., Suite 1350
Richmond, VA 23219
(804) 828-5804
www.vhcf.org

Virginia Area Health Education Centers Program
The mission of the Virginia AHEC Program is to promote health careers and access to primary care for medically underserved populations through community-academic partnerships. The VaAHEC program 1) implements health careers recruitment programs for students, especially underrepresented minorities, or those from disadvantaged or rural backgrounds in HPSA/MUA/MUP areas; 2) improves access to a diverse, culturally competent and sensitive health professions workforce by providing educational opportunities for residents from underserved areas in health professions that support primary care as well as by providing support services for residents; 3) reduces fragmentation and improves coordination of clinical education of health professionals by supporting community-based training of primary care health professions to students, residents and other health profession students in HPSA, MUA, MUP regions on a yearly basis; 4) enhances the knowledge and skills of health professional students and providers by supporting interdisciplinary education opportunities for health professionals on a yearly basis; 5) sponsors continuing education and information dissemination programs for health professionals serving underserved and health disparities populations on a yearly basis; and 6) collaborates with local, state and regional health, education and human services organizations to identify and address health workforce distribution issues and health disparities in HPSA/MUA/MUP areas.

Virginia AHEC Program Office
P.O. Box 980535
Richmond, VA 23298-0535
vaahc@gmail.com