West Virginia CTE

Pharmacy Technician Certification Board Preparation

Orientation

1. Students will demonstrate knowledge of basic pharmacy terms and definitions regarding certification, licensure and registration 0711.1
2. Students will differentiate certification, licensure and registration. 0711.2
3. Students will determine certification requirements for the pharmacy technician. 0711.3
4. Students will recognize the origin and goal of the Pharmacy Technician Certification Board (PTCB). 0711.4
5. Students will examine the role of the PTCB. 0711.5
6. Students will distinguish professional organizations related to the field of pharmacy. 0711.6
7. Students will characterize the functions and responsibilities of the pharmacy technician. 0711.7
8. Students will classify the three areas in which skills will be measured on the Pharmacy Technician Certification Exam. 0711.8
9. Students will determine the requirements and process needed to maintain certification. 0711.9

Federal Laws

10. Students will demonstrate knowledge of legislation that affects the pharmacy industry. 0711.10
11. Students will examine laws and legislation affecting the pharmacy industry. 0711.11
12. Students will recognize the importance of the Controlled Substance Act of 1970 as it relates to the manufacturing, distribution and dispensing of controlled substances based on abuse potential. 0711.12

Skip to main content

	13	**Students will differentiate filing procedures, maintaining records according to State and Federal Laws and drug substitution requirements.** 0711.13
	14	**Students will evaluate the mission of the Drug Enforcement Administration.** 0711.14
	15	**Students will determine the process by which a doctor obtains a DEA Number.** 0711.15
	16	**Students will establish the purpose of a prescriber DEA Number.** 0711.16
	17	**Students will illustrate the process to determine the validity of a DEA Number.** 0711.17
	18	**Students will distinguish the storage requirements for Schedule II Drugs.** 0711.18
	19	**Students will investigate the four phases of Investigational Drugs.** 0711.19
Medication Review	20	**Students will demonstrate knowledge of drug classifications, medication dosage form and administration of medications.** 0711.20
	21	**Students will demonstrate basic terms and abbreviations used in the pharmacy.** 0711.21
	22	**Students will differentiate chemical, generic and trade names of drugs.** 0711.22
	23	**Students will compare dosage forms of drugs.** 0711.23
	24	**Students will investigate methods of administering medications.** 0711.24
Drug Classification	25	**Students will demonstrate knowledge of mechanisms of drug actions within the body systems.** 0711.25
	26	**Students will examine the basic structure and functions of the nervous system.** 0711.26
	27	**Students will report uses, mechanism of action, side effects, and examples of the following drug classifications for: • CNS drugs: • sedative hypnotics. • skeletal muscle relaxants. • anticonvulsants. • narcotic analgesics. • antipsychotics. • antidepressants. • antianxiety agents. • CNS stimulants. • Anti-Parkinson's agents. • sympathomimetic agents. • sympatholytic agents. • parasympathomimetics agents. • parasympatholytic agents. • neuromuscular blocking agents.** 0711.27
	28	**Students will chart the location of the major endocrine glands and their hormone secretion.** 0711.28
		Students will differentiate between local and systemic hormones. 0711.29

Skip to main content

30 **Students will differentiate histamine and prostaglndins.** 0711.30

31 **Students will report uses, mechanism of action, side effects, and examples of the following systemic hormones: --androgens. -estrogens. -progestins. -corticosteroids. -insulin. -oral hypoglycemics. -oxytocics. -thyroid hormones. -anti-thyroid hormones** 0711.31

32 **Students will examine the basic structure and functions of the cardiovascular system.** 0711.32

33 **Students will determine the meaning of arrhythmia and angina.** 0711.33

34 **Students will report uses, mechanism of action, side effects, and examples of the following drug classifications for cardiovascular drugs: -cardiac glycosides. -antiarrhythmics. -antianginals. -vasodilators. -calcium channel blockers. -angiotensin-converting enzyme (ACE) inhibitors. -angiotensin II inhibitors. -beta-adrenergic blockers. -alpha-adrenergic blockers. -antilipidemic agents.** 0711.34

35 **Students will examine the basic structure and functions of the renal system.** 0711.35

36 **Students will determine the uses and mechanism of action of diuretics.** 0711.36

37 **Students will report uses, mechanism of action, side effects, and examples of types of diuretics: -thiazides. -loop. -potassium sparing. -combination. -osmotics.** 0711.37

38 **Students will characterize gout.** 0711.38

39 **Students will report uses, mechanism of action, and side effects of gout agents: o Allopurinol. o Probenecid. o Colchicine.** 0711.39

40 **Students will compare electrolytes.** 0711.40

41 **Students will examine the uses, side effects, and examples of electrolytes.** 0711.41

42 **Students will compare bacteriostatic and bacteriocidal.** 0711.42

43 **Students will report uses, mechanism of action, and side effects of anti-infectives: -antibacterial. -urinary anti-infectives. -antibiotics. -Penicillins. -Cephalosporins. -quinolones. -macrolides. -Tetracyclines. -aminoglycosides. -antifungals. -antiparasitic agents. -antihelminthics. -amebicides. -antitubercular agents. -antiviral agents.** 0711.43

