EDUCATOR’S LESSON PLAN
Pharmacy Technician Training Program
Student Version

Orientation
Orientation introduces the student to basic terms and definitions. An introduction to the Pharmacy Technician Certification Board and the exam is given. PTCB re-certification details are provided with easy to follow steps for maintaining certification. Each subsection is supplemented with a Windows help file accessible at any time from the audio drive.

Section Level - Student Activity
The student will complete each subsection of the Orientation section. This includes: Certification, Licensure, Registration, The PTCB and the Certification Exam, & Re-Certification.

Section Level - Time Frame
3.25 instructional hours, which includes Section Test time of 30 minutes. Projected student homework time, 1.5 hours.

Section Level - Assessment
Student will successfully complete the three sub-section quizzes and will score 75% or above on the Orientation section exam. Student will utilize PassAssured’s Student Learning Center for testing.

Sub-Sections
Certification, Licensure, Registration
This introduction section introduces basic definitions the student will need to know. Definition of these basic terms are a must.

Sub-Section Level – Student Activity
Student will complete 'Certification, Licensure, Registration' study presentation. Approximately 40 minutes of class time and 30 minutes of homework is projected.

Sub-Section Level – Assessment
Successfully complete ‘Certification, Licensure, Registration’ pop quiz.

Sub-Section Level – Time Frame
Approximately 40 minutes of class study time, 15 minutes for pop quiz, and 30 minutes of homework is projected. Total: 85 minutes.

The PTCB and the Certification Exam
Discussions of the Pharmacy Technician Certification Board, its founding members and purpose. The PTCB certification examination structure, time allowed for exam, and broad topic content are reviewed.

Sub-Section Level – Student Activity
Student will complete 'The PTCB and the Certification Exam' study presentation.

Sub-Section Level – Assessment
Successfully complete 'The PTCB and the Certification Exam' pop quiz.
Sub-Section Level – Time Frame
Approximately 40 minutes of class study time, 15 minutes for pop quiz, and 30 minutes of homework is projected. Total: 85 minutes.

Re-Certification
Details the requirements and process needed to maintain certification. Contact information and requirements for re-certification are provided. Technicians must meet certain requirements in order to maintain their certification.

Sub-Section Level – Student Activity
Student will complete 'Re-Certification' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Re-Certification' pop quiz.

Sub-Section Level – Time Frame
Approximately 40 minutes of class study time, 15 minutes for pop quiz, and 30 minutes of homework is projected. Total: 85 minutes.

Federal Law
Federal Law focuses on legislation that affects the Pharmacy Industry. From Food and Drug Administration laws to the Poison Prevention Act, Federal Laws that have guided Pharmacy are presented. The method used in determining a valid DEA# is studied. The section does not cover state and local laws. (State and local laws vary greatly, thus, providing this material in this product is not practical.) The PTCB exam only covers Federal Law.

Section Level - Student Activity
The student will complete six subsections of the Federal Law section. This includes: Pharmacy Law and Time, Federal Law and Drugs', Rules for Controlled Substance Prescriptions, DEA Number Verification, Schedule II Drugs, and Investigational Drugs'

Section Level - Time Frame
13.5 classroom instructional hours, which includes Section Test time of 90 minutes. Projected homework time for student, 3 hours total.

Section Level - Assessment
Student will successfully complete the six sub-section quizzes and will score 75% or above on the Federal Law section exam. Student will utilize PassAssured's Student Learning Center for testing.

Sub-Sections
Pharmacy Law and Time
Discusses different laws and legislation that affect the Pharmacy Industry, when they were enacted and their importance.

Sub-Section Level – Student Activity
Student will complete 'Pharmacy Law and Time' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Pharmacy Law and Time' pop quiz.

Sub-Section Level – Time Frame
Approximately 60 minutes of class study time and 15 minutes for pop quiz. Total classroom time, 75 minutes. Homework time is projected as 30 minutes.

Federal Law and Drugs
Discusses the importance of the Controlled Substance Act of 1970. This section shows how this act regulated the manufacturing, distribution and dispensing of controlled substances based on abuse potential.

