Florida Department of Education
Curriculum Framework

Program Title: **Pharmacy Technician (Postsecondary)**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

PSAV	
Program Number	H170500
CIP Number	0351080506
Grade Level	30, 31
Standard Length	1050 hours
Teacher Certification	PHARMACY 7G
CTSO	HOSA: Future Health Professionals, Skills USA
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2052 Pharmacy Technicians
CTE Program Resources	http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml
Basic Skills Level	Mathematics:11 Language:10 Reading: 10

Purpose

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Health Science career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of Health Science career cluster.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

The content includes but is not limited to metric system, medical terminology, medicinal drugs, pharmaceutical compounding, USP 795 standards, sterile techniques, USP 797 standards, maintenance of inventory, IV preparation, receiving and handling of hazardous materials, preparing purchase orders, receiving and checking supplies purchased, printing labels, typing prescription labels, delivering medications, pricing prescription drug orders and supplies, prepackaging unit dose packages, patient record systems, control records, data processing automation in pharmacy, computer application, employability skills, leadership and human relations skills, health and safety, including CPR.

Additional Information relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

Program Structure

This program is a planned sequence of instruction consisting of 2 occupational completion points.

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

The following table illustrates the post-secondary program structure:

A	HSC0003	Basic Healthcare Worker	90 hours	31-9099
B	PTN0084	Pharmacy Technician 1	360 hours	29-2052
	PTN0085	Pharmacy Technician 2	300 hours	
PTN0086		Pharmacy Technician 3		300 hours

Regulated Programs

This program must be approved by the Board of Pharmacy. Program completers who wish to work as Pharmacy Technicians in the State of Florida must register with the Board of Pharmacy (465.014 F.S.).

Common Career Technical Core – Career Ready Practices

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.

2. Apply appropriate academic and technical skills.

3. Attend to personal health and financial well-being.

4. Communicate clearly, effectively and with reason.

5. Consider the environmental, social and economic impacts of decisions.

6. Demonstrate creativity and innovation.

7. Employ valid and reliable research strategies.

8. Utilize critical thinking to make sense of problems and persevere in solving them.

9. Model integrity, ethical leadership and effective management.

10. Plan education and career path aligned to personal goals.

11. Use technology to enhance productivity.

12. Work productively in teams while using cultural/global competence.

Standards

After successfully completing this program, the student will be able to perform the following:

01.0 Demonstrate knowledge of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Practice human relations.
13.0 Identify pharmaceutical abbreviations and terminology as related to Community Pharmacy Practice.
14.0 Identify medical and legal considerations.
15.0 Perform clerical duties as related to Pharmacy Practice.
16.0 Demonstrate knowledge of basic pharmaceutical chemistry and drug classification as it relates to the human physiology.
17.0 Demonstrate knowledge of inventory control.
18.0 Initiate measurement and calculating techniques as it relates to compounding in pharmacy practice.
19.0 Demonstrate a basic knowledge of pharmaceutical chemistry as it relates to the human physiology.
20.0 Prepare and deliver medications.
21.0 Prepackage unit dose medications.
22.0 Prepare sterile products.

2015 – 2016

Florida Department of Education
Student Performance Standards

Program Title: **Pharmacy Technician (Postsecondary)**
PSAV Number: **H170500**

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the PSAV health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

[redacted]

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document. You can access the course standards and benchmarks by visiting this link: http://www.fldoe.org/core/fileparse.php/5652/urlt/health_sci_-core_psav_cc_1516.rtf

[redacted]

12.0	Practice human relation skills.-The student will be able to:
12.01	Explore the meaning and duties of a pharmacy technician.
12.02	Explore the organizational flow of responsibilities within a pharmacy setting.
12.03	Understand the importance of developing and maintaining a professional rapport with co-workers.
12.04	Identify pharmacy organizations and there role in the profession.
12.05	Demonstrate an understanding of Continuing Education (CE) requirements for pharmacy technicians and how to obtain them.
12.06	Identify the current trends and perspectives in the pharmacy practice.
12.07	Identify the means by which the application of team building can facilitate change within the pharmacy working environment.
13.0	Identify pharmaceutical abbreviations and terminology as related to pharmacy practice--The student will be able to:
13.01	Utilize pharmaceutical medical terminology.
13.02	Analyze the major symbols and abbreviations used on prescriptions and state the meaning.
14.0	Identify medical and legal considerations--The student will be able to:
14.01	Articulate the significance and scope of current national and Florida law and administrative rules as they relate to the practice of the pharmacy technician.
14.02	Convey an understanding of medical legal concepts as they relate to the practice of the pharmacy technician.
14.03	Explain the need for accurate pharmacy documentation and recordkeeping.

