

E guide | U.S. 2019

CAREER PATHWAYS IN PHARMACY:

Using Your International Education in the U.S.



TABLE OF CONTENTS

Introduction	1
Your Career Pathway in the United States.....	4
The Pharmacy Profession in the United States.....	6
Gaining Recognition for Your International Education.....	9
Educational Pathways in the Field of Pharmacy	11
Licensing and Certification Requirements in Pharmacy.....	20
Transferable Skills and Using Them in Related or Alternative Careers	25
SMART Goal Worksheet.....	33
Additional Resources in the Field of Pharmacy	34
Index of References.....	37

Our thanks to Oliver Mafla-Mills, PharmD, manager of education, Pharmacy Times Continuing Education, for providing expertise as a subject matter reviewer.



INTRODUCTION

Immigrating to the United States is an opportunity to use your international training to either advance in your field or pursue a new career that builds on your education and experience. Because pharmacy involves obtaining a license—a process that can be costly and time-consuming—it is especially important to fully consider your options.

The Pathways Guide at a Glance

If you have completed your education in another country and are now starting your career in the United States, you will need to understand to what extent you meet the academic requirements of your chosen career.

- The **Gaining Recognition for Your International Education** section (p. 9) will explain how to determine the U.S. equivalency of your foreign degree to help you explore career pathways in pharmacy and other fields.
- The **Educational Pathways in the Field of Pharmacy** section (p. 11) provides examples of careers in pharmacy that may match your qualifications.
- If you want to continue your pharmacy career in the United States, you must obtain a U.S. license to practice. See the **Licensing and Certification Requirements in Pharmacy** section (p. 20).
- Not all internationally trained pharmacists decide to pursue a pharmacy license in the United States, either because of the time and expense involved, or because they want to pursue a different career. See the **Transferable Skills and Using Them in Related or Alternative Careers** section (p. 25).

Let's get started!

Strategies for Success

Ask Lots of Questions

While you may have a strong idea of what your career will be in the United States based on the professional experience you already have, establishing yourself in a new country is a chance to reach new goals and possibilities. Analyzing your career options in the U.S. can be challenging, but by remaining flexible you can use the education and experience you already have to take steps to succeed in the U.S.

As you research your options, ask yourself:

- What are my short term and long term employment goals?
- What options are available to me based on my skills and qualifications?
- What are the steps and requirements in terms of time, costs, and additional training to pursue my goal?
- Whom can I talk to about my options?

Make a Plan

After you've explored some of the career options available to you in the United States, it is time to make decisions and come up with a plan. In the U.S., developing your career path requires a life-long commitment to learning, networking, and taking risks.

A successful plan includes realistic steps and time frames for completion. Your plan should also make it possible for you to work towards multiple goals at once and allow for some setbacks along the way. It will take patience to reach your goals and it is normal to change your mind or adapt to new circumstances as you move forward.

Think about the steps it will take to reach your goal. A clear goal-oriented plan may look something like this:

GOAL: Improve my language skills.

STEPS TO GOAL:

- Take an English language course that suits my needs.
- Meet with an English language conversation partner weekly.
- Learn terminology and professional language in my field.
- Read the newspaper every day.

*You can use the **SMART Goal Worksheet (p.33)** to guide you as you outline your plan.*

Take Initiative

While your **academic and professional credentials** are very important in your professional success, so are skills like your communication style, English language level, and ability to adapt to U.S. workplace culture. **Networking** with pharmaceutical professionals you know, meeting professionals in the field, joining a professional association, attending conferences, and volunteering in a pharmacy, doctor's office or hospital are great ways to practice the skills you will need to succeed in your job.

Finding meaningful work as an immigrant can take time and you may face challenging obstacles. Although many factors are out of your control, try to remain flexible, be persistent, and take initiative. As you explore this guide, you will find a number of helpful resources to support you.

GLOSSARY

Academic and professional credential: The degree, diploma, or license you receive when you complete a program, pass examinations, or meet a set of requirements.

Networking: Interacting with other people to exchange information and develop contacts, especially to further one's career.

YOUR CAREER PATHWAY IN THE UNITED STATES

Like many immigrants, you may initially struggle to gain entry into your professional field in the U.S. While you may have adequate knowledge or experience, the challenge often occurs in translating your skills and qualifications in a way that local employers will value and understand. You may also need further education and training, an understanding of your local labor market, and knowledge of how to navigate your options to choose a **career pathway**.



Your career pathway is made up of the educational and professional decisions that will open doors to new opportunities. Education and training are the building blocks of your career—with the skills you acquire, you can earn promotions and take on additional professional responsibilities.

To start thinking about your career options, you will need to understand the difference between regulated and non-regulated professions.

Understanding Regulated Professions

Each state decides which professions it will regulate and what level of formal education or training is required for entry into the field. In the United States, specific authorities or regulatory bodies are responsible for recognizing professional credentials required for state licensing. Since the time and cost associated with licensing varies by state, contact the relevant regulatory body before deciding to proceed with licensing. In this guide, careers usually requiring licensure are clearly marked—but again, this varies from state to state.

Understanding Non-Regulated Professions

Some occupations in the United States are either internally regulated by professional associations, or are entirely non-regulated. However, although less strict than **regulated professions**, certain standards of professional practice or **designations** might still be preferred by employers and professional associations in non-regulated professions. You can demonstrate that you meet these standards through a certification process linked to training programs provided by employers or community colleges.

GLOSSARY

Career pathway: A series of connected education and training programs that enable individuals to secure a job or advance in an industry or occupation.

Regulated professions: Professions that require a license or certification.

Designation: A title earned by an individual through a certification process.

Can I work as a pharmacist in the United States?

If you do not have a United States pharmaceutical license, you cannot work as a pharmacist in the U.S.

The pharmacy industry in the U.S. is highly regulated to protect public health and safety. That means that most pharmacy occupations in the U.S., including pharmacist, require either a license or **certification** to practice.

The pharmaceutical license you might have from your home country is not valid in the U.S. Internationally trained pharmacists need to meet the same requirements as U.S.-educated pharmacists.



In this guide, occupations that require a state certification or licensure process are clearly marked.

Many internationally trained professionals decide not to pursue employment in regulated professions due to the challenges of **relicensing**. The pharmacy field provides limited access to less-regulated employment as most pharmacy-related careers require licensure.

If you decide against relicensing as a pharmacist in the United States, you can still work in the field of pharmacy in a non-regulated occupation. Some related careers are discussed in the **Transferable Skills and Using Them in Related or Alternative Careers** section of this guide (p. 25).

GLOSSARY

Certification: A voluntary credentialing process by a non-governmental, private professional association.

Relicensing: Having to meet licensing requirements in the United States, even if you have a license from another country.

THE PHARMACY PROFESSION IN THE UNITED STATES

Pharmacy is a regulated healthcare field that focuses on researching, developing, tracking, and dispensing prescribed medication. Pharmacists also perform health and wellness screenings, and administer immunizations.

Depending on their level of training and specific role, pharmacists use technical, clinical, or managerial skills. They practice in a variety of settings, including pharmacies, hospitals, government facilities, research labs, and doctors' offices. Pharmacists can specialize in different areas of pharmacy, such as community, oncology, clinical, nuclear, and more. A pharmacist's area of specialization will determine whether they spend most of their time dispensing medications, compounding medications, reviewing prescription orders and medication history, or involved in direct patient care.