Sub-Section Level – Student Activity
Student will complete 'Federal Law and Drugs' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Federal Law and Drugs' pop quiz.

Sub-Section Level – Time Frame
Approximately 60 minutes of class study time and 15 minutes for pop quiz. Total classroom time, 75 minutes. Homework time is projected as 30 minutes.

Rules for Controlled Substance Prescriptions
This section outlines filing procedures, maintaining records according to State and Federal Laws, and drug substitution requirements.

Sub-Section Level – Student Activity
Student will complete 'Rules for Controlled Substance Prescriptions' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Rules for Controlled Substance Prescriptions' pop quiz.

Sub-Section Level – Time Frame
Approximately 60 minutes of class study time and 15 minutes for pop quiz. Total classroom time, 75 minutes. Homework time is projected as 30 minutes.

DEA Number Verification
Illustrates how a Doctor's DEA Number is determined and it's purpose. An interactive display gives the student instructions on how to determine if a DEA Number is valid.

Sub-Section Level – Student Activity
Student will complete 'DEA Number Verification' study presentation.

Sub-Section Level – Assessment
Successfully complete 'DEA Number Verification' pop quiz.

Sub-Section Level – Time Frame
Approximately 60 minutes of class study time and 15 minutes for pop quiz. Total classroom time, 75 minutes. Homework time is projected as 30 minutes.

Schedule II Drugs
Discusses storage requirements for Schedule II Drugs.

Sub-Section Level – Student Activity
Student will complete 'Schedule II Drugs' study presentation.

Sub-Section Level – Assessment
Successfully complete ‘Schedule II Drugs’ pop quiz.

Sub-Section Level – Time Frame
Approximately 60 minutes of class study time and 15 minutes for pop quiz. Total classroom time, 75 minutes. Homework time is projected as 30 minutes.

Investigational Drugs
Defines the four phases of Investigational Drugs.

Sub-Section Level – Student Activity
Student will complete ‘Investigational Drugs’ study presentation.

Sub-Section Level – Assessment
Successfully complete ‘Investigational Drugs Prescriptions’ pop quiz.

Sub-Section Level – Time Frame
Approximately 60 minutes of class study time and 15 minutes for pop quiz. Total classroom time, 75 minutes. Homework time is projected as 30 minutes.

Medication Review
Medication Review introduces the Pharmacy Technician to Pharmacology. The study guide focuses on maintaining the proper instructional level suited for a Pharmacy Technician. The varied types of drugs, prescription types, medication dosage forms, and medical devices are discussed. Drug interaction on the human body's major systems, such as the central nervous system, peripheral nervous system, cardiovascular system and other systems of the human body are introduced. The study concentrates on commonly used drug classes that would be of most concern for the Pharmacy Technician.

Section Level – Student Activity
The student will complete ten subsections of the Calculations section. This includes: Doses and Terminology, Central Nervous System, Peripheral Nervous System, Hormones, Cardiovascular Drugs, Renal Drugs, Anti-Infectant Drugs, Cancer Chemotherapy Drugs, Blood and Blood Formation, and Vitamins.

Section Level – Time Frame
19 hours classroom instructional hours, which includes Section Test time of 90 minutes. Projected homework time for student, 20 hours total.

Section Level – Assessment
Student will successfully complete the ten sub-section quizzes and will score 75% or above on the Medication Review section exam. Student will utilize PassAssured's Student Learning Center for testing.

Sub-Sections

Doses and Terminology
Discusses the different terms used in pharmacology. In-depth review of the different types of medication dosages, such as, tablets, caplets, liquids, creams, emulsions, etc. Also describes the different types of administration devices for certain medications and dosages.

Sub-Section Level – Student Activity
Student will complete 'Doses and Terminology' study presentation.
Sub-Section Level – Assessment
Successfully complete 'Doses and Terminology' pop quiz.

Sub-Section Level – Time Frame
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

Central Nervous System
A medication review of drugs, which effect the Central Nervous System. Drug interactions and the mechanism of action for CNS drugs are reviewed. Components of the central nervous system are briefly discussed.

Sub-Section Level – Student Activity
Student will complete "Central Nervous System" study presentation.

