

CAREER GUIDE FOR PHARMACISTS

SOC Code: 29-1051

Pay Band(s): 5 and 6

[\(Salary Structure\)](#)

Standard Occupational Description: Compound and dispense medications following prescriptions issued by physicians, dentists, or other authorized medical practitioners.

Pharmacist positions in the Commonwealth are assigned to the following Roles in the [Pharmaceutical Services Career Group](#):

[Pharmacist I](#)

[Pharmacist II](#)

[Pharmacy Manager](#)

While Pharmacists within the Commonwealth are all located within the Pharmaceutical Services Career Group, individuals may want to pursue other opportunities within the Commonwealth depending upon individual training, education, knowledge, skills, abilities, and interests.

Other Career Group(s) that may be of interest are:

[Health Care Compliance](#)

[General Administration](#)

[Program Administration](#)

SKILLS, KNOWLEDGE, ABILITIES AND TASKS

(Technical and Functional Expertise)

Skills

Note: *The technical and functional skills listed below are based on general occupational qualifications for Pharmacists commonly recognized by most employers. Typically, you will not be required to have all of the skills listed to be a successful performer. Recruitment and selection standards for an individual state job must be based on the specific knowledge, skills, and abilities for that job as indicated in the job announcement and job description in the Employee Work Profile.*

1. Understanding written sentences and paragraphs in work related documents.
2. Using scientific rules and methods to solve problems.
3. Using mathematics to solve problems.
4. Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
5. Communicating effectively in writing as appropriate for the needs of the audience.
6. Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
7. Considering the relative costs and benefits of potential actions to choose the most appropriate one.
8. Talking to others to convey information effectively.
9. Understanding the implications of new information for both current and future problem solving and decision-making.

10. Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Knowledge

Note: *The technical and functional knowledge statements listed below are based on general occupational qualifications for Pharmacists commonly recognized by most employers. Typically, you will not be required to have all of the knowledge listed to be a successful performer. Recruitment and selection standards for an individual state job must be based on the specific knowledge, skills, and abilities for that job as indicated in the job announcement and job description in the Employee Work Profile.*

The Knowledge of:

1. Chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.
2. Information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.
3. Business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
4. Plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
5. Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
6. Structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
7. Administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.
8. Arithmetic, algebra, geometry, calculus, statistics, and their applications.
9. Principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.
10. Principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

Abilities

Note: *The technical and functional abilities listed below are based on general occupational qualifications for Pharmacists commonly recognized by most employers. Typically, you will not be required to have all of the abilities listed to be a successful performer. Recruitment and selection standards for an individual state job must be based on the specific knowledge, skills, and abilities for that job as indicated in the job announcement and job description in the Employee Work Profile.*

The Ability to:

1. Read and understand information and ideas presented in writing.
2. Listen to and understand information and ideas presented through spoken words and sentences.
3. Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, and mathematical operations).
4. Communicate information and ideas in speaking so others will understand.
5. Communicate information and ideas in writing so others will understand.

6. Choose the right mathematical methods or formulas to solve a problem.
7. Add, subtract, multiply, or divide quickly and correctly.

Tasks

Note: The following is a list of sample tasks typically performed by Pharmacists. Employees in this occupation will not necessarily perform all of the tasks listed.

1. Assay radiopharmaceuticals, verify rates of disintegration, and calculate the volume required to produce the desired results, to ensure proper dosages.
2. Assess the identity, strength and purity of medications.
3. Compound and dispense medications as prescribed by doctors and dentists, by calculating, weighing, measuring, and mixing ingredients, or oversee these activities.
4. Prepare sterile solutions and infusions for use in surgical procedures, emergency rooms, or patients' homes.
5. Review prescriptions to assure accuracy, to ascertain the needed ingredients, and to evaluate their suitability.
6. Advise customers on the selection of medication brands, medical equipment and health-care supplies.
7. Analyze prescribing trends to monitor patient compliance and to prevent excessive usage or harmful interactions.
8. Collaborate with other health care professionals to plan, monitor, review, and evaluate the quality and effectiveness of drugs and drug regimens, providing advice on drug applications and characteristics.
9. Compound radioactive substances and reagents to prepare radiopharmaceuticals, following radiopharmacy laboratory procedures.
10. Maintain records, such as pharmacy files, patient profiles, charge system files, inventories, control records for radioactive nuclei, and registries of poisons, narcotics, and controlled drugs.

INTERESTED?

Like people, occupations have traits or characteristics. These characteristics give important clues about the nature of the work and work environment, and give you an opportunity to match your own personal interests to a specific occupation. When you choose a job in an occupation that matches your own interests you have taken an important step in planning a successful and rewarding career.

The occupation of Pharmacist is considered **Investigative** frequently involve working with ideas, and requires an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.

Pharmacist is also a **Conventional** occupation and frequently involves following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.