44 **Students will characterize cancer.** 0711.44

Skip to main content

Students will characterize Leucovorin. 0711.45

	46	**Students will report uses, mechanism of action, and side effects of chemotherapy drugs: -antimetabolites. -alkylating agents. -hormones. -vinca alkaloids. -asparaginase. -antibiotics.** 0711.46
	47	**Students will examine the composition and functions of blood.** 0711.47
	48	**Students will determine the treatment for Iron Deficiency Anemia.** 0711.48
	49	**Students will determine the treatment for Megaloblastic Anemia.** 0711.49
	50	**Students will report uses, mechanism of action, and side effects of agents used in blood disorders: -anticoagulants. -hemostatics. -antithrombotics. -thrombolytics. -hemorrheologic agents. -antianemics.** 0711.50
	51	**Students will characterize vitamins.** 0711.51
	52	**Students will determine examples and uses of fat-soluble vitamins.** 0711.52
	53	**Students will determine examples and uses of water-soluble vitamins.** 0711.53
	54	**Students will distinguish minerals as related to normal body functions.** 0711.54
Aseptic Techniques	55	**Students will demonstrate knowledge of aseptic techniques** 0711.55
	56	**Students will demonstrate aseptic technique.** 0711.56
	57	**Students will determine the importance of aseptic technique to prevent contamination as it relates to personnel and the environment.** 0711.57
	58	**Students will establish the role of airflow equipment to prevent contamination.** 0711.58
	59	**Students will assess basic equipment for parenteral administration.** 0711.59
	60	**Students will examine methods of administering parenteral medications to include: -intradermal -subcutaneous -intramuscular -intravenous** 0711.60
	61	**Students will examine composition of common parenteral fluids.** 0711.61
	62	**Students will examine compounding.** 0711.62
	63	**Students will characterize aseptic technique utilized by personnel prior to compounding procedures.** 0711.63
	64	**Students will determine the most common and important equipment for compounding.** 0711.64
	[illegible]	**Students will assess specific techniques and procedures utilized to avoid contamination assuring successful sterile product mixing.** 0711.65

Skip to main content

	66 **Students will investigate the importance and process of visual inspection of parenteral products.** 0711.66
	67 **Students will examine components of a parenteral product label.** 0711.67
	68 **Students will characterize various solutions used in pharmacy to include: -irrigation -IV Piggy Back -Total Parenteral Nutrition (TPN)** 0711.68
	69 **Students will distinguish preparation, safe handling and administration of antineoplastic agents.** 0711.69
	70 **Students will evaluate use of Class II Biological Safety Cabinets (Vertical Airflow) and personal protective coverings.** 0711.70
	71 **Students will determine precautions necessary in the disposal of all items used in the preparation and administration of antineoplastic drugs.** 0711.71
	72 **Students will assess stability considerations in parenteral products.** 0711.72
	73 **Students will examine filtration in admixture preparation.** 0711.73
	74 **Students will report examples of parenteral product reference materials.** 0711.74
	75 **Students will demonstrate the steps of a typical parenteral admixture order work flow.** 0711.75
Calculations	76 **Students will demonstrate knowledge of mathematics in pharmacy** 0711.76
	77 **Students will solve conversions using the metric, avirdupois, apothecary and household systems.** 0711.77
	78 **Students will use charts, graphic illustrations and conversion tables to perform mathematical calculations.** 0711.78
	79 **Students will determine the meaning of commonly used abbreviations in prescriptions and medication orders.** 0711.79
	80 **Students will determine abbreviations, symbols or syntax that should be avoided.** 0711.80
	81 **Students will demonstrate the Roman Numeral system of writing numbers.** 0711.81
	82 **Students will apply placement rules when using Roman Numerals.** 0711.82
	83 **Students will apply mathematical computations related to pharmacy procedures.** 0711.83

Skip to main content

84 **Students will apply mathematical principle to conversion equations common to those used in the pharmacy.** 0711.84

85 **Students will apply rules for decimals when writing drug doses.** 0711.8590

86 **Students will apply mathematical principles involving temperature, weights and measures used in the pharmacy.** 0711.86

87 **Students will apply mathematical principles to problems involving dosage calculations and other applied mathematical concepts.** 0711.87

88 **Students will apply ratios and proportions to enlarge and reduce chemical mixtures used in the pharmacy.** 0711.88

89 **Students will calculate amounts of drugs, chemical or solvents when enlarging and reducing formulas.** 0711.89

90 **Students will examine units of measurement for drugs and expressions of quantity and concentration for drugs in drug products.** 0711.90

91 **Students will differentiate methods for determining quantities of ingredients and concentration of drugs when preparing or dispensing drug products.** 0711.91

92 **Students will calculate amounts of two solutions of different strengths which must be combined to get a third solution of a specified strength.** 0711.92

93 **Students will calculate final strength of a diluted or mixed solution when given the original strength(s) and volume(s) and the final volume.** 0711.93

