

Fayetteville Technical Community College

Detailed Assessment Report 2008-2009 Pharmacy Technology

Mission/Purpose

The Pharmacy Technology curriculum prepares individuals to assist the pharmacist in duties that a technician can legally perform and to function within the boundaries prescribed by the pharmacist and the employment agency

Student Learning Outcomes, with Any Associations and Related Measures, Achievement Targets, Findings, and Action Plans

O 1: Aseptic preparation of parenteral solutions

Students will be able to use information to analyze problems and make logical decisions in the aseptic preparation of parenteral solutions.

Associations:

General Education or Core Curriculum:

- 2 Use critical thinking to analyze problems and make logical decisions.
- 4 Demonstrate quantitative competencies.

Institutional Priorities:

- 2 EDUCATIONAL PROGRAMS-To provide a comprehensive educational program committed to quality instruction and learning focused on student success.

Strategic Plans:

Curriculum Programs- Gen Ed Competencies

- 2.1.1 Promote active learning to serve students from diverse populations.
(Ongoing) NOTE: Click the link, Strategic Plan, for additional objectives and activities for Curriculum Programs 2.1.1.

Related Measures:

M 1: Laboratory activities in PHM 118

Why: Pharmacy technicians working in the hospital setting must be able to accurately prepare parenteral solutions. Given a medication order for a parenteral solution, the technician must have the knowledge and skills necessary to correctly interpret the order, accurately perform calculations and use proper procedures and techniques to prepare the solution.

What and How: The program will be assessed using lab demonstrations and evaluations during PHM 118 laboratory activities. In each lab, students will be given several written orders for parenteral solutions. Students will be graded on their ability to correctly interpret the order, accurately perform calculations and use proper procedures and techniques to prepare the solution.

When and Who: Analysis of the results from the laboratory exercises will be completed by the class instructors and department chair by June 30, 2009

Source of Evidence: Performance (recital, exhibit, science project)

Document:

[IV preparation evaluation outcome #1](#)

Achievement Target:

85% of students will accurately and successfully prepare 10 parenteral solutions. Improperly prepared or dispensed parenteral medications can cause injury or death. Therefore, technicians must perform their duties with a near 100% accuracy rate. Students who can properly prepare 85% of medication orders demonstrate a potential to perform at a near 100% rate with additional training and experience.

Findings (2008-2009) - Achievement Target: Met

100% (17 of 17) students enrolled in PHM 118 lab accurately and successfully prepared 10 parenteral solutions.

O 2: Perform correct calculations when preparing orders

Students will be able to correctly perform calculations required to properly prepare medication orders.

Associations:

General Education or Core Curriculum:

- 2 Use critical thinking to analyze problems and make logical decisions.
- 4 Demonstrate quantitative competencies.

Institutional Priorities:

- 2 EDUCATIONAL PROGRAMS-To provide a comprehensive educational program committed to quality instruction and learning focused on student success.

Strategic Plans:

Curriculum Programs- Gen Ed Competencies

- 2.1.1 Promote active learning to serve students from diverse populations. (Ongoing) NOTE: Click the link, Strategic Plan, for additional objectives and activities for Curriculum Programs 2.1.1.

Related Measures:

M 2: Final Exam in PHM 115

Why: Pharmacy technicians are routinely required to perform calculations in all practice settings of pharmacy. The ability to accurately perform these calculations is essential for safe medication preparation and administration.

What and How: The program will be assessed using an end-of-course comprehensive final written exam in PHM 115. Students will be presented with pharmacy related problems and will be asked to solve those problems accurately and correctly showing all written work.

When and Who: Analysis of the results from the comprehensive written final will

be completed by the class instructors and department chair by June 30, 2009.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Achievement Target:

80% of students will receive a 77 or better on a comprehensive pharmacy calculations exam. Accurate calculations are necessary in order to properly dispense medications and prevent patient harm. Technicians must be able to perform these calculations with a near 100% accuracy rate. Students who can successfully pass a comprehensive pharmacy calculations exam with a 77 or better demonstrate the potential to perform at a near 100% rate with additional training and experience.