Sub-Section Level – Assessment
Successfully complete 'Central Nervous System' pop quiz.

Sub-Section Level – Time Frame
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

Peripheral Nervous System
A medication review of drugs which effect the Peripheral Nervous System. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Components of the Peripheral Nervous System are briefly reviewed.

Sub-Section Level – Student Activity
Student will complete 'Peripheral Nervous System' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Peripheral Nervous System' pop quiz.

Sub-Section Level – Time Frame
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

Hormones
A medication review of drugs classified as hormones. This agent significantly influences emotions and a persons quality of life. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Reviews of various hormonal drugs and uses of each are reviewed. Local and systemic hormone uses are studied. All of the male and female hormones are discussed.

Sub-Section Level – Student Activity
Student will complete 'Hormones' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Hormones' pop quiz.

Sub-Section Level – Time Frame
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.
**Cardiovascular Drugs**

A medication review of drugs that affect the Cardiovascular System. Basic definitions of terms used in cardiovascular treatment are studied. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Components of the Cardiovascular System are briefly studied. The student will study the differences between various drugs used to treat cardiovascular illnesses.

*Sub-Section Level – Student Activity*

Student will complete 'Cardiovascular Drugs' study presentation.

*Sub-Section Level – Assessment*

Successfully complete 'Cardiovascular Drugs' pop quiz.

*Sub-Section Level – Time Frame*

Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

**Renal Drugs**

A medication review of drugs which affect the Renal System. A review of basic definitions referencing the renal system is discussed. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Components of the Renal System are briefly reviewed.

*Sub-Section Level – Student Activity*

Student will complete 'Renal Drugs' study presentation.

*Sub-Section Level – Assessment*

Successfully complete 'Renal Drugs' Prescriptions' pop quiz.

*Sub-Section Level – Time Frame*

Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

**Anti-Infectant Drugs**

A medication review of drugs classified as Anti-Infectant Drugs. Drugs interactions, mechanism of action and manufacturer named drugs are reviewed. Anti-Infectant drug classes and typical treatment regimes are discussed. Therapeutic classes used in the treatment of infections are reviewed.

*Sub-Section Level – Student Activity*

Student will complete 'Anti-Infectant Drugs' study presentation.

*Sub-Section Level – Assessment*

Successfully complete 'Anti-Infectant Drugs' pop quiz.

*Sub-Section Level – Time Frame*

Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

**Cancer Chemotherapy Drugs**

A medication review of drugs classified as Chemotherapy drugs. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Therapeutic classes used in the treatment of cancer is detailed. Personnel safety and safe handling procedures for these dangerous agents are reviewed.
**Sub-Section Level – Student Activity**
Student will complete 'Cancer Chemotherapy Drugs' study presentation.

**Sub-Section Level – Assessment**
Successfully complete 'Cancer Chemotherapy Drugs' pop quiz.

**Sub-Section Level – Time Frame**
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

**Blood and Blood Formation**
A medication review of blood and blood formation drugs is done. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Basic definition referencing to blood and blood formation abnormalities are given.

**Sub-Section Level – Student Activity**
Student will complete 'Blood and Blood Formation' study presentation.

**Sub-Section Level – Assessment**
Successfully complete 'Blood and Blood Formation' pop quiz.

**Sub-Section Level – Time Frame**
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

**Vitamins**
A medication review of Vitamins is done. Drug interactions, mechanism of action and manufacturer named drugs are reviewed. Fat-soluble and water-soluble vitamins are discussed. A study acronym is illustrated to assist the student in remembering which vitamins are fat-soluble.

**Sub-Section Level – Student Activity**
Student will complete 'Vitamins' study presentation.

**Sub-Section Level – Assessment**
Successfully complete 'Vitamins' pop quiz.

**Sub-Section Level – Time Frame**
Approximately 84 minutes of class study time and 21 minutes for pop quiz, Total classroom time, 105 minutes. Homework time is projected as, 120 minutes.

