Department of Pharmaceutical Care

Pharmacy Technician Training
Program Manual

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Department of Pharmaceutical Care Mission

The mission of the Department of Pharmaceutical Care is to improve medication use by actively participating in patient care, education, and research relating to all aspects of pharmaceutical care.

UIHC Pharmacy Technician Training Program Mission

Prepare students for a pharmacy technician career and national certification through interactive and hands-on training.

UIHC Pharmacy Technician Training Program Overview

The University of Iowa Health Care Pharmacy Technician Training Program is an unpaid program designed to prepare students for a career as a pharmacy technician through didactic, simulation, and experiential training. Upon completion of the training program, students are eligible to sit for the national certification exam administered through the Pharmacy Technician Certification Board (PTCB). This certification is a requirement to work as a pharmacy technician in the State of Iowa.

Under general pharmacist supervision, pharmacy technician coordinates and performs the technical activities related to patient medications. Pharmacy technician can perform many tasks including, but not limited to:
- Filling and dispensing medications
- Delivering medications
- Compounding sterile and nonsterile products in hospital pharmacy settings

UIHC Pharmacy Technician Program Length and Distribution of Hours

Standards for an **Entry Level Program** to attain **ASHP (American Society of Health-System Pharmacists) Accreditation** are as follows:

- The training schedule consists of a minimum of **400 hours** total, of health-related education and training, extending over a period of at least 8 weeks.
- The period of training includes the following educational modalities: Didactic; Simulated; and Experiential.
- The minimum number of hours for each component is as follows: Didactic- 120 hours; Simulated- 50 hours; Experiential- 130 hours (total of 300 hours); plus 100 additional hours, to obtain the minimum of 400 hours of training total. The additional 100 hours may be allocated to the three educational modalities listed above, based on the discretion of the program director and faculty.
- Programs document their method of time calculation and the attribution of hours of academic instruction within all instructional components for the program.

Following the above outlined **ASHP Accreditation** minimum standards for an **Entry Level Program,** the UIHC Pharmacy Technician Training Program length and hours are distributed as follows:

- The training schedule consists of approximately **420 hours** total, of health-related education and training, extending over a period of approximately 12 to 15 weeks.
- The period of training includes the following educational modalities: Didactic; Simulated; and Experiential.
- The number of hours for each component is as follows: Didactic- approximately 130 hours; Simulated- approximately 66 hours; Experiential- approximately 224 hours. The bulk of the discretionary hours is allocated to Experiential experiences at the various pharmacy sites within UIHC.
- UIHC Pharmacy Technician Training Program documents their method of time calculation and the attribution of hours of academic instruction primarily through **PTU (Pharmacy Technician University)**.

UIHC Pharmacy Technician Training Program – Project Expenses

Non-refundable Seat Fee Due prior to first day of class	$100.00
Program Fee* Partial fee (50%) due at 30 days Remaining (50%) due at 60 days	$400.00
Parking (if required)	$90.00

Tuition assistance is not available. Program fees must be paid at noted timelines and are subject to change. Additional payment plans available upon request. Program fee is non-refunded.

Program Covered Expenses as Part of Program Fee
- Access to online materials through PTU
- Uniform(s)
- Iowa Board of Pharmacy Trainee Registration Fee
- Iowa Board of Pharmacy Certified Technician Registration Fee
- PTCB Certification Exam (one-time)

Purpose of Training, Prospects for Employment and Salary Expectations

Purpose of Training
The Department of Pharmaceutical Care at University of Iowa Health Care helps students train as pharmacy technicians and become certified. This program is designed to train pharmacy technicians to better support pharmacists, to improve patient safety, reduce medication errors, and improve efficiency in the pharmacy, as well as helping pharmacies meet regulatory and training requirements. Program graduates are well trained to meet high quality performance standards and are prepared to pass state and national certification exams. Important topics covered in *the University of Iowa Health Care* curriculum include: medication error prevention and safety, calculations, pharmacology, community pharmacy practice, institutional pharmacy practice, federal law, and state specific pharmacy law.
Prospects for Employment and Salary Expectations

Employment of pharmacy technicians is expected to grow by 6 percent from 2022 to 2032, much faster than the average for all occupations. Two major factors are driving this rapid growth rate. As a result of advances in pharmaceutical research, more prescription medications are being developed and in turn are being used to treat medical conditions. The second major factor is the growth in the size of the elderly population. In general, older people use more prescription drugs than younger people.
Job prospects should be excellent for pharmacy technicians, particularly those with formal training and those with experience in retail settings.