This occupation is a **Realistic** occupation and frequently involves work activities that include practical, hands-on problems and solutions. Pharmacists often deal with real-world materials like wood, tools, and machinery.

This is also an **Enterprising** occupation and frequently involves starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.

LICENSURE, REGISTRATION, OR CERTIFICATION REQUIREMENTS

It is nationally recognized that pharmaceutical services is a health field career and is regulated to ensure competent delivery of health care services to citizens. Therefore professional standards and competencies including licensure are expected.

A license to practice pharmacy is required in all States, the District of Columbia, and U.S. territories. Each state has slightly different requirements for licensure, but once licensed in one state, a license may be reciprocated to other states, usually by applying for license transfer through the National Association of Boards of Pharmacy and by taking the state law examination. To obtain a license, one must graduate from a college of pharmacy accredited by the American Council on Pharmaceutical Education (ACPE), obtain practical experience hours within the U.S., and pass certain examinations. All States require passing the North American Pharmacist Licensure Exam (NAPLEX) administered by the National Association of Boards of Pharmacy (NABP). Most states also require passing an examination covering state and federal law related to the practice of pharmacy. Some states use NABP's Multistate Pharmacy Jurisprudence Exam (MPJE) as the required law exam, but Virginia has its own law examination. Graduates of foreign schools of pharmacy must obtain certification through NABP, which includes a review of the educational curriculum, passing of the Foreign Pharmacy Graduate Equivalency Examination, and passing of the Test of English as a Foreign Language and Test of Spoken English before they are eligible to apply to take NAPLEX.

The Virginia Board of Pharmacy provides requirements for licensure and continuing pharmacy education for individuals interested in a Virginia license. Licensing information for Pharmacists can be found on the Department of Health Professions web site at <http://www.dhp.state.va.us/>.

EDUCATIONAL, TRAINING, AND LEARNING OPPORTUNITIES

The Commonwealth of Virginia requires that applicants to a pharmacist license have at least a bachelor's degree from an accredited school of pharmacy.

The Department of Labor, Bureau of Statistics provides the following information on educational requirements:

Pharmacists dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. They advise physicians and other health practitioners on the selection, dosages, interactions, and side effects of medications. Pharmacists also monitor the health and progress of patients in response to drug therapy to ensure safe and effective use of medication. Pharmacists must understand the use, clinical effects, and composition of drugs, including their chemical, biological, and physical properties.

Pharmacy programs grant the degree of Doctor of Pharmacy (Pharm.D.), which requires at least 6 years of postsecondary study and the passing of the licensure examination of a State board of pharmacy. Courses offered at colleges of pharmacy are designed to teach students how to dispense prescriptions and communicate with patients and other health care providers about

drug information and patient care. Students also learn professional ethics. In addition to classroom study, students in the Pharm.D. program is provided in-depth exposure to and active participation in a variety of pharmacy practice settings under the supervision of licensed pharmacists.

The Pharm.D. degree has replaced the Bachelor of Pharmacy (B.Pharm.) degree, which is no longer offered to new students and will cease to be awarded after 2005.

The Pharm.D. is a 4-year program that requires at least 2 years of college study prior to admittance, although most applicants have 3 years prior to entering the program. Entry requirements usually include courses in mathematics and natural sciences, such as chemistry, biology, and physics, as well as courses in the humanities and social sciences. Approximately half of all colleges require the applicant to take the Pharmacy College Admissions Test (PCAT).

In 2003, the American Association of Colleges of Pharmacy (AACP) launched the Pharmacy College Application Service, known as PharmCAS, for students interested in applying to schools and colleges of pharmacy. This centralized service allows applicants to use a single Web-based application and one set of transcripts to apply to multiple Pharm.D. degree programs.

Both the master's and Ph.D. degrees are awarded after completion of a Pharm.D. degree. These degrees are designed for those who want more laboratory and research experience. Many master's and Ph.D. degree holders do research for a drug company or teach at a university. Other options for pharmacy graduates who are interested in further training include 1- or 2-year residency programs or fellowships. Pharmacy residencies are postgraduate training programs in pharmacy practice, and usually require the completion of a research study. Pharmacy fellowships are highly individualized programs designed to prepare participants to work in research laboratories. Some pharmacists who run their own pharmacy obtain a master's degree in business administration (MBA).

Areas of graduate study include pharmaceutics and pharmaceutical chemistry (physical and chemical properties of drugs and dosage forms), pharmacology (effects of drugs on the body), and pharmacy administration.

Prospective pharmacists should have scientific aptitude, good communication skills, and a desire to help others. They also must be conscientious and pay close attention to detail, because the decisions they make affect human lives.

In community pharmacies, pharmacists usually begin at the staff level. In independent pharmacies, after they gain experience and secure the necessary capital, some become owners or part owners of pharmacies. Pharmacists in chain drugstores may be promoted to pharmacy supervisor or manager at the store level, then to manager at the district or regional level, and later to an executive position within the chain's headquarters.

