

National Examination for Pharmacist Licensing in the United States & Assessment of Pharmacy Training



Innovation to Transform Pharmacy
Higher Education Program
Virtual Conference March 2022



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Mission and Vision

FIVE-POINT VISION



Provide unparalleled pharmacy education and training



Lead the nation in pharmaceutical research that impacts health



Be the epicenter of innovative pharmacy services



Advance the profession through leadership and advocacy

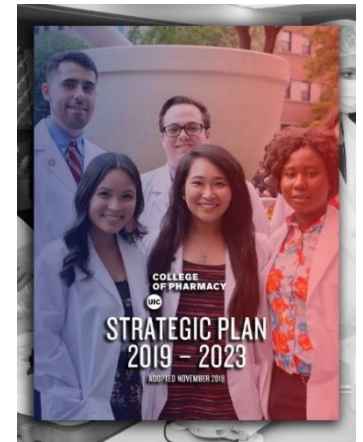


Foster a culture of excellence, collaboration, and inclusiveness

Mission:

- to educate the current and next generation of pharmacists, pharmaceutical scientists, and pharmacy leaders;
- to conduct impactful and cutting-edge research; and
- to provide innovative patient care and serve our local, national, and global communities.

Vision: Our Students, faculty and preceptors, staff, alumni and other strategic partners working together to be the global leader in innovative pharmacy education, research and practice to improve human health



Strategic Plan

STRATEGIC INITIATIVE 1: Optimize the experience of students and post-graduate trainees to ensure the best possible outcomes.

STRATEGIC INITIATIVE 2: Advance the College's brand, increase awareness, and promote the College's differential advantage.

STRATEGIC INITIATIVE 3: Pursue new and optimize existing opportunities to enhance the long-term financial viability of the College.

STRATEGIC INITIATIVE 4: Expand and enhance effective partnerships, collaborations, and strategic alliances to advance the education, research, and service missions of the College.

STRATEGIC INITIATIVE 5: Ensure the necessary infrastructure and resources and attract and retain the highest quality faculty and staff.

Office of Assessment

- Housed in Office of Academic Affairs
- Works with Curricular Assessment Committee (CAC) monitor the curricular assessment plan and evaluate curricular outcomes
- Data inputs are collected from Examsoft, Blackboard, and E-Value for Chicago and Rockford students
- Data are visualized in Tableau to present summary information on course and program learning outcomes, course grades/term GPAs, and end of course reports



Assessment & Quality Improvement

- Feedback from assessments are used to improve outcomes in multiple ways
 - Student level: Identifies struggling students/poor performance
 - Course level: Course coordinators review and improve learning activities
 - College level: Trends in outcomes are discussed within CAC for further enhancement



Overview of licensing in the US: NAPLEX and MPJE



Licensing in the US

- National Association of Boards of Pharmacy (NABP) is an independent, international Association that assists member boards and jurisdictions for the purpose of protecting public health
- North American Pharmacist Licensure Examination (NAPLEX) and Multistate Jurisprudence Examination (MPJE) are exams owned and developed by NABP for boards of pharmacy to consider candidate scores for purposes of licensure
- NAPLEX tests general practice knowledge
- MPJE test knowledge of state/jurisdiction specific laws and regulations
- NAPLEX and MPJE ensure licensure applicants meet minimum competency standards as determined by the states



Comparison

- **NAPLEX**

- 6 hour exam composed of 225 questions in 6 main areas (computerized, fixed form)
- Exam results reported as pass or fail, candidates are allowed five attempts to pass the exam
- Scenario-based format referring to info in a profile/medical record.
- Scaled passing score = 75 (0-150)

- **MPJE**

- 2.5 hours exam composed of 120 questions in 3 main areas (computerized, adaptive technology)
- Exam results reported as pass or fail approximately 7 days after taking exam
- Scaled passing score = 75 (0-100)