In cases where training is provided by a pharmacy chain or employer, students will often already be hired to fill the role of pharmacy technician, and *University of Iowa Health Care* will be the means by which they are trained to fulfill the role.

Summary Facts: Pharmacy Technician	
2022 Median Pay	$37,790 per year $18.17 per hour
Typical Entry-Level Education	High school diploma or equivalent
Work Experience in a Related Occupation	None
On-the-job Training	Moderate-term on-the-job training
Number of Jobs, 2022	459,600
Job Outlook, 2022-32	6% (Faster than average)
Employment Change, 2022-32	25,900

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Pharmacy Technicians, on the Internet at http://www.bls.gov/ooh/healthcare/pharmacy-technicians.htm (visited September 6, 2023).

UIHC Pharmacy Technician Training Program Admissions Policy

It is our goal for each student to succeed throughout the training program and into their career. To ensure the success of our students, they must meet the following minimum qualifications to enroll in the program:

- Possess a high school diploma or the equivalent.
- Have English language and math proficiency sufficient to fulfill the requirements of the pharmacy technician job responsibilities, demonstrated by passing the reading comprehension and math assessments in **three attempts or less**. A minimum score of 70% is required for each assessment.
- Disclose any history of criminal and State Board of Pharmacy registration actions which may affect the student's ability to pursue national pharmacy technician certification.

- Pass a criminal record background check.
- Comply with immunization requirements of experiential sites and employers.
- Meet state-specific requirements as regulated by the State Board of Pharmacy which includes registration as Pharmacy Technician, Trainee with Iowa Board of Pharmacy.
- Meet employer-specific requirements, if applicable.
- Agree to follow Student Code of Conduct.

Student Code of Conduct

Students agree to adhere to the following Code of Conduct during didactic, simulation and experiential portions of the course:

- Demonstrate academic and personal integrity.
- Treat all people with respect and dignity. This includes instructors, fellow students, and both patients and employees encountered during experiential rotations.
- Respect the rights and property of others.
- Adhere to all policies and procedures of the course, as well as all local, state and federal laws.
- During on site learning (simulations and experiential rotations) the student shall:
    - Follow a zero-tolerance policy for use of alcohol or any substance that impairs one's judgement and ability to safely perform duties.
    - Adhere to all rules and procedures of the experiential site, including any safety protocols in place.
    - Respect the time of instructors and preceptors by communicating any anticipated tardiness or absences and scheduling any necessary make up time.

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*Note: Any applicant needing special accommodations in accordance with the Americans with Disabilities Act, please contact your Program Director.

The Program Director in conjunction with the Program Coordinator has final approval of applicants' qualifications for acceptance into the training program.

Attendance policy: if a student must miss time at an experiential site it is the student's responsibility to schedule make-up time with the site.

UIHC Pharmacy Technician Training Program Technology Requirements

All students must have access to a computer and internet with capabilities to view and hear video demonstrations.

It is our goal for each applicant to meet or exceed the minimum technology requirements. To ensure students can do so easily and affordably, we keep our web technology requirements low and provide multiple solutions in areas where users have differing technology constraints. The minimum technology requirements to complete the program are readily available on the TRC website and is listed below. http://info.therapeuticresearch.com/ptuhelp?#SysReq.

Users accessing content need to have computer systems that are able to access the internet and play multimedia files (video/html5). Headphones or speakers are needed for audio, or closed captioning can be used if speakers are not available.

	Minimum	Recommended
CPU	2 GHZ	2 GHZ or higher
Memory	4 GB	4 GB or higher
Operating System	Windows 7	Windows 10 or higher
Browser	Chrome, Firefox, IE 11	Chrome, Microsoft Edge
Network Bandwidth	256 kbps	2 Mbps down / 3 Mbps up
PDF Viewer, such as Adobe Reader	PDF Viewer	PDF Viewer
Other		Speakers or Headphones

Firewalls and Domain Access
In order to facilitate the proper operation for the *Pharmacy Technicians University* platform, customers must ensure appropriate network connectivity and firewall traversal for the following IP address domains:
- *.therapeuticresearch.com
- *.vimeo.com
- *.trcassets.com

UIHC Pharmacy Technician Training Program Dismissal Policy

Student Code of Conduct
Subject to the severity of the violation or repeated/multiple occurrences, the Program Director in conjunction with the Program Coordinator maintains the right to discipline a student in violation of Pharmacy Technicians University ("training program") policies up to and including dismissal from the training program. Violations of the Student Code of Conduct include, but are not limited to the following:

- The violation of established policies or procedures and/or local, state, or federal laws.
- Intentionally or recklessly causing physical or psychological injury or harm to any individual, or threatening to cause physical or psychological injury or harm.
- Intentionally or recklessly interfering with training program activities, including, but not limited to: studying; teaching; administration; student conduct proceedings.
- Engaging in sexual, discriminatory, or other harassing conduct that interferes with a person's participation in the training program or work performance, or creates an intimidating, hostile, or offensive educational or work environment.

- Failure to comply in a prompt fashion with the directions of, and/or verbally threatening, abusing, or harassing any training program official, including, but not limited to faculty and staff members.
- Intentionally or recklessly destroying or damaging training program property, and/or the property of others.
- Knowingly initiating or causing to be initiated any false report, warning, or threat.
- Theft, unauthorized possession, or any other misappropriation or conversion of property or services.
- Disorderly conduct; intoxication, indecent, or obscene behavior.
- Use, sale, distribution, or possession of any controlled substance, illegal drug, or drug-related materials, including but not limited to, drug pipes, bongs, roach clips, and other such paraphernalia; possession or use of any controlled substance without physician prescription.
- Sexual misconduct, including, sexual harassment, non-consensual sexual contact, non-consensual sexual intercourse, or sexual exploitation.
- Unauthorized use, intent to use, or possession of any weapon or object used as a weapon.
- Unauthorized personal presence or use of employer premises, facilities, or property.
- Any behavior that disrupts or causes disruption to computer services; damages, alters, or destroys data or records; adversely affects computer software, programs, systems, or networks.
- Violating the terms of any sanction imposed in accordance with this Code.
- Failures to take reasonable steps to avert, stop, report, or leave a situation involving a violation of The Code. Attempting, conspiring to commit, or aiding and abetting in a violation of the Code.
- Violation of the University of Iowa Work Rules, University of Iowa Operations Manual or violation of the Department of Pharmaceutical Care operating procedures.

Student Academic Integrity

The value of Academic Integrity is priceless, and the training program sets the highest standards for students to maintain the value of education. The goal is to prepare students to become productive pharmacy technicians in the workforce and professionals in the community. It is considered a violation of academic integrity for students to deceive and/or misrepresent their academic work, including, but not limited to:

- Copying work, ideas, or projects from any other person or media
- Sharing computer identification logins with another person and accessing another person's account
- Allowing another person to copy or borrow original work in any form
- Allowing another person to copy answers on an exam or to communicate with another person during an exam
- Representing the work of another team member as one's own
- Stopping or delaying another student in the completion of any work
- Plagiarism in any form, including failing to give credit to the source of thoughts, words, ideas, or work from any other person, printed material, or web site

When a violation of this policy occurs, disciplinary action will be taken. Subject to the severity of the violation or repeated/multiple occurrences, academic dishonesty may result in a written warning or the

dismissal from the training program. All violations of the Academic Integrity Policy are documented and made part of the student's human resources record. The Program Director, Program Coordinator, employee official and program official have the discretion to determine what constitutes a violation of Academic Integrity Policy.

Academic Progress

Each student must complete the full training program (didactic, laboratory, and experiential) within the time frame required by the corresponding state's regulation. Since students are working in a retail environment and are expected to perform duties in the pharmacy while completing the training program, it is not expected that students will complete assignments or make progress on a daily basis. With that understanding, a student will be a candidate for dismissal from the training program if
- Progress is not consistent with the time frame required by the corresponding State Board of Pharmacy;
- No progress is demonstrated in a 30-day period;
- Failure to achieve a passing grade* within three attempts on any didactic exam or lab simulation; or
- Failure to achieve a satisfactory rating for any aspect of an experiential rotation.