**Aseptic Techniques**
Aseptic Techniques gives the student a 'bird's eye' view of preparation procedures for parenteral products. Pictures taken during actual preparation of various sterile products are used to illustrate a particular topic. Laminar airflow and Horizontal airflow hoods are covered with pictures and diagrams. Devices used in the preparation of sterile products are illustrated. The study topic provides the basics of Aseptic Techniques with emphasis toward possible testing topics.

**Section Level - Student Activity**
The student will complete seven subsections of the Aseptic Technique section. This includes: Definitions, Syringes, Parenteral, Techniques of Sterile Compounding, Solutions, Parenteral Antineoplastic Agents, and Stability Considerations for Parenteral Products.
Section Level - Time Frame
13 hours, 45 minutes of classroom instructional hours, which includes Section Test time of 60 minutes. Projected homework time for student, 7 hours total.

Section Level - Assessment
Student will successfully complete the seven sub-section quizzes and will score 75% or above on the Aseptic Technique section exam. Student will utilize PassAssured's Student Learning Center for testing.

Sub-Sections
Definitions
The definitions module explores basic terminology and environmental contamination concerns in performing aseptic techniques procedures. Laminar airflow hoods, air filtration systems and inspection requirements are highlighted. A review of vertical airflow hoods, or biological safety cabinets, is included and uses for each type of hood is given.

Sub-Section Level – Student Activity
Student will complete 'Definitions' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Definitions' pop quiz.

Sub-Section Level – Time Frame
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

Syringes
The components of a syringe are illustrated and reviewed. Various types of syringes are graphically illustrated. The components of a needle assembly and how the size or gauge of a needle is determined is graphically illustrated.

Sub-Section Level – Student Activity
Student will complete 'Syringes' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Syringes' pop quiz.

Sub-Section Level – Time Frame
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

Parenteral
A high level review of various injection types is reviewed. The uses of parenteral routes and the four most widely used parenteral routes are discussed. Intravenous injection types and widely used parenteral fluids are illustrated. The module prepares the student for review of sterile compounding.

Sub-Section Level – Student Activity
Student will complete 'Parenteral' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Parenteral' pop quiz.
Sub-Section Level – Time Frame
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

Techniques of Sterile Compounding
A review of sterile compounding procedures provides a broad ‘overview’ of skills needed to perform sterile compounding. Tips in avoiding contamination while using a Laminar airflow hood and various procedures that assure successful sterile product mixing are provided. Examples of filling a syringe, breaking an ampule, reconstituting a sterile powder, injecting liquids into a plastic IV bag, introducing liquids into a glass intravenous bottle, and many more needed aseptic techniques are reviewed.

Sub-Section Level – Student Activity
Student will complete ‘Techniques of Sterile Compounding’ study presentation.

Sub-Section Level – Assessment
Successfully complete "Techniques of Sterile Compounding" pop quiz.

Sub-Section Level – Time Frame
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

Solutions
The Solution section reviews the uses of various solutions used in Pharmacy. Irrigation solutions, parenteral solutions, and TPNs are highlighted.

Sub-Section Level – Student Activity
Student will complete ‘Solutions’ study presentation.

Sub-Section Level – Assessment
Successfully complete ‘Solutions’ pop quiz.

Sub-Section Level – Time Frame
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

Parenteral Antineoplastic Agents
A general overview of preparation, and the safe handling of Antineoplastic agents used in the treatment of cancer is provided. Emphasis on personnel safety and safety procedures for handling these dangerous agents are discussed.

Sub-Section Level – Student Activity
Student will complete 'Parenteral Antineoplastic Agents' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Parenteral Antineoplastic Agents ' Prescriptions' pop quiz.

Sub-Section Level – Time Frame
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

Stability Considerations for Parenteral Products
Parenteral Products have special stability concerns. Stability considerations, as well as information on various types of reference material is given. The steps of a Parenteral Admixture Order is illustrated. Details from receiving the order to delivering to the patient are discussed.

**Sub-Section Level – Student Activity**
Student will complete ‘Stability Considerations for Parenteral Products’ study presentation.

**Sub-Section Level – Assessment**
Successfully complete 'Stability Considerations for Parenteral Products' pop quiz.

**Sub-Section Level – Time Frame**
Approximately 94 minutes of class study time and 15 minutes for the pop quiz. Total classroom time, 109 minutes. Homework time of 60 minutes is projected.