Working as a Pharmacist in the United States

A pharmacist's roles and responsibilities in the United States might be different than in other countries. Internationally trained pharmacists need to meet the same requirements as U.S.-educated pharmacists, so even if you have many years of experience, you must obtain a new license in the U.S.

In the U.S., each state/territory regulates the practice of pharmacy professionals and establishes its own set of requirements and **scope of practice** concerning professional licensure.

Internationally educated pharmacists can obtain licenses in the U.S., although it can be a costly and time-consuming process.

For example, to register as a pharmacist in New York in 2019, you would have to pay \$85 for a credential evaluation, a \$550 Foreign Pharmacy Graduate Examination Committee (FPGEC) application fee, \$650 to take the Foreign Pharmacy Graduate Examination Equivalency (FPGEE), \$205 to take the TOEFL iBT, a licensure application fee of \$339, \$575 to take the North American Pharmacist Licensure Exam (NAPLEX),¹ \$70 for an intern permit, and \$250 to take the Multi-State Pharmacy Jurisprudence Exam (MPJE), at a total cost of \$2,724.² However, if you're taking the Test of English as a Foreign Language (TOEFL) exam outside of the United States, the cost varies.³

The costs associated with relicensing change over time and vary depending on your state/territory, so check what the specifics are for your location.

GLOSSARY

Scope of practice: The procedures, actions, and processes a practitioner is permitted to undertake in keeping with the terms of their professional license.

It is recommended that internationally trained pharmacists contact the **National Association of Boards of Pharmacy (NABP)** for assistance in obtaining a license in the United States. The NABP can provide you with guidance as you navigate this process.

Since pharmacy license requirements vary by state/territory, consider these key points:

- Each state/territory in the U.S. is responsible for the licensure of pharmacists within that jurisdiction. State-specific licensure information can be found by visiting the **NABP's website**.
- All U.S. pharmacy boards require candidates to pass the North American Pharmacist Licensing Exam (NAPLEX), and 49 require the Multi-State Pharmacy Jurisprudence Exam (MPJE).
 - Arkansas, California, Idaho, Puerto Rico, and the Virgin Islands utilize alternative jurisprudence exams rather than the MPJE.
- Additionally, all U.S. pharmacy boards require internationally educated pharmacists to obtain Foreign Pharmacy Graduate Examination Committee (FPGEC) certification before applying for a license.

Roles and Responsibilities

The main designation for a licensed pharmacist in the United States is as a Registered Pharmacist (RPh).

In the U.S., pharmacists are responsible for:

- Filling out prescriptions prescribed by doctors and other health care practitioners.
- Explaining proper medication usage and dosage.
- Consulting with physicians and other health care practitioners on medication therapy.
- Identifying potential drug interactions for patients taking more than one medication.
- Administering flu shots and certain other vaccinations.
- Supervising pharmacy technicians.
- Depending on area of expertise, may also compound medications or assist in running clinical trials.

Understanding Job Titles

The roles and responsibilities of Registered Pharmacists are highly dependent on areas of expertise and experience. For example, when searching for employment as a Registered Pharmacist, you may see job postings with the following titles:

- Clinical Pharmacist
- Hospital Pharmacist
- Retail Pharmacist
- Research Pharmacist
- Supervising Pharmacist
- Pharmacist in Charge

You can read more about academic and professional credentials in the [Educational Pathways in the Field of Pharmacy](#) section of this guide (p. 11).

GAINING RECOGNITION FOR YOUR INTERNATIONAL EDUCATION

Your education is the foundation of your career. Although there may be challenges to using your foreign credentials in the United States, you do not have to start over. For an internationally trained professional, exploring career pathways begins with an understanding of the value of the education you received in your home country.

Obtaining a **foreign credential evaluation** is often the first step an immigrant takes to gain access to educational and employment opportunities in the U.S. A credential evaluation helps you gain recognition for your previous studies by considering your country's educational system, the status of the institution you attended, the content of the program, and any entry and graduation requirements.



A credential evaluation compares the education you received in your country to a similar degree or diploma in the United States and provides a **degree equivalency**.

In the United States, employers, licensing boards, and universities use credential evaluations to judge the quality and level of your academic achievements in comparison to U.S.-educated candidates.

- Universities, for example, use the information to make admissions decisions and to award transfer credit or advanced standing in a program.
- Employers and licensing boards refer to credential evaluations to evaluate whether or not you meet their academic requirements.

Unlike many other countries, the U.S. does not have a national education ministry to evaluate foreign degrees. As a result, some academic institutions and state licensing boards—and nearly all employers—rely on agencies like **World Education Services (WES)** to examine official documents. Others perform their own evaluations or use preferred agencies. **If you are a graduate of a foreign pharmacy school and applying for the required Foreign Pharmacy Graduate Examination Committee (FPGEC) certification before applying for a U.S. pharmacy license, then you MUST obtain your credential evaluation through Educational Credential Evaluators (ECE).**⁴

Before requesting a credential evaluation from any agency, contact the institution that needs the evaluation to understand their requirements. These institutions are responsible for the final recognition decision.

GLOSSARY

Foreign credential evaluation: An expert analysis of a foreign degree or diploma.

Degree equivalency: The extent to which a degree or diploma earned abroad compares to a similar U.S. credential.

If you are exploring a new career, it may be helpful to have an idea of the U.S. equivalency of your foreign credentials.

WES allows you to preview the U.S. equivalency of your highest completed degree by using the **WES free equivalency tool**.

Note: This preview does not replace a formal credential evaluation that may be needed for official purposes.

While an ECE evaluation is required for licensure, other evaluations may be accepted for different purposes, such as applying to U.S. pharmacy programs, applying for voluntary certifications, or pursuing a related or alternative career pathway. Always remember to check with the institution requesting the evaluation to ensure that a WES evaluation is recognized and accepted. If so, you can apply for a **WES Credential Evaluation.**



Watch the **WES Credential Evaluation & Recognition video to learn more about credential evaluation.**

Advanced Standing and Transfer Credit

If you are applying to an academic program, you may be eligible for advanced standing or transfer credit for previous education.

- **Advanced standing:** This means you may be allowed to skip prerequisites for admission into a course, or not repeat a required course, reducing the time to complete a degree.
- **Transfer credit:** This means that your previous education is counted toward the total number of credits required for the degree.

For internationally educated individuals, advanced standing and transfer credit is usually determined at the time of application through a foreign credential evaluation.

EDUCATIONAL PATHWAYS IN THE FIELD OF PHARMACY

Once you know the value of your foreign degree, you can use the information in this section to move forward in your career.

Pharmacy is a growing and rewarding field that offers many exciting career options. In this section you will find some examples of pharmacy careers that you may be qualified for, including their key roles and responsibilities and where further education may be helpful. You will also find information on how to meet the academic requirements for some popular pharmacy careers.

There are many ways to enter the pharmacy field. Some internationally trained pharmacists gain U.S. experience in entry-level professions as they pursue licensing and certification. Others begin by enrolling in degree programs to gain access to higher-level jobs.



HELPFUL TIPS

Research shows that immigrants who add a U.S. degree or certification to their international education and training are more likely to progress faster in their careers.



A career pathway is a series of “stackable credentials”—achievements that build on each other based on continuing education, specialization, and certification to allow you to move up a career ladder.