NAPLEX Competency Statements

- Area 1: Obtain, Interpret, or Assess Data, Medical, or Patient Information (18%)
- Area 2: Identify Drug Characteristics (14%)
- Area 3: Develop or Manage Treatment Plans (35%)
- Area 4: Perform Calculations (14%)
- Area 5: Compound, Dispense, or Administer Drugs, or Manage Delivery Systems (11%)
- Area 6: Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality (7%)

MPJE Competency Statements

- Area 1: Pharmacy Practice (83%)
- Area 2: Licensure, Registration, Certification, and Operational Requirements (15%)
- Area 3: General Regulatory Processes (2%)



Score Results

- NABP releases candidate's test scores to designated board of pharmacy, as well as any applicable jurisdictions for score transfer (NAPLEX)
- Passing scores are not percentage values
 - NABP uses a mathematically based weighted scoring model to calculate an ability measure for each examinee. Ability measures are transformed to a reported scaled score
 - Passing standard established by panel of pharmacy experts



UNIVERSITY OF ILLINOIS CHICAGO

Assessment of UIC PharmD Students



Assessment: NAPLEX



North American Pharmacist Licensure Examination®
 Passing Rates for 2018–2020 Graduates Per Pharmacy School

SCHOOL NAME	2018 GRADUATES				2019 GRADUATES				2020 GRADUATES			
	All Attempts	Pass Rate	First-time Attempts	Pass Rate	All Attempts	Pass Rate	First-time Attempts	Pass Rate	All Attempts	Pass Rate	First-time Attempts	Pass Rate
University of Arizona	103	81.55%	89	83.15%	130	85.38%	115	86.09%	102	94.12%	97	94.85%
University of Arkansas	117	94.02%	111	93.69%	115	93.04%	108	94.44%	115	93.91%	112	93.75%
University of California, San Diego	66	96.97%	64	98.44%	58	100.00%	58	100.00%	49	100.00%	49	100.00%
University of California, San Francisco	117	90.60%	113	91.15%	106	96.23%	104	96.15%	104	100.00%	104	100.00%
University of Charleston	69	82.61%	61	83.61%	65	75.38%	53	77.36%	56	58.93%	45	64.44%
University of Cincinnati	99	90.91%	91	91.21%	100	93.00%	95	92.63%	87	95.40%	84	95.24%
University of Colorado	152	96.71%	149	96.64%	130	93.08%	123	92.68%	162	89.51%	153	91.50%
University of Connecticut	95	92.63%	91	92.31%	95	88.42%	85	89.41%	66	90.91%	63	90.48%
University of Findlay	57	87.72%	54	87.04%	63	87.30%	58	89.66%	48	89.58%	43	88.37%
University of Florida	278	90.65%	260	91.92%	243	85.60%	219	88.13%	262	87.79%	244	88.93%
University of Georgia	134	94.78%	128	94.53%	144	92.36%	134	92.54%	134	95.52%	130	95.38%
University of Hawaii	74	81.08%	68	82.35%	77	68.83%	70	70.00%	61	83.61%	59	83.05%
University of Houston	118	97.46%	115	97.39%	127	96.85%	124	97.58%	110	96.36%	107	96.26%
University of Illinois, Chicago	194	88.14%	178	88.20%	182	85.16%	163	87.73%	151	88.74%	143	89.51%
University of Iowa	114	88.60%	104	89.42%	101	92.08%	95	92.63%	107	85.98%	99	87.88%
University of Kansas	138	99.28%	138	99.28%	140	91.43%	130	92.31%	139	94.96%	133	94.74%



