PCOA Frequently Asked Questions

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1. What is PCOA?

The Pharmacy Curriculum Outcomes Assessment[®] (PCOA[®]) is a comprehensive tool developed by NABP to provide an independent, objective, and external measure of student performance in United States pharmacy curricula.

The PCOA is suitable for students in all professional years, and provides data to the schools and colleges that may facilitate review of an individual student's performance and progress from year to year in relation to the curriculum. The PCOA also provides data on national results for comparison. As part of the schools and colleges of pharmacy commitment to continuous improvement, the PCOA may help evaluate if a school's curriculum is meeting the desired outcomes of its doctor of pharmacy program.

The PCOA is now required for all individuals nearing the completion of their didactic curriculum to meet Standard 24: Assessment Elements of the ACPE Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree (Standards 2016).

Retrieved from NABP-PCOA https://nabp.pharmacy/programs/pcoa/

2. Why use the PCOA?

In addition to satisfying ACPE's requirement outlined in Standard 24: Assessment Elements, the PCOA offers the following benefits.

- Provides data on individuals' knowledge in four major content areas (as recognized by ACPE) and 28 subtopic areas.
- Score reports;
 - Include a comparison to national samples,
 - Supply the schools and colleges with a tool to provide constructive feedback in relation to the examination outcomes, and
 - Allow the schools and colleges to track individual scores from year to year and document their growth over time.
- Serves as a component of an evaluation plan, as suggested by ACPE guidelines, that:
 - Has formative and summative measures,
 - Provides for collective analyses of findings,
 - Evaluates trends over time, and
 - Includes standardized instruments and data.
- Can provide documentation of improvement in individual performance after a curriculum has been modified or updated;
- Imparts score data that can be used in research and correlational studies with existing assessments such as the National Pharmacy College Admission Test, academic proficiency, and future NAPLEX scores.

Retrieved from NABP-PCOA https://nabp.pharmacy/programs/pcoa/administrators/

3. Who will be required to take the PCOA?

The PCOA is a key evaluation of student learning during each year of the curriculum. It provides students with individual performance measures. The exam is used as a gauge of the School of Pharmacy's performance compared to other schools of pharmacy. This assessment is created by the National Association of Boards of Pharmacy (NABP). PCOA is **a mandatory exam for all P3 and P4 students** at the Texas Tech University Health Sciences Center (TTUHSC) Jerry H. Hodge School of Pharmacy.

4. When will the PCOA be administered?

The PCOA is typically administered annually in the Spring semester (January/February).

5. Where will the PCOA be administered?

The school will designate each campus (Abilene/Amarillo/Dallas/Lubbock) where the assessment will be provided. Students must take the exam in the campus they select at the time of registration and confirmed by the Office of Outcomes Assessment.

6. How many questions are in the PCOA and what is the format?

The PCOA is administered in a computer-based format. The 225-question assessment is composed of formats as follows:

- Multiple-Choice Question Format
- Multiple-Response Question Format
- Constructed-Response Question Format
- Ordered-Response Question Format
- Hot Spot Question Format

For a representative sample of the item types, download PCOA Sample Items.

Retrieved from NABP-PCOA <u>https://nabp.pharmacy/programs/pcoa/</u> and <u>https://nabp.pharmacy/wp-content/uploads/2016/07/PCOA-Sample-Items.pdf</u>

7. How long is the assessment?

Students will have three hours to complete the assessment; however, the school will schedule the testing room for a minimum of four hours to allow for student check-in, seating, exam instructions read, and post-assessment cleanup.

If you finish your assessment early, raise your hand and wait for a proctor to ensure you have properly submitted the assessment and to dismiss you. Then exit as quietly as possible through the designated doors.

8. What should students expect in the exam?

The 225-question assessment is composed of four content areas that are broken down into 28 subtopic areas.