ASSOCIATE
DEGREE

BACHELOR'S
DEGREE

DOCTORATE
DEGREE

PHARMACY TECHNICIAN ASSOCIATE DEGREE

Pharmacy Technician

- Provide assistance to pharmacists in distributing prescribed medications to pharmacy customers.
- Employed in retail pharmacies, hospitals, long-term care pharmacies, prisons, veterinary pharmacies, or mail-order pharmacies.
- Alternative educational paths to becoming a pharmacy technician include earning a certificate or diploma from a vocational training program (this can also be achieved through experience and on-the-job training, depending on your location). Certificate/diploma programs tend to be shorter in duration than associate degree programs, generally requiring a year or less of study, and employers often have no preference.

- Certification is not required in order to find work as a pharmacy technician, but in order to call yourself a Certified Pharmacy Technician (CPhT), you must become certified through the Pharmacy Technician Certification Board (PTCB).

 **Forty-five states and Washington, DC regulate pharmacy technicians in terms of either registration, licensure, and/or certification. These regulations vary widely from state to state, so consult your state board of pharmacy for more information. Twenty-four of the 45 states and DC that do regulate technicians include the PTCB's Pharmacy Technician Certification Exam (PTCE) in their regulations.⁵**



While pharmacy technicians can find jobs with an associate degree or a certificate or diploma from a vocational training program,⁶ further advancement towards becoming a pharmacist requires more advanced degrees.



In order to become licensed as a Registered Pharmacist, you must earn a Doctor of Pharmacy (PharmD) degree; however, unlike with most doctoral programs, **you do not need to earn a bachelor's degree before applying to PharmD programs.** You only need to have completed two or preferably three years of related undergraduate coursework before applying to PharmD programs.

You can also apply to “early assurance” PharmD programs before you have started any undergraduate studies, with the understanding that upon acceptance, you will take two years to complete the required coursework before enrolling in the PharmD program.

Alternatively, you can apply to a PharmD program with only a high school diploma, as these programs combine both undergraduate course work and doctoral studies. See the Doctor of Pharmacy (PharmD) section below for more detailed information.

BACHELOR OF SCIENCE (BS) OR BACHELOR OF ARTS (BA)

IN BIOLOGY OR CHEMISTRY

Pharmaceutical Corporation Department Manager

- Develop department strategy and implementation.
- Manage employees to ensure the department reaches its goals and preferred outcomes.
- Certification not required.

Pharmaceutical Laboratory Analyst/Technician

- Complete physical testing of pharmaceutical materials and analyze samples to assess accuracy.
- Contain faulty results, isolating and verifying the cause.
- Make sure that laboratory work is in compliance with internal quality control standards as well as federal regulations.
- Certification not required.

Pharmaceutical Scientist

- Research, develop, test, and/or produce new drugs and therapies on behalf of a pharmaceutical company, academic institution, or regulator agency.
- Oversee the quality and safety of the drugs you develop.
- Improve upon the performance of or find new applications for existing medications.
- Certification not required.



While you can find work in the field of pharmacy with just a bachelor's degree, you will need to earn a Doctor of Pharmacy (PharmD) degree if you wish to become licensed and work as a pharmacist.

DOCTOR OF PHARMACY (PharmD)

You have several options for how to earn your Doctor of Pharmacy (PharmD) degree.

- Unlike with most doctoral programs, you do not need to earn a bachelor's degree before applying to PharmD programs.
- You only need to have completed two or preferably three years of related undergraduate coursework before applying to PharmD programs.
- You can also apply to “early assurance” PharmD programs before you have started any undergraduate studies, with the understanding that upon acceptance, you will take two years to complete the required coursework before enrolling in the PharmD program.
- Alternatively, you can apply to a combined undergraduate/doctoral PharmD program with only a high school diploma. These programs combine both undergraduate course work and doctoral studies into one program.⁷

Pharmacist

- Dispense medications to customers as prescribed by their physicians or other qualified medical professionals.
- Counsel customers about the proper dosage and best usage of their prescribed medication(s), as well as about potential side effects.
- Ensure that customers do not take medications that interact dangerously with one another or that are contraindicated by the customer's health condition(s) and history.
- Administer flu shots and certain other vaccinations.
- Oversee work of pharmacy technicians.
- Educate healthcare practitioners about appropriate medications and dosage for their patients.
- Review medications for duplicate therapy.
- Monitor lab values to guide dosing.



Licensure is required. Most states also require additional certification for pharmacists who administer vaccinations.⁸ The industry preferred path to such certification is the American Pharmacists Association's Pharmacy-Based Immunization Delivery certificate training program.⁹

Independent Pharmacy Owner and Pharmacist

- Maintain ownership of a profitable independently owned pharmacy.
- Hire, manage, and motivate pharmacy staff.
- Manage operations, payroll, and other administrative duties.
- Oversee work of pharmacy technicians.
- Ensure pharmacy meets legal requirements regarding taxes, business regulations, and FDA regulations.
- Dispense medications to customers as prescribed by their physicians or other qualified medical professionals.
- Counsel customers about the proper dosage and best usage of their prescribed medication(s), as well as about potential side effects.
- Ensure that customers do not take medications that interact dangerously with one another or that are contraindicated by the customer's health condition(s) and history.
- Administer flu shots and certain other vaccinations.
- Establish contracts and manage drug procurement.



Licensure is required. Most states also require additional certification for pharmacists who administer vaccinations.¹⁰ The industry preferred path to such certification is the American Pharmacists Association's Pharmacy-Based Immunization Delivery certificate training program.¹¹

Clinical Pharmacist

- Work mainly in hospitals and clinics, but scope of practice is expanding, and the settings in which clinical pharmacists practice are expanding as well.
- Less time spent dispensing prescriptions, instead focusing on providing direct patient care.
- May accompany physicians or other healthcare professionals on hospital rounds.
- Consult with doctors to recommend best medications for patients, and supervise the dosage and timing of medication delivery.
- Depending on location, may be called by different names: Advanced Practice Pharmacists (APh) in California,¹² Pharmacist Clinicians (PhC) in New Mexico,¹³ and Clinical Pharmacist Practitioners (CPP) in Montana¹⁴ and North Carolina.¹⁵
- Residency training may or may not be required to practice as a clinical pharmacist in a hospital setting; whether or not it is required, such post-graduate training can make you a more attractive candidate for employment.



Licensure is required. Most states also require additional certification for pharmacists who administer vaccinations.¹⁶ The industry preferred path to such certification is the American Pharmacists Association's Pharmacy-Based Immunization Delivery certificate training program.¹⁷

Academic Pharmacist

- Plan and teach courses in the pharmacy program of a university.
- Work closely with students to help them achieve their academic and career goals.
- Stay informed about changes and innovations in the field of pharmacy.
- Conduct academic research, possibly in a laboratory setting. Your research might focus on wellness, patient compliance, or other topics.
- Occasionally speak at pharmacy industry events.
- Write for science and/or educational publications. Some schools might require you to conduct peer-reviewed studies.
- Fellowship and/or residency training may or may not be required in order to work in academia; whether or not it is required, such post-graduate training can make you a more attractive candidate for employment.



Licensure is required to teach in pharmaceutical practice. Licensure may not be required to teach in pharmaceutical sciences.