Assessment: NAPLEX

The screenshot shows the website for the University of Illinois Chicago (UIC) College of Pharmacy. The header includes the UIC logo and navigation links for 'PROGRAMS', 'DEPARTMENTS AND CENTERS', 'ALUMNI AND GIVING', and 'ABOUT'. The main content area features a navigation menu on the left with options like 'College of Pharmacy Rockford', 'Strategic Plan', and 'Diversity, Equity, and Inclusion'. The main heading is 'Top Ranked College of Pharmacy'. Below this, there are two circular award logos from US News & World Report: '#1 BEST COLLEGES IN ILLINOIS' and '#7 BEST COLLEGES IN THE NATION'. A list of bullet points describes the college's rankings. A paragraph explains that these rankings attract world-class faculty. Below this is a section titled 'Great Outcomes' with a list of achievements, where the NAPLEX pass rate is highlighted with a red box. A photograph of graduates is shown on the right side of the 'Great Outcomes' section. The footer includes the UIC Pharmacy logo and a URL.

UIC UNIVERSITY OF ILLINOIS CHICAGO

UI Health UIC.edu Campus Map Apply Current Student Site Make a Gift Directory

PROGRAMS DEPARTMENTS AND CENTERS ALUMNI AND GIVING ABOUT

College of Pharmacy - Chicago | Rockford UI HEALTH IS UIC'S ACADEMIC HEALTH ENTERPRISE

College of Pharmacy Rockford

Strategic Plan

Diversity, Equity, and Inclusion

Top Ranked College of Pharmacy

The UIC College of Pharmacy is:

- the top-ranked college of pharmacy in Illinois according to US News & World Report.
- ranked number seven in the Nation according to US News & World Report.
- ranked in the top ten in total research grant funding according to the American Association of Colleges of Pharmacy (AACP).

These rankings mean that the College is attracting world-class teaching and research faculty. Those rankings also mean that we will continue to attract that caliber of leaders into the future. Those internationally-renown instructors are training the next generation of pharmacy leaders!

Great Outcomes

Smart consumers in a competitive education marketplace always have an eye on the outcomes. They're trying to answer that most difficult question: how will this directly benefit me. Our graduates:

- achieved an on-time graduation rate of 97% (Class of 2021)
- are top 10 in the Nation in total graduates matching into residency training (Class of 2021)
- earned a pass rate of 89.51% for first-time test takers of the North American Pharmacist Licensure Examination (NAPLEX) (2020).

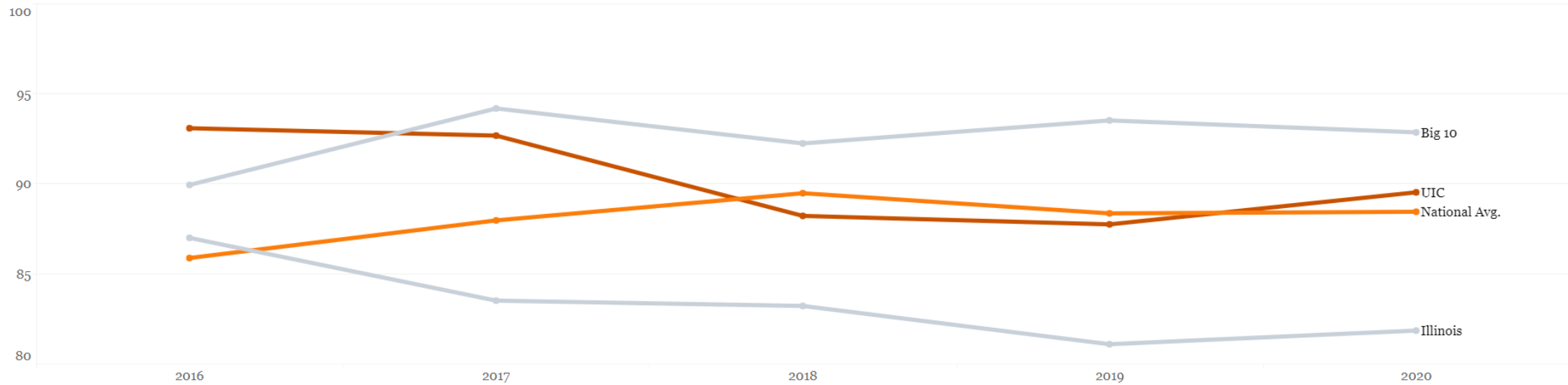
Results like these ensure that UIC pharmacists are more successful and more prepared to take the next step in their career.