**Calculations**
Pharmacy calculations are an essential function of the Pharmacy Technician. The PTTP’s calculation section provides a refresher path through the aspects of Pharmacy mathematics. Many of our example calculations are done using different methods, thus, providing the student a choice for calculating Pharmacy math problems that best suits the individual’s needs. Our calculation section provides an excellent tool for learning Pharmacy math. Our calculations are performed ‘in motion’, with a timed audio presentation.

**Section Level - Student Activity**
The student will complete eleven subsections of the Calculations section. This includes: Metric Measurements, Abbreviations, Roman Numerals, 'Fractions, Decimals & Percent', Temperature Conversions, Ratio Proportions, 'Quantities, Dilutions,&Concentrations', Dosage Regimen, IV Flow Rates, Powder Volumes, and Pricing.

**Section Level - Time Frame**
20 hours classroom instructional hours, which includes Section Test time of 120 minutes. Projected homework time for student, 22 hours total.

**Section Level - Assessment**
Student will successfully complete the eleven sub-section quizzes and will score 75% or above on the Calculations section exam. Student will utilize PassAssured's Student Learning Center for testing.

**Sub-Sections**
**Metric Measurements**
Audio, charts, graphic illustrations and text help files are used to provide the student with knowledge and reference tables for use in performing various conversions. The units of measurement for the Metric, Avirdupois, and Apothecary systems are discussed.

**Sub-Section Level – Student Activity**
Student will complete 'Metric Measurements' study presentation.

**Sub-Section Level – Assessment**
Successfully complete 'Metric Measurements' pop quiz.

**Sub-Section Level – Time Frame**
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Abbreviations**
The Pharmacy Industry exists in a world of abbreviations. Abbreviation uses in prescriptions are covered in detail. Emphasis on abbreviations that have historically been misinterpreted are discussed. Reference listing of Pharmacy abbreviations is included.

*Sub-Section Level – Student Activity*
Student will complete 'Abbreviations' study presentation.

*Sub-Section Level – Assessment*
Successfully complete 'Abbreviations' pop quiz.

*Sub-Section Level – Time Frame*
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Roman Numerals**
The eight primary Roman Numerals are illustrated, with emphasis on 'rules' for adding and subtracting. Roman Numerals are widely used in Pharmacy.

*Sub-Section Level – Student Activity*
Student will complete 'Roman Numerals' study presentation.

*Sub-Section Level – Assessment*
Successfully complete 'Roman Numerals' pop quiz.

*Sub-Section Level – Time Frame*
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Fractions, Decimals, & Percent**
This review provides the basics of fractions, decimals and percent. The intensive use of 'motion graphics' support the audio driven lesson. A good understanding of this section will provide the student a basis for the remaining calculations topics.

*Sub-Section Level – Student Activity*
Student will complete 'Fractions, Decimals, & Percent' study presentation.

*Sub-Section Level – Assessment*
Successfully complete "Fractions, Decimals, & Percent" pop quiz.

*Sub-Section Level – Time Frame*
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Temperature Conversions**
Two widely used methods for Fahrenheit – Centigrade temperature conversions are illustrated. The audio driven lesson uses ‘graphics in motion’ to provide clearly explained examples of typical pharmacy temperature conversions.

*Sub-Section Level – Student Activity*
Student will complete ‘Temperature Conversions’ study presentation.

**Sub-Section Level – Assessment**
Successfully complete ‘Temperature Conversions’ pop quiz.

**Sub-Section Level – Time Frame**
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Ratio Proportions**
Ratio proportion relationships are used to provide a means for reducing or enlarging chemical mixtures used in pharmacy. Determining the proper amount of solution to mix with drug active ingredients is covered.

**Sub-Section Level – Student Activity**
Student will complete ‘Ratio Proportions’ study presentation.

**Sub-Section Level – Assessment**
Successfully complete ‘Ratio Proportions’ Prescriptions’ pop quiz.

**Sub-Section Level – Time Frame**
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Quantities, Dilutions, & Concentrations**
Quantities, dilutions, & concentrations provide a review of unit of measurement for drug and expressions of quantity and concentration for drugs in drug products. Illustrations are discussed for the different methods for determining quantities of ingredients and concentration of drugs when preparing or dispensing drug products.

**Sub-Section Level – Student Activity**
Student will complete ‘Quantities, Dilutions, & Concentrations’ study presentation.

**Sub-Section Level – Assessment**
Successfully complete ‘Quantities, Dilutions, & Concentrations’ pop quiz.

**Sub-Section Level – Time Frame**
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Dosage Regimen**
A review of methods of expressing doses and dosage regimens is given. The student will learn to calculate the amount of drug product to dispense, or the number of days’ supply from a dosage regimen. In addition, emphasis on learning methods to calculate doses for pediatric patients are provided.

**Sub-Section Level – Student Activity**
Student will complete ‘Dosage Regimen’ study presentation.

**Sub-Section Level – Assessment**
Successfully complete ‘Dosage Regimen’ pop quiz.

**Sub-Section Level – Time Frame**
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.
**IV Flow Rates**
The student will learn to determine the flow rate of an IV solution when given the total volume, total time of administration, and the drops delivered per ml by the administration set.

*Sub-Section Level – Student Activity*
Student will complete 'IV Flow Rates' study presentation.

*Sub-Section Level – Assessment*
Successfully complete 'IV Flow Rates' pop quiz.

*Sub-Section Level – Time Frame*
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Powder Volumes**
Discussions of powder volume concept are given. Learn how to calculate powder volume and how to use this information in reconstituting dry powders for suspension or solution.

*Sub-Section Level – Student Activity*
Student will complete 'Powder Volumes' study presentation.

*Sub-Section Level – Assessment*
Successfully complete 'Powder Volumes' pop quiz.

*Sub-Section Level – Time Frame*
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Pricing**
Pricing methods support the needs of the pharmacy as a business enterprise. Our study guide will provide a review of various pricing methods used in retail pharmacy.

*Sub-Section Level – Student Activity*
Student will complete 'Pricing' study presentation.

*Sub-Section Level – Assessment*
Successfully complete 'Pricing' pop quiz.

*Sub-Section Level – Time Frame*
Approximately 82 minutes of class study time and 17 minutes for pop quiz, Total classroom time, 99 minutes. Homework time is projected as, 120 minutes.

**Pharmacy Operations**
Pharmacy Operations is the core of the Pharmacy Technicians responsibilities. Day to day operations, interfacing with customers, maintaining patient records, and assuring the Pharmacy meets all State, Federal and local requirements are covered. Managing proper inventory controls is vital in assuring continuing success of the Pharmacy business. An overview of insurance claims and “Third Party” reimbursement is provided.

*Section Level -Student Activity*
The student will complete five subsections of the Pharmacy Operations section. This includes: Basic Facts in Pharmacy, Assisting the Pharmacist, General Prescription Duties, Medication Distribution and Inventory Control, and Third Party Reimbursement.

**Section Level - Time Frame**

13.5 classroom instructional hours, which includes Section Test time of 120 minutes. Projected homework time for student is 7 1/2 hours.

**Section Level - Assessment**

Student will successfully complete the five sub-section quizzes and will score 75% or above on the Pharmacy Operations section exam. Student will utilize PassAssured’s Student Learning Center for testing.

**Basic Facts in Pharmacy**

The Pharmacy Technician will need to be familiar with drug nomenclature. The three names given to each drug is reviewed. NDC codes, mnemonic codes, and the importance of understanding different expiration date formats are discussed and illustrated. The various drug containers are illustrated. The different types of container closures and uses for each is reviewed.

**Sub-Section Level – Student Activity**

Student will complete ‘Basic Facts in Pharmacy’ study presentation.

**Sub-Section Level – Assessment**

Successfully complete ‘Basic Facts in Pharmacy’ pop quiz.

**Sub-Section Level – Time Frame**

Approximately 120 minutes of class study time and 18 minutes for pop quiz. Total classroom time, 138 minutes. Homework time is projected as 90 minutes.

**Assisting the Pharmacist**

Acceptable medication prescribers are reviewed. How prescriptions can be transmitted to a Pharmacy and requirements for certain classes of drugs is discussed. The required information on a prescription and the process for patient refills is given.

**Sub-Section Level – Student Activity**

Student will complete ‘Assisting the Pharmacist’ study presentation.

**Sub-Section Level – Assessment**

Successfully complete ‘Assisting the Pharmacist’ pop quiz.

**Sub-Section Level – Time Frame**

Approximately 120 minutes of class study time and 18 minutes for pop quiz. Total classroom time, 138 minutes. Homework time is projected as 90 minutes.

**General Prescription Duties**

Maintaining an accurate patient profile is crucial in providing medication to a patient. A well-maintained patient profile can prevent improper dispensing of medication and adverse effects for medication. Details of what should be collected for a proper patient profile is illustrated. Formularies, measuring and counting techniques, compounding and the different classes of balances are discussed.

**Sub-Section Level – Student Activity**

Student will complete ‘General Prescription Duties’ study presentation.
Sub-Section Level – Assessment
Successfully complete ‘General Prescription Duties’ pop quiz.

Sub-Section Level – Time Frame
Approximately 120 minutes of class study time and 18 minutes for pop quiz. Total classroom time, 138 minutes. Homework time is projected as 90 minutes.

Medication Distribution and Inventory Control
Definitions of key terms used in inventory management are provided. Ordering techniques and the proper receiving process of ordered items is reviewed. Expired or discontinued stock processes and drug recall issues are illustrated.

Sub-Section Level – Student Activity
Student will complete 'Medication Distribution and Inventory Control' study presentation.

Sub-Section Level – Assessment
Successfully complete 'Medication Distribution and Inventory Control' pop quiz.

Sub-Section Level – Time Frame
Approximately 120 minutes of class study time and 18 minutes for pop quiz. Total classroom time, 138 minutes. Homework time is projected as 90 minutes.

Third Party Reimbursement
Knowledge of “Third Party” reimbursement is an ‘ever changing’ environment. A general overview of processes used for reimbursement and different payment plans currently offered is illustrated. Formularies and generics are reviewed.

Sub-Section Level – Student Activity
Student will complete ‘Third Party Reimbursement’ study presentation.

Sub-Section Level – Assessment
Successfully complete ‘Third Party Reimbursement’ Prescriptions’ pop quiz.

Sub-Section Level – Time Frame
Approximately 120 minutes of class study time and 18 minutes for pop quiz. Total classroom time, 138 minutes. Homework time is projected as 90 minutes.

Tutored Exam
All Tutored Exams are available using the Student Learning Center’s web interface. When the educator has granted the student access to a particular Tutored Exam, the student will gain web access to the testing system. The Tutored Exam is a timed indicated test, with feedback to enhance the student’s learning exercise. The test timers are halted when a feedback screen is displayed. When the three-hour time limit has expired, a warning will appear, indicating to the student that the three-hour time limit has been reached. However, the Tutored Exams will allow the student to complete the test, even if the three-hour time limit has expired. Each question provides full feedback, a visual ‘STOP Light’, and full text feedback. If an answer to a question is correctly selected, feedback is given supporting the correct answer. If an incorrect answer is selected, feedback is given offering the student additional information to formulate the correct answer.

Actions:
Student should practice the Tutored Exam out of class – Unlimited.
**Final Exam**

All Final Exams are available using the Student Learning Center’s web interface. When the educator has granted the student access to a particular Final Exam, the student will gain web access to the testing system. The Final Exam is designed to mimic the PTCB exam. Aspects of an actual exam setting are applied. The Final Exam offers the student no feedback. When a possible answer is selected, the next question is displayed. The ‘Real Time” scoring thermometer is not indicated. The student may quit and resume a practice exam. The educator controls conditions concerning access to Final Exams. The timer will resume during any subsequent test sittings. The score will be based on the number of questions answered correctly, verses the total number of questions (125), within the tree-hour time limit.

**Actions:**

Educator should proctor 3 hours of classroom time for a Final Exam.