	14.04	Justify the importance of HIPAA in pharmacy practice.
	14.05	Convey an understanding the patient's Bill of Rights as it relates to pharmacy.
	14.06	Convey an understanding of pertinent laws governing pharmacy practice such as false prescriptions and drug diversion.
	14.07	Compare and contrast between controlled substances and their applicable regulations.
	14.08	Convey an understanding of the Florida Right to Know Act with respect to hazardous materials.
	14.09	Implement appropriate patient safety goals by applicable accrediting and regulatory organizations.
	14.10	Understand and explain the legal requirements for final check by the pharmacist
	14.11	Classify activities performed by pharmacy professionals as those that may be performed by pharmacy technicians and those that must be performed by licensed pharmacists. For each activity, explain the rationale for the classification.
15.0	Perform clerical duties as related to Pharmacy Practice.--The student will be able to:	
	15.01	Design and evaluate pharmacy dispensing processes step-by-step in retail practice, identifying steps that may result in medication errors and explaining how the processes can be modified to prevent such errors.
	15.02	Demonstrate computer applications in processing pharmacy prescription data.
	15.03	Identify applications of E-Prescribing and facsimile.
	15.04	Utilize and apply interactive communication skills while gathering of accurate information from patients and from other healthcare professionals
	15.05	Identify communication modalities that can result in the transmission of inaccurate information, and explain specific ways to make improvements
	15.06	Create, complete and maintain patient profiles.
	15.07	Demonstrate telephone communication skills and routine inquiries.
	15.08	Convey an understanding appropriate practice standards pertaining to patient counseling.
	15.09	Demonstrate the knowledge of systems used in maintaining pharmacy records.
	15.10	Summarize, evaluate and describe the role of the technician in quality assurance activities as related to prescription processing.
16.0	Demonstrate knowledge of basic pharmaceutical chemistry and drug classification as it relates to the human physiology--The student will be able to:	
	16.01	Define the major classifications of pharmaceuticals.
	16.02	Categorize at least one official compendia of standards for quality and purity of drugs and authoritative information on dosage, administration and therapeutic equivalents.
	16.03	Analyze pharmacy reference manuals and web sites.
	16.04	Apply knowledge of trade names, and generic name equivalents.
17.0	Demonstrate knowledge of inventory control--The student will be able to:	
	17.01	Convey an understanding of industry standards in purchasing pharmaceutical supplies.
	17.02	Maintain controlled substance inventory.
	17.03	Display knowledge of prescription pricing systems used in pharmacy.
	17.04	Maintain stock inventory, communicate shortages and seek alternatives.
	17.05	Prepare electronic purchase orders.
	17.06	Accurately perform the process of purchasing, receiving, storing, distributing and disposing of pharmaceutical supplies.
	17.07	Convey an understanding of industry standards in management of Investigational Drugs.
18.0	Initiate measurement and calculating techniques as it relates to compounding in pharmacy practice--The student will be able to:	
	18.01	Convey an understanding of United States Pharmacopeia (USP) 795 standards.