The Program Director and Program Coordinator will review the student's progress to determine which skills or areas of learning should be remediated and if the student will remain in the training program. ***Note:*** *A student who is granted a leave of absence will not be dismissed from the training program while on leave.*

*Passing grades are as follows:
- 80% minimum score for each didactic module quiz
- 75% minimum score for the final exam
- 100% minimum score for each simulation

UIHC Pharmacy Technician Training Program Leave of Absence Policy

A leave of absence is a temporary interruption in the training program for a period of time up to one year. Leaves can occasionally be extended under special circumstances. In order to take a leave of absence, the student must not be a candidate for dismissal as stated in the Dismissal Policy.

Any student who wishes to take a leave of absence should first confer with their supervisor or the Program Director to understand the ramification of the leave. Since some states require completion of the training program in a certain time frame, a leave could result in a failure to meet the requirement for licensure or registration.

Reasons for leave may include but not be limited to:
- family emergency
- military duty
- extended illness
- maternity or paternity

Requesting a Leave of Absence
A request for leave must be submitted in writing to the Program Director or Program Coordinator **at least two weeks** prior to the start of the leave period. All requests will be reviewed by the Program Director and Program Coordinator before the requested leave date.

Returning from Leave
Students returning from leave should notify the Program Director of their planned return **at least four weeks** prior to their planned return. A previously approved leave can be extended to up to one year based on review and approval by the Program Director.

UIHC Pharmacy Technician Training Program ADA Policy

University of Iowa Health Care is committed to maintaining an inclusive and accessible environment. Ensuring that all faculty and students have access to facilities, information, and information technology associated with administration and services, coursework and instruction, and learning programs is critical to the program's educational mission. The Americans with Disabilities Act (ADA) prohibits discrimination against qualified individuals with disabilities in employment and educational programs. Program websites must be accessible so that students, prospective students, employees, guests and visitors with disabilities have equivalent access to the information and functionality provided to individuals without disabilities.

The Department of Pharmaceutical Care at University of Iowa Health Care provides reasonable accommodations in the form of reasonable modifications to policies, practices, or procedures in order to make its services, programs, and activities accessible to qualified individuals with disabilities unless the modification would fundamentally alter the nature of the educational program, or activity. These accommodations and adjustments must be made in a timely manner and on an individualized and flexible basis.

Individual students, staff, and faculty members are responsible for identifying themselves as an individual with a disability when seeking an accommodation or, specifically in the case of students, a modification to an academic program. Individual students, staff, and faculty members are also responsible for documenting their disability (from an appropriately licensed professional) and demonstrating how the disability limits their ability to complete the essential functions of their job or limits the student's participation in services, programs, or activities of the program.

Requests for an accommodation under the ADA should be submitted to the program coordinator or director. Students, staff, and faculty members must maintain institutional standards of performance.

UIHC Pharmacy Technician Training Program Quiz Attempt Reset Policy

In order to maximize the pharmacy technician education, and prove competence, each quiz is limited to 3 attempts to achieve a passing score. It's understandable that some topics may be more difficult than

others, and students may request additional attempt(s) for a particular quiz. In these rare cases instructors, preceptors, or program director/coordinator should follow these recommended policies:

- Attempts on the SAME quiz:
  - 1st, 2nd, 3rd attempts are allowed without any intervention
  - 4th attempt is allowed without recourse, but must be requested through a student's instructor, preceptor, or program director/coordinator
    - Until additional attempt is requested, the system will prevent the student from being able to make a 4th attempt
  - 5th attempt can be authorized with documented remediation by the instructor, preceptor, or program director/coordinator
  - 6th attempt should be directed to the program director/coordinator to determine whether dismissal from the program is warranted

- Attempts on DIFFERENT quizzes
  - A 4th attempt request is allowed for up to 6 different quizzes in TOTAL. The program director will determine whether dismissal from the program is warranted for students that exceed this threshold

UIHC Pharmacy Technician Training Program Curriculum
(Course Topics and Order of Instruction are subject to change or substitution.)