94 **Students will distinguish methods of expressing doses and dosage regimens.** 0711.94

95 **Students will calculate the amount of drug product to dispense a days supply from a dosage regime.** 0711.95

96 **Students will calculate doses for pediatric patients using pediatric dosage information found in reference books.** 0711.96

97 **Students will apply general rules for calculating an infant's or child's dose of medication when given the age or weight of the patient and the normal adult dose.** 0711.97

98 **Students will 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.** 0711.98

99 **Students will calculate powder volume and use calculation to reconstitute dry powders for suspension or solution.** 0711.99

Skip to main content

Students will examine pricing methods used in retail pharmacy. 0711.100

	101	**Students will recognize the meaning of terms used in pricing methods.** 0711.101
Pharmacy Operations	102	**Students will demonstrate knowledge of daily operation of a pharmacy.** 0711.102
	103	**Students will differentiate common pharmaceutical terms to include drug names, codes, expiration date formats, dispensing containers and closures.** 0711.103
	104	**Students will determine considerations regarding authority to prescribe.** 0711.104
	105	**Students will assess possible prescribers.** 0711.105
	106	**Students will characterize general processes related to the dispensing and medication distribution in a traditional pharmacy.** 0711.106
	107	**Students will examine the method of transmitting prescriptions to a pharmacy.** 0711.107
	108	**Students will apply required patient confidentiality.** 0711.108
	109	**Students will articulate the required contents of a prescription and medication order.** 0711.109
	110	**Students will select information obtained from patients when receiving refill requests.** 0711.110
	111	**Students will distinguish the process and information needed when calling prescribers for refill authorization.** 0711.111
	112	**Students will demonstrate receiving electronic transmission of prescriptions.** 0711.112
	113	**Students will differentiate patient information necessary for the patient profile.** 0711.113
	114	**Students will relate the process required when entering prescription/medication information in the patient profile.** 0711.114
	115	**Students will validate appropriate product selection (i.e. brand vs. generic).** 0711.115
	116	**Students will assist the pharmacist in preparing and dispensing medications to include: o measuring and counting o calculation and verification o compounding o weighing o reconstituting o aseptic technique/iv admixtures o controlled substances** 0711.116

Skip to main content

117 **Students will prepare and package prescriptions and medication orders.** 0711.117

118 **Students will relate information contained on a prescription label.** 0711.118

119 **Students will report the advantages of the Unit Dose System.** 0711.119

120 **Students will examine types of Unit Dose Systems.** 0711.120

121 **Students will demonstrate the five "Rights" of medication.** 0711.121

122 **Students will demonstrate the three check points utilized during the dispensing of a prescription.** 0711.122

123 **Students will report the pharmacist's accountability during dispensing of a prescription.** 0711.123

124 **Students will articulate possible sources of medication errors.** 0711.124

125 **Students will predict reporting procedures for mediation errors.** 0711.125

126 **Students will illustrate the use of supplemental patient information.** 0711.126

127 **Students will examine key concepts and terms used in pharmacy inventory management.** 0711.127

128 **Students will report ordering and receiving techniques.** 0711.128

129 **Students will compare methods in managing inventory.** 0711.129

130 **Students will assess ways prescription are numbered, dated and labeled.** 0711.130

131 **Students will predict the role of the FDA in medication recall and adverse drug reaction.** 0711.131

132 **Students will assess theft and drug diversion.** 0711.132

133 **Students will examine methods of reimbursement and available payment plans.** 0711.133

134 **Students will determine claims processing procedures using Universal Claim Forms (UCFs), paper claims, on-line claims and electronic adjudication.** 0711.134

135 **Students will relate the components of drug utilization review.** 0711.135

136 **Students will examine Reimbursement Formulary.** 0711.136

Skip to main content

	137 Students will determine quantity restriction as it applies to preventing dispensing of unnecessary quantities. 0711.137
	138 Students will establish steps for obtaining prior authorization. 0711.138
	139 Students will relate the purpose of the signature log. 0711.139
Clinical Internship	140 Students will demonstrate knowledge of requirements for participation in a clinical internship 0711.140
	141 Students will demonstrate a working knowledge of internship eligibility requirements. 0711.141
	142 Students will comply with required health regulations such as proof of physical examination and immunization status. 0711.142
	143 Students will provide proof of personal health insurance. 0711.143
	144 Students will wear proper clinical attire. 0711.144
	145 Students will maintain mastery or above in attainment of standards in classroom theory and lab. 0711.145
	146 Students will report to clinical site on time and ready to work. 0711.146
	147 Students will notify clinical site and instructor when absent. 0711.147
	148 Students will conform to policies regarding performance of skills and scope of responsibility. 0711.148
	149 Students will correctly and safely perform entry-level procedures under supervision of a pharmacist. 0711.149
	150 Students will request assistance or clarification as needed. 0711.150
	151 Students will maintain professional standards including client confidentiality. 0711.151
	152 Students will organize and effectively manage time. 0711.152
	153 Students will complete documentation required of clinical internship accurately. 0711.153
	154 Students will participate in clinical internship evaluation process. 0711.154