The content areas of the PCOA are as follows:

- Area 1: Basic biomedical sciences (10% of the assessment)
- Area 2: Pharmaceutical sciences (33% of the assessment)
- Area 3: Social, behavioral, and administrative sciences (22% of the assessment)
- Area 4: Clinical sciences (35% of the assessment)

To view the **PCOA content areas**, please visit <u>https://nabp.pharmacy/wp-content/uploads/2016/07/PCOA-Content-Areas-2016.pdf</u>

Retrieved from NABP-PCOA https://nabp.pharmacy/programs/pcoa/

9. Is there any sample exam which helps students to get familiar with the test?

Approximately two weeks prior to the PCOA test day, NABP will send students a link to the PCOA practice test. The practice test includes 50 questions and will help students become familiar with the types of questions and the format of the PCOA, as well as the FastTEST WebLock software used to deliver the assessment. Students who have registered for the PCOA but do not receive the email with the practice test code should check their spam filters. If no email has been received, please contact the Office of Outcomes Assessment.

10. What is FastTEST WebLock browser?

For security purposes, NABP uses the FastTEST WebLock browser, which prohibits access to other Internet browsers and other software until the assessment is completed and submitted. To ensure seamless delivery of the PCOA on testing day, this browser must be downloaded and installed before the examination. It is strongly recommended that it be installed at least two days prior to the testing day to avoid any issues on the day of the PCOA.

11. Are there any websites or books which can help students study for the PCOA?

The purpose of this exam is to assess the knowledge gained during P1 thru P3 year.

There is no specific or recommended study material provided to prepare for the exam.

12. What are the system requirements for the PCOA?

Taking the PCOA requires one the following internet browsers:

- The current version of Mozilla Firefox.
- The current version of Google Chrome.
- The current version of Apple Safari.
- The current version of Microsoft Edge

Additionally, test takers should make sure their computers have the following:

- Adobe Flash Plug-in, version 9.0.115 or newer
- JavaScript enabled
- Cookies enabled
- Screen resolution set to 1024x768 or higher

Students should make sure to bring their internet cables.

To ensure security during the examination, NABP requires the use of a special browser called WebLock that prohibits other computer programs from being opened during the assessment. This browser must be downloaded at least one day before the PCOA administration.

Retrieved from NABP-PCOA <u>https://nabp.pharmacy/programs/pcoa/faqs/</u>

13. How is the PCOA scored?

NABP uses a Rasch-based item response theory model to produce individual scores. Rigorous psychometric analyses are performed to assess model fit, item functioning, accuracy of the key, and form-level reliability. Scores are produced for the total assessment as well as for each of the content areas. Assessment forms from each administration are equated. As a result, scores across administrations are placed on the same measurement continuum, which permits accurate comparisons to be made between the content area scores and between the scores from one year to the next.

Retrieved from NABP-PCOA https://nabp.pharmacy/programs/pcoa/faqs/

14. What information is provided in the score reports?

Two types of score reports are provided: one is customized for each individual student and the other is prepared as a school-level summary report. Both types of score reports are sent to the pharmacy school. Student reports are provided to pharmacy school administrators/faculty to disseminate to individual students. Scores are provided to the pharmacy school within four weeks from the last day of the testing window in which your institution takes the assessment.

Retrieved from NABP-PCOA https://nabp.pharmacy/programs/pcoa/faqs/

Pharmacy Curriculum Outcomes Assessment® (PCOA®) Individual Score Report [STUDENT NAME] Program Year Test Window: [School] Confidence Band Your Score Your Scaled Percentile Rank Reference-Group National Average for Your Score Score for Program Year 418 89 Total Score 464 04 **Basic Biomedical Sciences** 420 87 Pharmaceutical Sciences Social/Behavioral 423 85 Administrative Sciences Clinical Sciences 401 80 300 400 0 100 200 500 600 700

Appendix C: Student Score Report Sample

Scaled Score

Your PCOA® scaled scores for the overall examination and each of the four main content areas are included in the figure and table above. Examination scaled scores range from 0 to 700. The score report includes confidence bands, which indicate the degree of measurement precision in each of your test scores. When a confidence band overlaps two test scores, then by comparison, the performance in those areas should be considered similar.