18.02	Convert measurements within the apothecary, avoirdupois, household and metric systems.
18.03	Perform common pharmaceutical calculations.
18.04	Use common pharmaceutical weighing equipment.
18.05	Use common pharmaceutical volume measurement equipment.
18.06	Explain the technique of preparing common pharmaceutical compounds.
18.07	Summarize, evaluate and describe the role of the technician in quality assurance activities as related to the preparation of non-sterile products.
19.0	Demonstrate a basic knowledge of pharmaceutical chemistry as it relates to the human physiology--The student will be able to:
19.01	Predict physical and chemical incompatibilities utilizing chemistry properties.
19.02	Describe electrolyte balances.
19.03	Relate the general sources, classes, indications, actions, routes and side effects of drugs.
19.04	Demonstrate an understanding of common adult doses of medications and respective contraindications.
20.0	Prepare and deliver medications--The student will be able to:
20.01	Read and prepare medication orders correctly.
20.02	Design and evaluate pharmacy dispensing processes step-by-step in institutional practice, identifying steps that may result in medication errors and explaining how the processes can be modified to prevent such errors
20.03	Check all new orders with medications listed on profiles while noting any discrepancies.
20.04	Utilize special precautions in the preparation of medications for pediatric patients.
20.05	Transport medications safely being aware of hazards: theft, legal implications of accidental loss, and other consequences.
20.06	Demonstrate the proper technique of preparing pharmaceutical compounds. .
20.07	Demonstrate the ability to correctly fill and deliver medication cassettes.
20.08	Collect data from medication administration record and drug use and evaluation form.
20.09	Demonstrate use of automated medication dispensing equipment.
21.0	Prepackage unit dose medications--The student will be able to:
21.01	Locate correct stock container.
21.02	Measure, count required individual doses of medication.
21.03	Label with required information utilizing “tall man” lettering.
21.04	Operate unit dose packaging equipment.
21.05	Place individual dose in appropriate containers, ~~re~~ prepackage in predetermined quantities.
21.06	Prepackage unit dose hazardous drugs.
21.07	Record prepackaged medication data correctly.

	21.08	Summarize, evaluate and describe the role of the technician in quality assurance activities as related to prepackaging unit dose medication.
22.0	Prepare sterile products --The student will be able to:	
	22.01	Convey an understanding of United States Pharmacopeia (USP) 797 regulations.
	22.02	Compare medication order with label on vial and check expiration date of product.
	22.03	Calculate drug dosage for parenteral use.
	22.04	Articulate common drug incompatibilities.
	22.05	Reconstitute parenteral medications.
	22.06	Use aseptic techniques to withdraw medication from stock vial measure correct quantity as instructed, select and insert it into IV solution without error.
	22.07	Use aseptic technique to withdraw medication from an ampule.
	22.08	Prepare parenteral solutions and discuss current intravenous preparation industry trends.
	22.09	Perform the preparation of total Parenteral Nutrition solutions.
	22.10	Perform the preparation of chemotherapeutic agents using proper safety techniques.
	22.11	Utilize the appropriate technique while using specialized equipment such as: laminar flow hoods, filters, pumps, automated compounders, and barrier isolator.
	22.12	Place label on IV solution container and keep records.
	22.13	Perform quality control check.
	22.14	Convey an understanding of storage requirements of reconstituted IV solutions.
	22.15	Convey an understanding of the proper disposal of hazardous Drugs.
	22.16	Summarize, evaluate and describe the role of the technician in quality assurance activities as related to the preparation of sterile products.

Additional Information

Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

Clinical practicum experiences are an integral part of this program.

Special Notes

Due to the clinical experiences students are engaged in through the program and to ensure the safety of both the students and the patients the recommended student to instructor ratio in the classroom is 20:1 and in the lab is 4:1.

This program meets the Department of Health HIV/AIDS Domestic Violence and Prevention of Medical Errors education requirements. Upon completion of this program, the instructor will provide a certificate to the student verifying that these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

It is recommended that program completers take national pharmacy technician certification exam offered by the Pharmacy Technician Certification Board, 2215 Constitution Ave. NW, Washington, DC 20037-2985, (202) 429-7576. This certification is offered all year round on a continual basis.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

Career and Technical Student Organization (CTSO)

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered. The activities of such organizations are defined as part of the curriculum in accordance with Rule 6A-6.065, F.A.C.

Cooperative Training – OJT

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

Basic Skills

In PSAV programs offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 11, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3)(a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

Accommodations

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal

access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Additional Resources

For additional information regarding articulation agreements, Bright Futures Scholarships, Fine Arts/Practical Arts Credit and Equivalent Mathematics and Equally Rigorous Science Courses please refer to:
http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml