

Program Outcomes Guide (POG)

Program Title: AS degree in Arts and Sciences, Option in Pre-Pharmacy

Program Team: Dr. Kristen Lennon

Expected Program Learning Outcomes (PLO):

Upon completion of the program, the student will:

1. Apply computer and information literacy skills to access and evaluate scientific data and conclusions
2. Evaluate and interpret aspects of the natural world using scientific methods
3. Solve numeric problems and accurately interpret graphical data

Assessment (How do students demonstrate achievement of these PLO?)

Scores on PCAT exam (Ideal)

Acceptance rates into graduate pharmacy schools.

Successful completion of the program.

Course-level assessments. Currently, most of the content-driven PLO are assessed at the course-level as follows:

Course level assessment exams.

Validation (What methods are used to validate your assessment?)

When available, PCAT scores will be evaluated.

Results

HCC students have had tremendous success in getting accepted into Pharmacy School over the past 10 years. The goal this semester will be to identify pre-pharmacy students, assist them with the application process, direct them to appropriate courses, and then evaluate whether they are accepted into pharmacy school.

Follow-up (How have you used the data to improve student learning?)

Pearson Learning currently will not forward PCAT scores to institutions without the approval of each student. We will request that pre-pharmacy students forward this information and will also speak with graduate schools of pharmacy to determine if our students have any consistent deficiencies that are barriers to success. Upon collection of this data we will re-evaluate our program and make any appropriate changes.

Direct access to students through WebAdvisor is imperative. Currently, it is not possible to communicate with students enrolled in the program.

In progress or planned:

- Establish list of pre-pharmacy students and evaluate progress towards completion of program.
- Contact graduate schools of pharmacy and request assistance in evaluating barriers to our student's success.

- Request students forward PCAT scores.

Budget Justification

Pre-Pharmacy Program Matrix

	BIO 101 General Biology I*	CHM 203/CHM 204 Organic Chemistry I/II	BIO 205 Microbiology	PHY 201 General Physics I	MAT 203 Calculus I	MAT 109
1. Apply computer and information literacy skills to access and evaluate scientific data and conclusions	Students will access, process, analyze and synthesize scientific information. Students will use technology to gain knowledge and understanding of specific topics in biology.	X	X	X	X	Use visualization, special reasoning, as well as geometric properties and strategies to model and solve problems.
2. Evaluate and interpret aspects of the natural world using scientific methods	Students will apply the scientific method and scientific reasoning to generate and evaluate hypothesis, experiments, data and conclusions.	Access, process, analyze and synthesize scientific information. Collect, analyze, and evaluate empirical data to substantiate chemical concepts.	X	Access, process, analyze and synthesize scientific information.	X	X
3. Solve numeric problems and accurately interpret graphical data	Students will solve numeric problems to analyze biological data. Students will accurately depict and interpret graphical data.	X	X	Use graphical models to analyze laboratory data.	Students will use calculus to solve applied problems from a variety of disciplines ranging from biology, economics, business, engineering, and the social sciences, but primarily focusing on applications from physics and mathematics.	Collect, organize, and display data as well as use appropriate statistical methods to analyze data and make inferences and predictions. Interpret and analyze numerical data, mathematical concepts, and identify patterns to formulate and validate reasoning.

*BIO 101 is included because it is a likely pre-requisite to other Biology classes such as BIO 205.

X indicates that none of the learning goals listed for this course are aligned with the Program Learning Outcome listed.