Findings (2008-2009) - Achievement Target: Met

83% (19 of 23) students enrolled in PHM 115 received a 77 or better on a comprehensive pharmacy calculations exam.

O 3: Performance at clinical sites

Clinical site preceptors will be satisfied with the student's educational preparation for the workplace environment.

Associations:

General Education or Core Curriculum:

- 2 Use critical thinking to analyze problems and make logical decisions.
- 4 Demonstrate quantitative competencies.

Institutional Priorities:

- 2 EDUCATIONAL PROGRAMS-To provide a comprehensive educational program committed to quality instruction and learning focused on student success.

Strategic Plans:

Curriculum Programs- Gen Ed Competencies

- 2.1.1 Promote active learning to serve students from diverse populations.
(Ongoing) NOTE: Click the link, Strategic Plan, for additional objectives and activities for Curriculum Programs 2.1.1.
- 2.9.3 Co-Op/Clinical Learning Experiences –Reviewing Textbook and required course materials

Related Measures:

M 3: Clinical site performance during PHM 136

Why: Upon successful completion of the pharmacy technology program, students must have the skills, knowledge and abilities needed to work in the various practice settings of pharmacy. Clinical experiences are a good measurement of a student's ability to take information learned in the classroom and lab and apply that knowledge to a real-world work situation.

What and How: The program will be assessed by student performance at the

clinical sites during PHM 136. After completing an eight week rotation at the site, students will be evaluated by the site preceptor on clinical skills and abilities.

When and Who: Analysis of the results for the clinical site evaluations will be completed by the clinical site preceptors and department chair by June 30, 2009.

Source of Evidence: Field work, internship, or teaching evaluation

Document:

[Clinical Evaluation Outcome #3](#)

Achievement Target:

85% of students will receive a satisfactory or above average evaluation during clinical rotations. A technician must be able to perform in the workplace. Clinical rotations place students in actual workplace environments and provide an excellent opportunity for their performance to be evaluated by working professionals. An 85% positive evaluation rate demonstrates that students have the potential to be successful after graduation.

Findings (2008-2009) - Achievement Target: Met

100% (16 of 16) students enrolled in PHM 136 received a satisfactory or above average evaluation during clinical rotations.

Analysis Answers

What were the strengths of your assessment process?

The Pharmacy Technology faculty focused this year on skills that are required for all pharmacy technicians. The outcomes and objectives that were chosen reflected essential qualities needed to work in any area of pharmacy. The focus on the objectives was seen throughout the Program and students demonstrating weakness were offered additional outside assistance prior to the assessments. The process went smoothly and the faculty are satisfied with the results demonstrated by the students.

What were the weaknesses of your assessment process?

Overall, the Pharmacy Technology Department is satisfied with the assessment process and findings. After reviewing the results, the criteria for success for objectives 1 and 3 should have been set higher.

What was learned as a result of your assessment process?

The Pharmacy Technology students are well prepared in basic skills needed to work in any area of pharmacy. Pharmacy calculations continues to be an obstacle for some students as math tends to be a weak area for students in general. Overall, the faculty are focusing on current needs in the workplace and ensuring that graduates have the skills necessary to be successful. The Department will continue to monitor course content for current and accurate material.

How will what was learned impact the direction and emphasis of your academic or support unit?

The Pharmacy Technology Department will continue to focus on qualities needed by entry-

level technicians. Calculations will be incorporated into coursework throughout the program so that students can gain more practice and experience. Current courses will be continuously evaluated to ensure that they reflect updated material and content needed to work as a pharmacy technician.

Annual Reports

Program Review (Academic Units)

All academic program units must do an annual program review. The signed copy of the Review is housed in the Dean's office.

Document:

[Program Review for Pharmacy Technology 2007-08](#)

Advisory Comm. Minutes (Academic Units)

Academic units have associated Advisory Committees that provide community input on program direction and outcomes.

Document:

[Pharmacy Technology Advisory Committee Minutes 8/21/2008](#)