Pharmacy Manager

- Oversee pharmacy department operations and administration.
- Evaluate employees, maintain their schedules, and perform additional human resources-related responsibilities.
- Maintain awareness of medicinal inventory.
- Ensure pharmaceutical services meet the highest standards, satisfy regulations, and achieve best practices.
- A Master of Business Administration (MBA) degree is not required, but may make you a more attractive candidate for employment.



Licensure is required.

There are many different types of pharmacists and pharmacy settings. This list is not exhaustive, but can give you an idea of the range of opportunities:

- **Clinical Pharmacist (PharmD)**
- **Community Pharmacist (PharmD)**
- **Hospital Pharmacist (PharmD)**
- **Mail Service Pharmacist (PharmD)**
- **Nuclear Pharmacist (PharmD)**
- **Prison Pharmacist (PharmD)**
- **Retail Chain Pharmacist (PharmD)**

After completing your PharmD degree, you have several options for post-graduate study:

- A residency
 - Residencies are typically one to two years and focus on clinical skills and patient care experiences.
 - Referred to as “PGY-1” and “PGY-2” programs, these residencies are most often pursued by those wishing to pursue a career in clinical pharmacy, although they are also appropriate for other pharmacy career paths.
- A fellowship
 - Traditional academic fellowships focus on research, and generally take two years to complete. Many of these fellowships require that participants have already completed a PGY-1 and even a PGY-2 residency program.
 - Pharmaceutical industry fellowships allow participants to gain experience in a variety of departments within a pharmaceutical company, and generally last for one year. These programs can usually be entered without having to complete any residency program first.¹⁸

Academic Requirements in Pharmacy

Consider these educational requirements for careers in the field of pharmacy, from entry-level to advanced professions.



As the first step in the application process, all U.S. State Boards of Pharmacy require pharmacists educated outside of the U.S. to have their credentials evaluated. Requirements differ by state/territory.

Requirements for Pharmacy Technician

- ✓ Requires no formal education beyond high school (or equivalent GED) and can be trained on-the-job in most states. However, obtaining a Pharmacy Technician certificate/diploma or associate degree could make you a more attractive candidate for employment.
- ✓ For admittance to certificate/diploma or associate degree programs, you must have the equivalent of a high school diploma.

✓ Programs are accredited through the **American Society of Health-System Pharmacists (ASHP)** and the **Pharmacy Technician Certification Board (PTCB)**.

✓ Certification is not required in order to find work as a pharmacy technician, but in order to call yourself a Certified Pharmacy Technician (CPhT), you must become certified through the **Pharmacy Technician Certification Board (PTCB)**. Forty-five states and Washington, DC regulate pharmacy technicians in terms of either registration, licensure, and/or certification. These regulations vary widely from state to state, so consult your **state board of pharmacy** for more information. Twenty-four of the 45 states and DC that do regulate technicians include the PTCB's Pharmacy Technician Certification Exam (PTCE) in their regulations.¹⁹

Requirements for



- **Pharmaceutical Corporation Department Manager**
- **Pharmaceutical Laboratory Analyst/Technician**
- **Pharmaceutical Scientist**

✓ Must complete a bachelor's degree in a relevant field (biology, chemistry, pharmacology).

✓ For admittance to bachelor's degree programs, you must have the equivalent of a high school diploma.

✓ Licensure not required.

Requirements for



- **Pharmacist**
- **Independent Pharmacy Owner and Pharmacist**
- **Clinical Pharmacist**
- **Academic Pharmacist**
- **Pharmacy Manager**

✓ Must complete a Doctor of Pharmacy (PharmD) degree from a program accredited by the **Accreditation Council for Pharmacy Education (ACPE)**.

✓ Unlike with most doctoral programs, you do NOT need to earn a bachelor's degree before applying to PharmD programs. You only need to have completed two or three years of related undergraduate coursework before applying to PharmD programs.

- For admittance to bachelor's degree programs (even if you only plan to attend two or three years of the program's studies), you must have the equivalent of a high school diploma.

- Contact the specific PharmD program(s) you are interested in to find out their exact requirements.
-

✓ You can also apply to “early assurance” PharmD programs before you have started any undergraduate studies, with the understanding that upon acceptance, you will take two years to complete the required coursework before enrolling in the PharmD program.

- For admittance to “early assurance” PharmD programs, you must have the equivalent of a high school diploma.
-

✓ Alternatively, you can apply to a combined undergraduate/doctoral PharmD program, which combines both undergraduate course work and doctoral studies into one program.

- For admittance to combined undergraduate/doctoral PharmD programs, you must have the equivalent of a high school diploma.²⁰
-

✓ If you are planning to become a pharmacy owner or manager, you can take business, accounting, and related courses as part of your undergraduate studies to better prepare you for your career. Earning a Master of Business Administration (MBA) degree in addition to your PharmD could also help advance your career. As of 2017, 68 schools offered combined PharmD/MBA programs.²¹

✓ Post-graduate fellowship and/or residency training may or may not be required to work in academia and clinical settings; whether or not it is required, such post-graduate training can make you a more attractive candidate for employment and can position you to earn a higher salary.



Earning another advanced degree in addition to your PharmD will give you more career flexibility throughout your professional life. Depending on your particular professional interests, you may wish to pursue a Master of Business Administration (MBA), Master of Public Health (MPH), Master of Science (MS), or Doctor of Philosophy (PhD) in a related discipline such as pharmacology. Each of these degrees would qualify you for additional careers in fields related to pharmacy, and many schools offer combined degree programs so that you can pursue both your PharmD and another advanced degree at the same time.²²

LICENSING AND CERTIFICATION REQUIREMENTS IN PHARMACY

This section of the guide provides general information on licensing and helpful resources to guide you as you move forward. Consult the **National Association of Boards of Pharmacy (NABP)** for up-to-date information.

Licensure for Pharmacy

If you want to practice as a Pharmacist in the United States, you must obtain a state issued license by passing two exams that all U.S. pharmacists are required to take, as well as two exams that are specific to internationally trained pharmacists. Some states/territories may also require additional exams, such as the compounding exam required by New York State.²³

- Licensing requirements for internationally trained pharmacists vary by state/territory. Each state/territory has a board of pharmacy that regulates licenses, and you can search **NABP's website for state-specific requirements** and links to each state/territory's board of pharmacy.
- In all 50 states plus the District of Columbia, Guam, and Puerto Rico, internationally trained pharmacists are required to earn the **Foreign Pharmacy Graduate Examination Committee (FPGEC) Certification** before applying for licensure from a state board of pharmacy.
 - After your international education and licensure and/or registration has been reviewed and approved, you must take the **Foreign Pharmacy Graduate Equivalency Examination (FPGEE)**. You may take a **pre-FPGEE** exam to help you prepare for the real exam.
 - You must also take the **Test of English as a Foreign Language (TOEFL iBT)** as a part of this process.



Keep in mind that if you earned your pharmacy degree before January 1, 2003, then you must have completed a minimum four-year pharmacy degree when you graduated. However, if you earned your pharmacy degree after January 1, 2003, then your degree must cover a five-year time span. Pre-pharmacy university coursework completed as a step towards admission into a university's pharmacy program may be counted towards this requirement.²⁴

- In most states/territories, you must successfully pass both the **North American Pharmacist Licensure Examination (NAPLEX)** and the **Multistate Pharmacy Jurisprudence Examination (MPJE)** in order to be eligible for licensure. You must take these exams AFTER you have obtained your Foreign Pharmacy Graduate Examination Committee (FPGEC) Certification.
 - You may take a **Pre-NAPLEX exam, RxPrep**, or APhA review to help you prepare for the real exam.