Hospital pharmacists may advance to supervisory or administrative positions. Pharmacists in the pharmaceutical industry may advance in marketing, sales, research, quality control, production, packaging, or other areas.

Pharmacists are also expected to have continuing pharmacy education. The American Council on Pharmaceutical Education (<http://www.acpe-accredit.org/>) is a good resource.

Educational Institutes in Virginia with a school of pharmacy are Shenandoah University (<http://www.su.edu/>) and Virginia Commonwealth University (<http://www.vcu.edu/>).

COMMONWEALTH COMPETENCIES

Competencies are a set of identified behaviors, knowledge, skills, and abilities that directly and positively impact the success of employees and the organization. Competencies can be observed and measured. When consistently demonstrated, competencies make employees particularly effective in their work. Competencies help lay out a road map to career success. You can use the Commonwealth Competencies to help improve your individual performance by adopting behaviors that make high performing employees successful in their jobs. In this way, you can use the Commonwealth Competencies for your further professional development.

The Commonwealth Competencies are:

1. Technical and Functional Expertise
2. Understanding the Business
3. Achieving Results
4. Serving the Customer
5. Teamwork
6. Interpersonal and Communication Skills
7. Leadership and Personal Effectiveness

The above competencies may be applied to employees throughout the Commonwealth of Virginia. They can be rank-ordered by agencies and hiring managers to represent the needs of a specific job. The rank ordering will change depending upon the occupation, an organization's priorities, the actual job requirements, and the supervisor's preferences.

Career success is both about what you do (applying your technical knowledge, skills, and ability) and how you do it (the consistent behaviors you demonstrate and choose to use) while interacting and communicating with others. Hopefully, by studying the Commonwealth competencies, identifying your developmental opportunities, and working to refine your own competence, you can take charge of your career!

For additional information about the **Commonwealth Competencies** go to: http://jobs.state.va.us/cc_planningctr.htm. For the competencies, we first list the competencies and then define each. Finally, we list competency indicators; to describe what successful performance looks like.

COMMONWEALTH CAREER PATH

Career opportunities in the Commonwealth are not limited to moving “up” to the next highest role and pay band, changing positions, or to becoming a supervisor. That’s because most roles describe a broad group of occupationally related positions that perform a range of work that requires increased knowledge and skills. For that reason, Commonwealth roles describe the career paths within the same or higher-level role for the same or different Career Group. The broad salary range and the Commonwealth’s pay practices provide flexibility in recognizing career development and advancement. ([Salary Structure](#))

For example: **Pharmacists**

PAY BANDS	PRACTITIONER ROLES
5	Pharmacist I
6	Pharmacist II

PAY BANDS	MANAGER ROLES
6	Pharmacy Manager

Sample Career Path

Pharmacist I

The Pharmacist I role provides a career track for pharmacists performing pharmaceutical services ranging from entry level to advanced level. Responsibilities include compounding, filling, and dispensing prescriptions and providing clinical expertise in pharmacy services and programs in accordance with state and federal laws. Some employees inspect pharmacy facilities and businesses or investigate complaints or alleged law violations.

Pharmacist II

The Pharmacist II role provides career tracks for pharmacists who are either experts or supervisors. The first career track is for pharmacists that continue to deliver pharmaceutical services for customers while assuming additional responsibilities such as procurement, budget, inventory control, and staff supervision. The second career track is for pharmacists that have an expertise in the treatment by medication of a specialized population and serve as a consultant for other health care professionals.

Pharmacy Manager

The Pharmacy Manager role provides career tracks for managers of pharmacy operations and is responsible for all procurement, storage, compounding, dispensing, and distribution of pharmaceuticals. Employees are also responsible for administrative management of the program, such as supervision and technical guidance of professional pharmacy staff, budget, planning, goals and objectives, quality assurance, and regulatory activities. Employees typically have agency-wide responsibility for procurement, storage, control, and distribution of pharmaceuticals to agency and local providers.

ADDITIONAL OCCUPATIONAL INFORMATION CAN BE FOUND AT:

O*NET (Occupational Information Network)

http://online.onetcenter.org/gen_search_page

Virginia Employment Commission

<http://www.alex.vec.state.va.us/>

Career One Stop

<http://www.careeronestop.org/>

Virginia Career Resource Network
<http://www.vacrn.net/>

Department of Health Professions
<http://www.dhp.state.va.us/>

Professional Organizations

American Association of Colleges of Pharmacy
<http://www.aacp.org/>

The American Council on Pharmaceutical Education
<http://www.acpe-accredit.org/>

Virginia Pharmacists Association
<http://www.su.edu/vpha/>

Virginia Society of Health-System Pharmacists
<http://www.vshp.org/>