

# PHM-2080: PHARMACY TECHNICIAN EXAMINATION REVIEW

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## Cuyahoga Community College

**Viewing: PHM-2080 : Pharmacy Technician Examination Review**

**Board of Trustees:**

November 2018

**Academic Term:**

Summer 2021

**Subject Code**

PHM - Pharmacy Technology

**Course Number:**

2080

**Title:**

Pharmacy Technician Examination Review

**Catalog Description:**

Global review of pharmacy practice, pharmacy law, pharmacology, compounding, and calculations. Test taking skills and registration procedure covered. Special focus on exam content outline topics to assist student preparing to take certification examinations for pharmacy technicians.

**Credit Hour(s):**

1

**Lecture Hour(s):**

1

## Requisites

**Prerequisite and Corequisite**

PHM-1360 Pharmacy Practice II, or concurrent enrollment, or departmental approval may be extended to students with adequate documentation showing familiarity with pharmacy practice and ability to perform calculations.

## Outcomes

**Course Outcome(s):**

A. Apply knowledge and skills in areas of science relevant to the pharmacy technician's role, including anatomy/physiology and pharmacology to content on the Certification Exam.

**Objective(s):**

1. Describe basic physiology in its relation to pharmacotherapy.
2. List major pharmacologic classes, naming drugs belonging in each, common indications, and mechanisms of action.
3. List the most commonly prescribed drugs in the U.S., with brand and generic names and indications for use.

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**Course Outcome(s):**

B. Apply knowledge of pharmacy practice, pharmacy law, compounding and calculations when taking pharmacy technician certification exam.

**Essential Learning Outcome Mapping:**

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

**Objective(s):**

1. Identify safety practices in all aspects of the pharmacy technician's roles.
2. Recall quality control and quality assurance measures essential to pharmacy operations.
3. Describe procedures for processing and handling of medication orders and prescriptions during order entry and fill tasks.
4. Recall principles of pharmacy inventory management and control.

5. Recall principles of pharmacy billing and reimbursement.
6. Describe pharmacy information systems and their applications.
7. Describe the concepts of ethics, laws, regulations, and professional standards and relate specific standards and laws to pharmacy practice.
8. Recall laws governing pharmacy, how they are enforced, and how the actions of technicians are regulated by these laws.
9. Identify the most common terminology, abbreviations, and symbols associated with the practice of pharmacy.
10. Perform mathematical calculations essential to the duties of pharmacy technicians in a variety of contemporary settings.
11. Describe the compounding, manufacturing, packaging, and labeling of medications and how these are involved in preparation of patient-specific medications for distribution.
12. Explain aseptic technique and sterile compounding methods and effective infection control procedures.

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**Course Outcome(s):**

C. Successfully register for examinations offered by the Pharmacy Technician Certification Board and other organizations which qualify pharmacy technicians.

**Objective(s):**

1. Discuss the process of Pharmacy Technician certification and the rationale for completing it.
2. Recognize the responsibilities of the pharmacy technician and outline the position as it relates to the pharmacist.

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**Methods of Evaluation:**

1. Homework assignments
2. Practice examinations
3. Quizzes
4. Participation and/or performance on national Certification Exam

**Course Content Outline:**

1. Pharmacy practice topics
  - a. Demographic and clinical information for direct patient care and medication-use review.
  - b. Monitoring medication therapy
  - c. Counseling to optimize the use of medications, equipment, and devices
  - d. Receiving and screening prescriptions/medication orders for completeness, accuracy, and authenticity
  - e. Medication/inventory control principles
  - f. Products requiring special handling and documentation [(e.g., controlled substances, immunizations, chemotherapy, investigational drugs, drugs with mandated Risk Evaluation and Mitigation Strategies (REMS)].
  - g. Use safety data sheets (SDS)
  - h. Pharmacy law and ethics, including confidentiality
    - i. Sterile and nonsterile compounding and aseptic technique
    - j. Quality assurance practices
  - k. Drug recalls and shortages
    - l. Medication error reporting
  - m. Drug information resources
2. Pharmacy calculations
  - a. Systems of measurement
  - b. Metric conversions
  - c. Ratio and proportion
  - d. Concentrations (ratio and percent notation)
  - e. Dosage calculations
  - f. Calculations for electrolytes and IV admixture
  - g. Alligation
  - h. Business math
3. Pharmacology and therapeutics
  - a. Basic physiology
  - b. Biopharmaceutics
  - c. Respiratory drugs
  - d. Central nervous system
  - e. Cardiovascular system

- f. Gastrointestinal system
- g. Musculoskeletal system
- h. Endocrine system
- i. Infectious disease therapy
- j. Oncology
- k. Topical medications
- l. Nutritional products

## Resources

Bachenheimer, Bonnie S. *Manual for Pharmacy Technicians*. 4th ed. Bethesda, MD: ASHP, 2011.

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Hopkins, William A. Jr. *Complete Math Review for the Pharmacy Technician*. 4. Washington, DC: APhA, 2014.

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Aiken C and Anderson RJ. *Certification Exam Review*. 4. St. Paul, MN: Paradigm, 2016.

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## Resources Other

1. Pharmacy Technician Certification Board website <https://www.ptcb.org> (<http://www.ptcb.org/>)

## Instructional Services

### OAN Number:

CTAN Approved: Career Technical Assurance Guide CTPT002 (1 of 2 courses, both must be taken)

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