- As of 2019, only five U.S. boards of pharmacy do NOT require the MPJE, but rather an alternative jurisprudence exam: Arkansas, California, Idaho, Puerto Rico, and the U.S. Virgin Islands. If you are applying for licensure in one of these jurisdictions, contact their board of pharmacy to find out more about their specific requirements for licensure.²⁵
- Licensing takes time. Make sure to plan sufficient time for this process.

Interstate Licensing Agreements: Working in Other States

There are currently two models for pursuing interstate licensure:

- **Licensure Transfer**, which enables licensed pharmacists to transfer their existing pharmacist license to another state or territory. This is a reciprocity agreement: you do not lose your licensure in your original state when you transfer it to another, and some states even require that you maintain licensure in your “basis state” in order to maintain licensure in your new state.²⁶ The process is facilitated by NABP, but the local boards of pharmacy make the ultimate licensure decision.²⁷
 - Some states/territories may use other terms such as “reciprocity,” “endorsement,” and/or “assignment of score” in place of “licensure transfer,” which is the term used by NABP.²⁸
 - Some states place restrictions on whether or not they accept license transfers from Florida or California, and under what conditions. For more information on these and other restrictions and requirements, see NABP’s **State Restrictions for Licensure Transfer** chart.
 - Colorado, Maine, Michigan, Nebraska, Oregon, and Utah require that pharmacists seeking reciprocity in their jurisdictions pass their MPJE exam BEFORE submitting a Licensure Transfer application.²⁹
- **Score Transfer**, which allows you to become simultaneously licensed in your basis state as well as other states/territories of your choosing, as soon as you first pass the NAPLEX exam.
 - Consider this option especially if you live in an area within commuting distance to other states, as you may wish to seek employment in those locations, or if you have plans to move to a specific state/territory in the future.
 - This option also allows you to eventually drop your licensure in your original state at some point in the future, should you wish to do so. In many states, licensure transfer requires that you maintain licensure in your original basis state for the duration of your career, which can be an unnecessary cost if you do not intend to ever use it again.³⁰
 - If you decide to pursue licensure in multiple states/territories through score transfer, you will have to meet all licensure requirements for each state/territory in which you are seeking licensure. This includes passing each jurisdiction’s MPJE exam, as well as any other exams or requirements that jurisdiction demands. Before paying for score transfer, contact the board of pharmacy for each state/territory you are considering, to request more information on their specific requirements.³¹

Specialty Board Certification for Pharmacy

It is possible for licensed pharmacists to pursue specialty board certification in thirteen specialties:

- Ambulatory Care Pharmacy
- Cardiology Pharmacy
- Compounded Sterile Preparations Pharmacy
- Critical Care Pharmacy
- Geriatric Pharmacy
- Infectious Diseases Pharmacy
- Nuclear Pharmacy
- Nutrition Support Pharmacy
- Oncology Pharmacy
- Pediatric Pharmacy
- Pharmacotherapy
- Psychiatric Pharmacy
- Solid organ transplant pharmacy

The Board of Pharmacy Specialties establishes the standards for certification and writes and administers the exams. A specialty board certification is considered the highest standard in the pharmacy profession, and could make you a more attractive candidate for employment, as well as position you to earn a higher salary. More information on specialty board certification is available from the [Board of Pharmacy Specialties](#).

Independent Certifications for Pharmacy

Not to be confused with board certifications, which usually have a broader scope, independent certifications (sometimes referred to as “certificates”) are designed to bring participants up to speed on a specific topic.³² Most of them are open to a variety of healthcare professionals, not just pharmacists. Some of these certifications include a course of study, but many are just exams, and require you to seek out a course of study elsewhere, or to educate yourself on the topics outlined in the examination handbook. Depending on your place of work and your professional role there, you may find the topical education required to earn an independent certification to be essential for performing your duties; and you will also likely find that having one or more independent certifications on your resume makes you a more attractive candidate for employment, as well as positioning you to earn a higher salary.

Unlike board certifications, which are administered by a central organization, independent certifications are administered by a variety of organizations. The following list is a sampling of available certifications:

Certification	Provider
Certified Anticoagulation Care Provider (CACP)	National Certification Board for Anticoagulation Providers (NCBAP)
Certified Asthma Educator (AE-C)	National Asthma Educator Certification Board (NAECB)
Certified Diabetes Educator (CDE)	National Certification Board for Diabetes Educators (NCBDE)
HIV Specialist (AAHIVS), HIV Expert (AAHIVE), or HIV Pharmacist (AAHIVP)	The American Academy of HIV Medicine (AAHIVM)
Certified Nutrition Support Clinician (CNSC)	National Board of Nutrition Support Certification, Inc. (NBNSC)
Certified Associate in Healthcare Information and Management Systems (CAHIMS)	Healthcare Information and Management Systems Society (HIMSS)

Case Study: Hana



Hana Yoshida is a 25-year-old recent graduate of Osaka University, with a six-year degree in Pharmacy. There are so many pharmacists in Japan that Hana had trouble finding employment after graduation, and decided she might have better luck pursuing her career in the U.S.; a cousin who grew up in Honolulu offered to let her stay with their family, so Hana relocated there. Hana knew that obtaining licensure would be a lengthy process, so she decided to look for work as a pharmacy technician in the meantime—which worked out well for her as Hawaii has no licensure or certification requirement for pharmacy technicians, and her education made her an appealing candidate to employers. Once she found a job, Hana then focused on earning her Foreign Pharmacy Graduate Examination Committee (FPGEC) Certification and passing the FPGEE. Luckily, Hana’s English was already quite good, as many of her university courses were taught in English, so she passed the TOEFL, as well as the additional Test of Spoken English (TSE) required in the state of Hawaii. She now has to earn 1,500 hours of practical pharmacy experience in order to qualify for licensure in the state of Hawaii, and since none of her experience from Japan can count towards this requirement, Hana must apply for a Pharmacy Intern Permit so she can earn these hours through an internship. She still needs to pass the NAPLEX and MPJE, but Hana is fortunate to have employment to support herself through the licensing process.

TRANSFERABLE SKILLS AND USING THEM IN RELATED OR ALTERNATIVE CAREERS

Transferable Skills

Many immigrants find that they may not be qualified for the same job they had in their home country because job titles and requirements in their field are different in the United States. On account of a lengthy licensing process or a need for immediate employment, they may pursue other options that use their training and experience.



The key to finding alternative paths to a fulfilling career is to identify your *skills* (what you know how to do), *knowledge* (what you know), *competencies* (what you are good at), and *aptitudes* (what is easy for you to learn) that can be useful in a related or alternative career. These **transferable skills** are essential for career success and will enable you to adapt to changing circumstances, especially when your education and experience are from another country.

As you identify your transferable skills, it can be helpful to think about the difference between *hard skills* and *soft skills*. Employers place great value on *soft skills*, such as your ability to communicate, lead others, organize projects, and work effectively on a team—skills you probably already use on a daily basis. You can also apply your more technical *hard skills*, such as computer skills, foreign language fluency, and understanding of specialized vocabulary, to a completely different career.

Soft skills in particular depend on your ease and ability to communicate in English, which can be a challenge when it is not your first language. In order for your soft skills to benefit you in a U.S. job search, you must practice both your written and spoken English, and familiarize yourself with English terminology that is specific to your field. You may want to consider taking a course or obtaining self-study materials that will teach you the vocabulary specific to working in your industry. Some offerings for learning English for pharmacy are:

- Print:
 - Díaz-Gilbert, Miriam. **English for Pharmacy Writing and Oral Communication**. Baltimore: Lippincott Williams & Wilkins, 2009.
 - Bücheler, Michaela, et al. **English for the Pharmaceutical Industry (Oxford Business English: Express Series)**. Oxford University Press, 2015.

GLOSSARY

Transferable skills: Skills developed in one situation or occupation that can be transferred to another context.

- Online course:
 - The **English for Pharmacy: An Introduction** course is conducted in British English, but the vocabulary is much the same as that used in the U.S.
- Exam:
 - The **Occupational English Test (OET)** for Pharmacy is an English test specific to pharmacy, with listening, reading, writing, and speaking components. It is conducted in Australian English, but the vocabulary is much the same as that used in the U.S. The test itself can only be taken in New York (within the U.S.), but test preparation materials provided by the company can be useful study aids to help you learn and practice pharmacy English whether or not you plan to take the test itself.

Are you including your transferable skills on your résumé?

Pharmacy professionals typically have the following skills and expertise that could be applied to a different career:

- Monitoring, assessing, and evaluating complex situations.
- Strong people skills - both within your team of colleagues and with patients/customers.
- Collaborating with other professionals on an interdisciplinary team.
- Management skills: managing tasks, inventory, and sometimes employees.
- Keeping meticulous records.
- The ability to commit important information to memory.
- Managing crises.

Related and Alternative Careers in Pharmacy

Why consider a different career?

Finding employment in a related or alternative job can:

- Open doors to new career possibilities.
- Provide income while you work toward your license.
- Grow your **professional network** in the United States.
- Help you gain U.S. work experience.

GLOSSARY

Professional network: Acquaintances with whom you stay in contact based on professional rather than personal connections.

If you have spent many years committed to an occupation, it is understandable to feel that your career—just like your relationships, hobbies, and beliefs—is a key part of your identity. It is not unusual to experience a sense of identity loss or failure at having to explore a **new career path**. In the United States, however, going back to school to switch careers is quite common.

Some of the careers described in this section require additional education or training. It is possible to find options that take only a few months, as well as more in-depth options that can take a year or more.

Examples of Related Careers

Allied health careers support the fields of pharmacy, nursing, medicine, and dentistry in the prevention, diagnosis, and treatment of patients. There are dozens of occupations that you can explore in this category that include both technical and clinical roles. Some examples are occupational therapist, nutritionist, medical sonographer, and genetic counselor. While a license or certification is usually required for these professions, the cost and length of training may be less than that needed to relicense as a pharmacist.

Some healthcare careers do not require you to be licensed or certified. These are ideal options for internationally-licensed pharmacists who want to continue working in the field of pharmacy but do not want to undergo the relicensing process, or who want to work while relicensing in the United States.

Pharmaceutical Quality Control Analyst

- Test finished pharmaceutical products to ensure they meet internal standards as well as government regulations.
- Document findings and compile into reports for relevant departments.
- Bachelor's degree in related field required.
- Certification not always required, but many employers prefer to hire candidates with Current Good Manufacturing Practices (CGMP) certification. These certifications are offered by several organizations, and may include work experience requirements:
 - **Pharmaceutical GMP Professional Certification (CPGP)** from the American Society for Quality.
 - **Current Good Manufacturing Practices (cGMP) Certified Professional (GMPCP)** from BioPharma Institute.
 - **Current Good Manufacturing Practices (cGMP) Certified Professional** from The Center for Professional Innovation & Education (CfPIE).
 - **Excipient cGMP Certification** from NSF Health Sciences Certification, which focuses on excipients, or the inactive substances in medications.

Pharmaceutical Sales Representative

- Be an expert on your company's pharmaceutical pipeline and products, as well as on competing products from other companies.
 - Build relationships with local physicians.
 - Provide physicians with information about pharmaceutical company's products.
 - Persuade physicians to prescribe your company's products to their patients.
 - Bachelor's degree required, and a master's degree may make you a more attractive candidate for employment.
 - Certification not required, but **CNPR Certification** from the National Association of Pharmaceutical Sales Representatives may make you a more attractive candidate for employment.

Pharmaceutical Project Manager

- Oversee all stages of a project in a pharmaceutical company, from beginning to end.
- Work with colleagues from different departments, from engineering to manufacturing to marketing.
- Assign personnel to the project, and allocate tasks and manage interdepartmental cooperation among the team.
- Manage deadlines, budget, and any challenges that arise on each project.
- Bachelor's degree required, and a master's degree—either in a related scientific field and/or a Master of Business Administration (MBA)—may make you a more attractive candidate for employment.
- Certification not required, but may make you a more attractive candidate for employment. Some of the more desirable project management certifications are:
 - **Project Management Professional (PMP)** from the Project Management Institute.
 - **Lean** and/or **Six Sigma**, offered alone or in combination by a variety of organizations and vendors.

Case Study: Ayodeji



Ayodeji Ojo is a 42-year-old pharmacist with a degree from the University of Ibadan. He practiced as a pharmacist in Nigeria for 11 years, the last six of which he owned and operated his own community pharmacy with his wife in her home city of Maiduguri. Sectarian strife came to a head in 2012, and the couple fled to Houston, where Ayodeji's uncle had been living for some time. Ayodeji hoped to find work as a pharmacist, but found the U.S. licensure process overwhelming. He contacted the Nigerian Association of Pharmacists and Pharmaceutical Scientists in the Americas for guidance and was able to arrange some informational interviews with colleagues. Through these discussions, Ayodeji realized that what he had loved most about his job in Nigeria was running his business: he was good at setting budgets and managing his team of employees, and he took pleasure in finding ways to maximize his pharmacy's efficiency. So Ayodeji decided to pursue a combined Lean Six Sigma certification, and through his networking connections at the NAPPS, was hired as a Pharmaceutical Project Manager. Now that he is settled in his new career, Ayodeji has decided to pursue an MBA to make himself eligible for a higher salary and to expand his professional opportunities.

Research and Development (R & D) Manager

- Supervise teams that are working on the development of new drugs.
- Direct your team's research and set goals.
- Compile and organize data from your team's research for upper management.
- Bachelor's degree required, and a master's degree in biochemistry or a related scientific field may make you a more attractive candidate for employment.
- Certification not required, but may make you a more attractive candidate for employment. Some of the more desirable management certifications are:
 - **Project Management Professional (PMP)** from the Project Management Institute.
 - **Lean** and/or **Six Sigma**, offered alone or in combination by a variety of organizations and vendors.

Pharmacy Informatics Specialist

- Requires deep understanding of both pharmacy and IT, particularly software.
- May specialize in either operational or clinical informatics.
 - Operational informatics focuses on designing, creating, and maintaining the technical systems used in pharmacy, such as those used for electronic prescribing, prescription dispensing, prescriber order-entry, and packaging.
 - Clinical informatics focuses on designing, creating, and interpreting clinical reports, and serving as a point of contact between clinical and IT initiatives. Clinical informatics specialists usually work in hospitals.
- PharmD degree and licensure usually required.