Also included in the report are average scores for a large, diverse, national group of students who have taken the PCOA (reference group). If you are designated as a student in their first, second, or third program year, your reference group is the national group of students who took the PCOA in the same program year as you. If you are a fourth-year student, your scores will be referenced against scores from the national group of third-year students. Third-year students test at or near the end of the didactic curriculum. The number of students testing after completion of the didactic portion of the curriculum is not large enough to create an independent reference group. Your scores and associated confidence bands can be used to gauge your performance relative to the reference group. If there is no overlap between the confidence band for one of your scores and its corresponding reference-group national average, then you may conclude that you performed differently than your peers. However, if the reference group national average falls largely within your score's confidence band, then your performance should be considered similar to the reference group.

The percentile ranks for your overall score and content area scores are also included in the score report above. Percentile ranks are reported in relation to the reference group. For example, a percentile rank of 68 indicates that you scored as well as or better than 68% of your national peer group.

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Percent-correct scores are reported below for each subtopic along with the number of items in each subtopic. These scores are reported only as a general indicator of subtopic performance. Because the level of item difficulty and the number of items vary across subtopics, strict score comparisons should not be made across subtopics, nor should subtopic scores be used to make inferences about specific performance outcomes.

Sub Topics	# of Items	% Correct
Basic Biomedical Sciences		
Physiology	б	44
Biochemistry	8	75
Microbiology Related to Human Disease	2	60
Immunology	4	25

Pharmaceutical Sciences		
Medicinal Chemistry	15	42
Pharmacology and Toxicology	17	33
Pharmacognosy and Dietary Supplements	2	100
Pharmaceutics/Biopharmaceutics	12	54
Pharmacokinetics	8	20
Pharmacogenomics and Genetics	б	0
Sterile and Nonsterile Compounding	б	43

Social/Behavioral/Administrative Sciences		
Health Care Delivery Systems and Public Health	б	71
Population-Based Care and Pharmacoepidemiology	3	67
Economic and Humanistic Outcomes of Health Care Delivery	2	33
Pharmacy Practice Management	6	0
Pharmacy Law and Regulatory Affairs	5	80
Biostatistics and Research Design	3	80
Ethical Decision Making	3	50
Professional Communication	7	67
Social and Behavioral Aspects of Pharmacy Practice	3	100
Medication Dispensing and Distribution Systems	б	71

Clinical Sciences		
Evidence-based Practice	10	71
Clinical Pathophysiology	8	67
Clinical Pharmacokinetics	5	58
Clinical Pharmacogenomics	2	67
Disease Prevention and Population Health	4	100
Patient Assessment	9	71
Clinical Pharmacology and Therapeutic Decision Making	32	50

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15. What is the consequence of not passing this exam? How does it affect your academic progression?

SOP OP 80.P.05 Procedures for Assessing Performance of Students on the Pharmacy Curriculum Outcomes Assessment (PCOA) exam provides guidelines for identifying students who perform poorly.

Please see the policy link below for details (SOP OP 80.P.05) http://www.ttuhsc.edu/pharmacy/administration/outcomes-assessment/pcoa.aspx

Students identified as a poor performer on the PCOA exam will be placed under probation according to **SOP OP 77.P.26 Academic Standards or Grading, Progressions, Dismissal and Re-Admission.**

Please see the policy link below for details (SOP OP 77.P.26) https://hscweb.ttuhsc.edu/pharmacy/documents/administration/policies/SIGNED_SOP_OP_7 7.P.26 Academic Standards for Grading Progression Dismissal and Re-Admission.pdf

16. Who should students contact if they have questions related to the PCOA?

For academic concerns, please contact the current Chair of the Assessment of Student Learning Committee or Dr. Rebecca Sleeper at <u>Rebecca.Sleeper@ttuhsc.edu</u>

For logistical, technical, or administrative questions, please contact Iverlyn Peng at <u>Iverlyn.Peng@ttuhsc.edu</u>