

**Career-Technical Credit Transfer (CT)²
Pharmacy Technician Career Technical Assurance Guide (CTAG)
August 26, 2012**

The following programs/courses, indicated by a Career-Technical Articulation Number (CTAN), are eligible for granted college credit at state institutions of higher education for (CT)² approved programs/courses at adult career-technical education institutions and public secondary career-technical institutions. In addition, the following courses, indicated by a Career-Technical Articulation Number (CTAN), are eligible for transfer among approved programs/courses at state institutions of higher education.

CTPT001	Introduction to Pharmacy Technician	Credits: 5 Semester Hours
Advising notes: A pharmacy program must contain 350 clock hours of instruction. This course must provide at least 75 clock hours. To be eligible for credit applicants must hold the Pharmacy Technician Certification Board (PTCB) credential.		
CTPT002	Pharmacy Concepts	Credits: 5 Semester Hours
Advising notes: A pharmacy program must contain 350 clock hours of instruction. This course must provide at least 75 clock hours. To be eligible for credit applicants must hold the Pharmacy Technician Certification Board (PTCB) credential.		
CTPT003	Pharmacy Laboratory/Clinical Experience	Credits: 3 Semester Hours
Advising notes: A pharmacy program must contain 350 clock hours of instruction. This course must provide at least 225 clock hours of psychomotor experiences. To be eligible for credit applicants must hold the Pharmacy Technician Certification Board (PTCB) credential.		

Each CTAN identifies the learning outcomes that are equivalent or common in introductory technical courses. In order for students to be able to receive credit under these agreements, the career-technical programs and the state institutions of higher education must document that their course/program content matches the learning outcomes in the CTANs. In accordance with ORC 3333.162, industry standards and certifications provide documentation of student learning. Recognized industry standards are expectations established by business, industry, state agencies, or professional associations. These standards define training program curricular requirements, establish certification or licensure criteria, and often serve as the basis for program accreditation.

Requirements and Credit Conditions:

1. The receiving institution must have a comparable program, major, or courses that have been approved through submission to the Ohio Board of Regents (CT)² approval process for the CTANs listed in this document.
2. Credits apply to courses in the specified technical area at Ohio's public institutions of higher education, provided that the institution offers courses in the specific technical area. In the absence of an equivalent course, and when the institution offers the technical

program, the receiving institution will guarantee to grant and apply an equivalent credit value of the Career-Technical Articulation Number (CTAN) toward the technical requirements of the specific degree/certificate program.

3. The applicant must provide proof to the receiving institution that she/he completed a course or program that has been approved through the (CT)² approval process and that she/he holds the appropriate credential or has passed the end-of-program assessment.
4. A career-technical student seeking credit under the terms of this CTAG must apply and be accepted to the college within two years of graduating from a career-technical education institution.
5. A career-technical student who meets all eligibility criteria will receive the credit hour value for the comparable course(s) as offered at the receiving state institution of higher education.
6. The admission requirements of individual institutions and/or programs are unaffected by the implementation of (CT)² outcomes.
7. The transfer of credit through this CTAG will not exempt a student from the residency requirements at the receiving institution.

Public secondary career-technical students must complete the Pharmacy Technician Specialization pathway to be eligible for credit under this CTAG. This pathway is outlined in the Ohio Department of Education's *Health Science Career Field Technical Content Standards*.

CTPT001- Introduction to Pharmacy Technician

General Course Description: This course provides an introduction to the processes of a pharmacy technician. The course includes medical terminology and pharmaceutical math.

Credits: 5 Semester hours

Learning Outcomes

1. Describe the major types of drug distribution within healthcare facilities, including advantages and disadvantages of unit dose distribution.
2. Utilize medical terminology as it pertains to pharmacy practice.
3. Compute drug formulations and dose conversion.
4. Explain the different computer systems used in pharmacy practice.
5. Interpret medication orders and prescriptions, including the explanation of the factors that cause medication errors in regards to pharmacy practice.
6. Demonstrate and recognize the use of effective written, oral and nonverbal communications with clients, colleagues, healthcare providers and public in pharmacy practice.
7. State the principle sites at which pharmacies are located, including the general functions of pharmacists and the roles, duties, and limitations of technicians.
8. Explain legal aspects of drug dispensing, including those pertaining to drugs categorized in each of the DEA drug schedules.
9. Discuss HIPAA and maintain confidentiality of patient and proprietary business information.
10. Utilize ratio and proportion and other methods in pharmaceutical calculations.
11. Describe drug classification, indications and side effects of given drugs.

12. Explain the proper manner in which to handle infectious and hazardous materials in the pharmacy.

CTPT002 – Pharmacy Concepts and Operations

General Course Description: This course provides an in-depth look at the pharmacy and how drugs are processed. The course also discusses inventory control, billing, and fraudulent activity within the pharmacy.

Credits: 5 Semester hours

Learning Outcomes

1. Explain the concepts and effects of intravenous admixture programs in a pharmacy.
2. Explain the principles of good manufacturing practices and repacking guidelines.
3. Explain the process of compounding bulk, non-sterile and sterile products according to the appropriate technique.
4. Utilize pharmaceutical formulas.
5. Explain the use of drugs on the human system.
6. Explain the steps in processing prescriptions.
7. Discuss the process of pharmacy billing and fraudulent activity.
8. Describe pricing used in the pharmacy business.
9. Compare and contrast popular drugs that are used to treat abnormalities of and/or control major body systems.
10. Define the United States Pharmacopeia (USP) and discuss labeling and packaging of products.
11. Discuss the relevance of the Controlled Substance Act of 1970.
12. Explain third party billing.

CTPT003 – Pharmacy Laboratory and Clinical Experience

General Course Description: This course introduces the student to the practical application of laboratory skills needed to carry perform the duties of a pharmacy technician. Students will be provided opportunities to operate equipment and demonstrate appropriate skills and techniques.

Credits: 3 Semester Hours

Learning Outcomes:

1. Apply practices that restrict microorganisms in the environment and prevent contamination of pharmaceutical products.
2. Demonstrate the proper manner in which to full a syringe, break an ampule, reconstitute a sterile powder, inject liquids into plastic bags.
3. Operate equipment such as Laminar Airflow hoods to ensure successful sterile product mixing.

4. Perform aseptic techniques to prevent contamination of mixtures and medications.
5. Compound non-sterile items.
6. Demonstrate bulk compounding.
7. Demonstrate proper safety procedures necessary to protect patient wellbeing.
8. Interpret the elements of a prescription and assist customers in helping to fill such prescriptions.
9. Properly use pharmaceutical and medical abbreviations and symbols in prescribing and dispensing drugs.
10. Show proper transcription of information as a pharmacy technician.
11. Identify and report fraudulent prescriptions.
12. Demonstrate how to clarify and verify medications prepared by others.
13. Properly perform the steps needed to fill a prescription under the direction of a pharmacist.
14. Calculate the proper amount of drug to dispense as well as the correct number of days supply and dosage regimen.
15. Control inventory.

Pharmacy Technician Panel Participants

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Joshua Alexander	Miami Valley Career and Technical Center
Holly Bennett	Belmont College
Carry Deatley	Southern State Community College
Anna Kiss	Cleveland Heights High School
Amy Leedy	Miami Valley Career and Technical Center
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Jenny Spegal	Sinclair Community College
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Jeffrey Walmsley	Lorain County Community College
Donna Moore-Ramsey	Cuyahoga Community College
Stephanie Saunders	University of Rio Grande/Rio Grande Community College
Julie Clemens	Ohio Board of Regents
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