Examples of Alternative Careers

Alternative careers are careers outside of the field of pharmacy in which you can use the skills and knowledge you gained as a pharmacist.

Consider these types of careers if you are interested in exploring a different career path.

Community Healthcare Worker

- Serve as a trusted member of the community who acts as a liaison between community and social/health services.
- Responsibilities might include community education, helping members of the community access healthcare and social services and resources, facilitating communication between community members and healthcare and social services, educating local healthcare and social services providers on culturally appropriate interactions with the community, and providing informal healthcare counseling and social support to community members.
- Some employers require only a high school diploma, while others require a college degree.
- Certification not required. On-the-job training often provided.

Homecare Assistant/Aide

- Assist people who are ill or disabled with activities of daily living.
- Administer medications and perform routine examinations.
- Certification not required, although many employers prefer hiring candidates with cardiopulmonary resuscitation (CPR) certification.

Medical and Health Services Managers

- Deliver an efficient and robust quality of healthcare services.
- Hire, coach, and oversee employees.
- Make certain that your workplace is compliant with laws and regulatory codes.

- Direct and maintain records of the facility's services, such as the number of nurses on staff during a particular rotation.
- Bachelor's degree required, although many employers prefer to hire candidates with master's degrees in areas such as health administration, health management, or business administration.
- Certification not required.

Medical Records and Health Information Technicians

- Electronically sort and maintain data on patients' health, while keeping it both accessible and secure.
- Take note of patient outcomes for quality assurance.
- Use classification software and assign appropriate clinical codes to allow medical data to be sorted and searched for insurance reimbursement and statistical analysis.
- Post-secondary certificate or associate degree in health information technology required.
- Certification not required, but many employers prefer to hire candidates with certifications such as the **Registered Health Information Technician (RHIT)** credential.
- Some states and hospitals require that cancer registrars hold the **Certified Tumor Registrar (CTR)** credential.

Medical Transcriptionist

- Take physicians' audio files and produce written reports from them.
- Review and revise medical documents produced with the aid of vocal recognition technology.
- Create easily readable text from medical jargon and abbreviations.
- Post-secondary certificate or associate degree in medical transcription required.
- Certification not required, but many employers prefer to hire candidates with certifications such as the **Registered Healthcare Documentation Specialist (RHDS)** credential.

Medical Writer

- Read highly technical medical studies and research, parsing through data and taking detailed notes.
- Using your notes, write articles, reports, and documents that convey the information in a readable, easily understood manner.
- Write a variety of materials for different audiences and purposes, such as news or magazine articles, marketing copy, or resources for patient education or sales training.
- Bachelor's degree required. Many medical writers have graduate level degrees in related fields such as medicine and pharmacy.
- Certification not required, but a **Medical Writer Certified (MWC)** credential from the **American Medical Writers Association** may make you a more attractive candidate for employment.

Regulatory Specialist

- Ensure that your organization's products meet all regulatory requirements.
- Monitor products from the development and testing stages through the approval process, as well as ongoing monitoring once it becomes available for public consumption.
- Stay informed of all changes in federal regulations, as well as international regulations if your products are marketed abroad.
- Bachelor's degree required, and many regulatory specialists have graduate level degrees in related fields such as medicine and pharmacy.
- Certification not required, but a **Regulatory Affairs Certification (RAC)** from the **Regulatory Affairs Professionals Society (RAPS)** may make you a more attractive candidate for employment.

Toxicologist

- Become an expert regarding drug, chemical, and other substances' effects on living beings.
- Construct and execute experiments to discover potential harmful side-effects, the dosage at which these effects occur, and acceptable exposure amounts with an emphasis on safety.
- Produce reports with recommendations for businesses, hospitals, regulatory agencies, and more, contextualizing your findings and providing risk analyses to guarantee safest product implementation.
- Bachelor's degree required, and many toxicologists have graduate level degrees in a related field.
- Certification not required, but an **American Board of Applied Toxicology (ABAT)** diplomate credential may make you a more attractive candidate for employment.

SMART GOAL WORKSHEET

Now that you have reviewed this guide, the next step is to think about your career plan. We recommend using Specific, Measurable, Achievable, Relevant, and Time-Based (SMART) goals. You can use this SMART goal template to help you identify your next steps.

GOAL	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BASED
What do you want to achieve?	Who? What? Why? Where? When?	How much? How often? How many?	Can it be done?	Is it relevant to your ultimate vision?	When?

ADDITIONAL RESOURCES IN THE FIELD OF PHARMACY

You can explore the following helpful resources for more information on education, employment, licensing, and financial assistance to pursue a career in the field of pharmacy.

Educational Resources

- **Pharmacy Times** provides information on current events in pharmacy, as well as practical information for pharmacy students, technicians, and pharmacists.
- The American Association of Colleges of Pharmacy (AACCP) lists **the steps internationally trained pharmacists must take** in order to practice pharmacy in the United States.
- The Accreditation Council for Pharmacy Education (ACPE) lists **pharmacy education programs by state**.
- The American College of Clinical Pharmacy (ACCP) maintains a **directory** of pharmacy residencies, fellowships, and graduate programs.
- The American Society of Health-System Pharmacists (ASHP) maintains a **Student Residency Guide webpage** and **residency search tool**.
- If you only have a bachelor's degree in pharmacy, Western University in California has an **International Post-Baccalaureate PharmD (IPBP) program** you can complete in three years that will grant you a Doctor of Pharmacy (PharmD) degree. This program specifically caters to domestic and internationally trained pharmacists.
- The University of Colorado-Denver offers a PharmD degree through its **International-Trained PharmD (ITPD) Program**. The curriculum is designed specifically for internationally schooled pharmacists. The program is inter-professional, integrating the dental, medical, nursing, pharmacy, and public health disciplines, granting students a holistic approach to pharmacy.
- If you want to gain additional pharmaceutical knowledge beyond your schooling, the **American College of Clinical Pharmacy (ACCP)** offers many educational resources for online purchase.
- The University of California-San Diego (UCSD) offers a free **Pharmacogenomics Education Program (PharmGenEd)**. After you register, you will have access to lists of reputable publications, references, textbooks, links to other human genome-related websites, and more.

Career/Employment Resources

- The **American College of Clinical Pharmacy's career development resources page** provides a resume review service, a thorough list of residencies and fellowship programs, interview tips, and more.

- The **American Pharmacist Association (APhA) website** provides links to career opportunities and a career pathway evaluation program.
- A paid membership to the **American Society of Health-System Pharmacists (ASHP)** provides you with access to career resources and the organization's entire website.
- **ExploreHealthCareers** offers comprehensive information about a wide variety of health careers.
- **ResumeOK** provides free pharmacist resume samples, as well as formatting and template guides.
- **The Accreditation Council for Pharmacy Education (ACPE)** offers comprehensive guidance on professional development and is a resource often used as a model by pharmacy schools and boards of education working with pharmacy students and/or pharmacists.
- **iHirePharmacy** is a website devoted to pharmacy job listings. Includes career advice and resume writing resources.
- **The Welcome Back Initiative** helps internationally trained health professionals re-enter their careers in the United States. There are 10 Welcome Back Centers across the U.S.

Licensing Resources

- The **National Association of Boards of Pharmacy's (NABP)** website provides webpages devoted to:
 - **Foreign Pharmacy Graduate Examination Committee (FPGEC) certification**
 - The online **FPGEC Candidate Application Bulletin**, which includes information on the FPGEE.
 - The **Foreign Pharmacy Graduate Equivalency Examination (FPGEE)**
 - The **Pre-FPGEE**
 - The **North American Pharmacist Licensure Examination (NAPLEX)**
 - The **Pre-NAPLEX**
 - The **NAPLEX/MPJE Candidate Application Bulletin**
 - **NAPLEX Score Transfer**
 - The **Multistate Pharmacy Jurisprudence Examination (MPJE)**
 - **Licensure Transfer**
 - A **Frequently Asked Questions (FAQs)** page with sections devoted to FPGEC, FPGEE, Pre-GPGEC, Pre-FPGEE, NAPLEX, MPJE, and Licensure Transfer.
 - A page that provides **direct links to each state's Board of Pharmacy**.
- Candidates for FPGEC certification must take the internet based Test of English as a Foreign Language (**TOEFL iBT**).

- **Pharmacy technician registration and/or certification requirements** by state.
- **Upwardly Global’s Professional Licensing Guides** provide licensing information for Calif., Ill., Mich., N.H., and N.Y.
- The **Board of Pharmacy Specialties** website contains all the information you need to know regarding specialty board certification.
- The **American Society of Health-System Pharmacists** offers resources to support pharmacists preparing for a variety of board specialty exams.

Financial Resources

- The Office of the U.S. Department of Education provides **resources for eligible non-U.S. citizens**.
- The Maryland Department of Labor, Licensing, and Regulation maintains a list of **Education and Training Scholarships for New Americans**. Some are specific to Maryland residents, but many are open to applicants living anywhere in the U.S.

INDEX OF REFERENCES

The Pharmacy Profession in the United States

1. <https://www.tldrpharmacy.com/content/immediate-post-grad-expenses>
2. www.op.nysed.gov/prof/pharm/pharmlic.htm
3. <https://www.ets.org/bin/getprogram.cgi?test=toefl>

Gaining Recognition for Your International Education

4. <https://nabp.pharmacy/programs/fpgec/>

Educational Pathways in the Field of Pharmacy

5. <https://www.ptcb.org/resources/cpht-toolkit/state-regulations#.XG2CeLhOn7M>
6. <https://www.medicaltechnologyschools.com/pharmacy-technician/how-to-become-pharmacy-tech>
7. <https://www.aacp.org/resource/frequently-asked-questions-faq-about-pharmacy-admissions>
8. <https://www.bls.gov/ooh/healthcare/pharmacists.htm#tab-4>
9. <https://www.pharmacist.com/pharmacy-based-immunization-delivery>
10. <https://www.bls.gov/ooh/healthcare/pharmacists.htm#tab-4>
11. <https://www.pharmacist.com/pharmacy-based-immunization-delivery>
12. <http://appharmacist.com/faqs/>
13. <https://www.ashpintersections.org/2015/08/new-mexico-clinic-pharmacists-wield-extensive-prescribing-privileges/>
14. https://leg.mt.gov/bills/mca/title_0370/chapter_0070/part_0030/section_0060/0370-0070-0030-0060.html
15. http://www.ncbop.org/pharmacists_cpp.htm
16. <https://www.bls.gov/ooh/healthcare/pharmacists.htm#tab-4>
17. <https://www.pharmacist.com/pharmacy-based-immunization-delivery>
18. https://www.pharmacytimes.com/publications/career/2015/pharmacycareers_february2015/fellowships-101
19. <https://www.ptcb.org/resources/cpht-toolkit/state-regulations#.XG2CeLhOn7M>

20. <https://www.aacp.org/resource/frequently-asked-questions-faq-about-pharmacy-admissions>
21. <https://www.pharmacytimes.com/publications/career/2017/careerssummer2017/continuing-your-formal-education-after-your-pharmacy-degree>
22. <https://www.pharmacytimes.com/publications/career/2017/careerssummer2017/continuing-your-formal-education-after-your-pharmacy-degree>

Licensing and Certification Requirements in Pharmacy

23. <http://www.op.nysed.gov/prof/pharm/pharmlic.htm>
24. <https://nabp.pharmacy/programs/fpgec/>
25. <https://nabp.pharmacy/help/which-states-require-the-mpje/>
26. <https://nabp.pharmacy/programs/licensure-transfer/>
27. <https://nabp.pharmacy/programs/licensure-transfer/>
28. <https://nabp.pharmacy/help/what-terms-are-used-for-licensure-transfer/>
29. <https://nabp.pharmacy/programs/licensure-transfer/>
30. <https://www.pharmacytimes.com/contributor/mel-seabright-pharmd-mba/2015/07/advice-for-recent-pharmacy-school-graduates>
31. <https://nabp.pharmacy/wp-content/uploads/2019/03/NAPLEX-MPJE-Bulletin-October-2019.pdf>
32. <https://www.accp.com/careers/boardFAQ.aspx>



Our Expertise. Your Success.

 wes.org/partners/global-talent-bridge

 gtb@wes.org

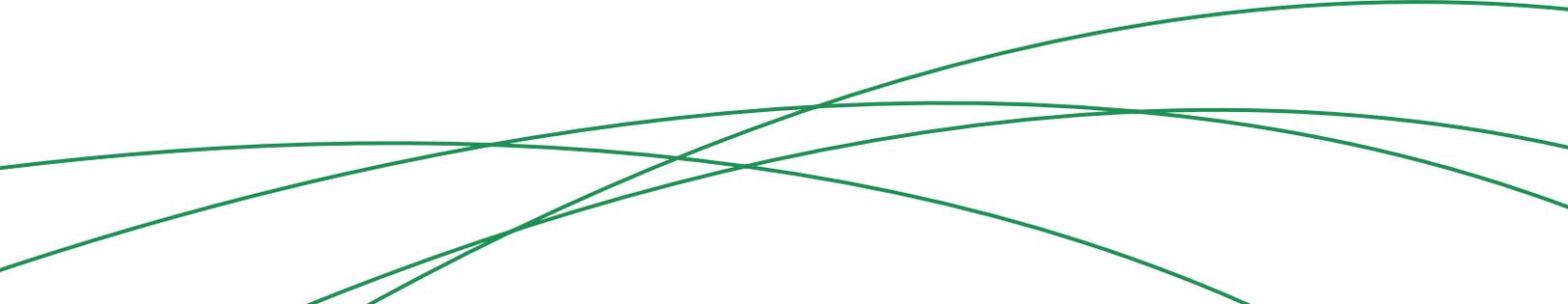
WES Global Talent Bridge is a program dedicated to helping skilled immigrants fully utilize their talents and education in the United States. Global Talent Bridge joins with institutional partners and community organizations to help skilled immigrants leverage their training, achieve their professional goals, and contribute their talents to their full potential.

Global Talent Bridge provides technical assistance, staff training and specialized resources to community organizations, adult education programs, government agencies and academic institutions so they can better support, advise and integrate highly-qualified immigrants. It also conducts research and policy advocacy efforts to advance opportunities for skilled immigrants at the local, state and national level.

Find us on **Facebook**, **LinkedIn**, and **Twitter**.

Tweet us with any questions and comments online by using #WESGlobalTalent.

Click here to subscribe to our newsletter.

Decorative graphic consisting of several overlapping, curved green lines at the bottom of the page.