Unit One
- Policies and Procedures
- Pre-Enrollment Assessments
- PTU Orientation
- Role of the Pharmacy Technician
- Simulation- Ethical Considerations
- Drug Information Resources
- Laws Affecting Prescription Dispensing
- Simulation- Communication-HIPAA Scenario
- Drug Regulation and Control
- Controlled Substances
- Restricted Drug Programs
- Simulation- Pseudoephedrine Sales
- State Laws and Regulations
- **Unit Exam I**

Unit Two
- Pharmaceutical Terminology
- Medication Safety
- Simulation- Safety Data Sheets
- Communication
- Communication Supporting Materials
- Simulation- Written Communication

- Simulation- Communication- Hard of Hearing Patients
- Simulation- Communication- Refills
- Simulation- Communication- Phone
- Simulation- Communication- OTCs
- **Unit Exam II**

Unit Three
- Introductory Calculations
- Measurement Calculations
- Basic Pharmaceutical Calculations
- Dosage Calculations
- Business Calculations
- **Unit Exam III**

Unit Four
- Basic Pharmaceutics
- Simulation- Reconstitute an Oral Powder
- Simulation- Medication Manipulation
- Basic Anatomy & Physiology
- Pharmacology
- Anti-Infectives
- Vaccines
- Simulation- Immunization Supplies
- Respiratory Medications
- Integumentary Medications
- Ophthalmic/Otic Medications
- Simulation- Pharmacology- Antibiotics
- Simulation- Pharmacology- Asthma- COPD Medications
- Gastrointestinal Medications
- Cardiovascular Medications
- Renal System
- Simulation- Pharmacology- Cholesterol-Lowering Medications
- Simulation- Pharmacology- Antihypertensives
- Musculoskeletal Medications
- Opioid Epidemic- Naloxone
- Nervous System Medications
- Endocrine Medications
- Reproductive System Medications
- Nutrition
- Cancer Medications
- Simulation- Pharmacology- Antidepressants
- Simulation- Pharmacology- Antidiabetics
- Simulation- Offering Pharmacist Counseling
- **Unit Exam IV**

Midterm Exam

Unit Five

- Prescription Drop-Off and Entry
- Prescription Preparation
- Simulation- Look-Alike/Sound-Alike Medications
- Simulation- High-Alert Medications
- Simulation- Special Medication Handling
- Simulation- Communication- Drop-off Prescription Questions
- Simulation- Difficult to Read Prescriptions
- Simulation- Original Containers
- Simulation- Counting and Measuring Medications
- Simulation- Filling a Prescription
- Simulation- Prescription Processing
- Simulation- Communication- Duplicate Therapy
- Simulation- Communication- Angry Patient
- Simulation- Cash Register Calculations
- Billing and Third-Party Processing
- Simulation- Communication- Insurance Terminology
- Simulation- Communication- Non-Covered Medications
- **Unit Exam V**

Unit Six

- Inventory Control and Management
- Inventory Control and Management Supporting Materials
- Specialty Medications
- Simulation- Refrigerated Medications
- Simulation- Expiration Dates
- Pharmacy Services
- Simulation- Temperature Measurements
- Pharmacy Services Supporting Materials
- Simulation- Medication Lists
- Smoking Cessation
- Emergency Preparedness
- Emergency Preparedness Supporting Materials
- Simulation- Communication- Offering Additional Pharmacy Services
- Simulation- Communication- Comprehensive Medication Review (CMR) Appointment
- **Unit Exam VI**

Experiential Rotation

Unit Seven

- Institutional Non-Dispensing Duties
- Compounding Calculations
- Non-sterile Compounding
- Simulation- Non-Sterile Compounding- Magic Mouthwash
- Simulation- Non-Sterile Compounding- Cream
- Institutional Pharmacy Dispensing Process
- Institutional Pharmacy Dispensing Process
- Simulation- Addressing Workflow Challenges

- Simulation- Proper Hand-Washing Procedure
- Simulation- Communication- Nurses
- Simulation- Unit-Dose Packaging
- Simulation- Oral Syringes
- Simulation- Med Carts
- Simulation- Med Cards
- **Unit Exam VII**

Unit Eight

- Sterile Compounding
- Bloodborne Pathogens
- Simulation- Aseptic Hand Washing & Garbing
- Simulation- Laminar Flow Hood Preparation
- Simulation- Sterile Compounding IV Fluids
- Simulation- Sterile Compounding IV Piggyback
- Simulation- Sterile Compounding IV Push
- Simulation- Sterile Compounding Manipulate Ampules
- Simulation- Sterile Compounding Reconstitute Lyophilized Powder
- Chemotherapy Compounding
- Simulation- Self Evaluation

Experiential Rotation
Review Quizzes Part I
Review Quizzes Part II
Review Quizzes Part III
Review Quizzes Part IV
Final Exam
PTCB (Pharmacy Technician Certification Board) Registration
PTCE (Pharmacy Technician Certification Exam)
Diploma
Evaluation