<https://pharmacy.uic.edu/about/by-the-numbers/>



Assessment: NAPLEX

NAPLEX 1st Time Pass Rate

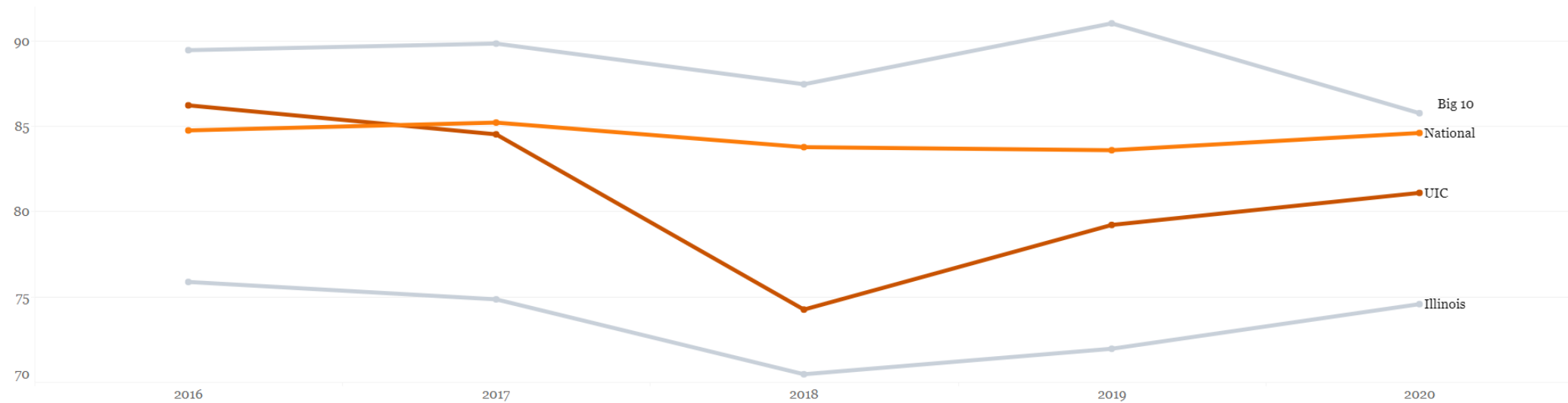


Comparison Group	2016	2017	2018	2019	2020
Big 10	89.92	94.17	92.23	93.50	92.84
Illinois	86.98	83.49	83.20	81.07	81.83
National Avg.	85.86	87.95	89.46	88.34	88.43
UIC	93.07	92.66	88.20	87.73	89.51



Assessment: MPJE

MPJE 1st Time Pass Rate



Comparison Group	2016	2017	2018	2019	2020
Big 10	89.44	89.83	87.45	91.01	85.75
Illinois	75.86	74.84	70.45	71.94	74.56
National	84.74	85.20	83.76	83.58	84.59
UIC	86.21	84.51	74.24	79.20	81.08



Assessment: MPJE

Third Year: Spring Semester	Hours
PHAR 515: IPPE – Institutional/Hospital OR PHAR 516: IPPE – Amb Care/Community	2
PHAR 566: Management and Informatics	2
PHAR 567: Pharmacy Law and Ethics	3
PHAR 509: PDAT 9 – Hematology/Oncology	3
PHAR 510: PDAT 10 – Advanced Disease Management	3
PHAR 470: PhLAMES	0
Electives*	0-5
Total Hours	13-18

Category Management / MPJE










Area 1: Pharmacy Practice |

CREATE CATEGORY

Items per page: 50

Total Categories: 8

Find a Category

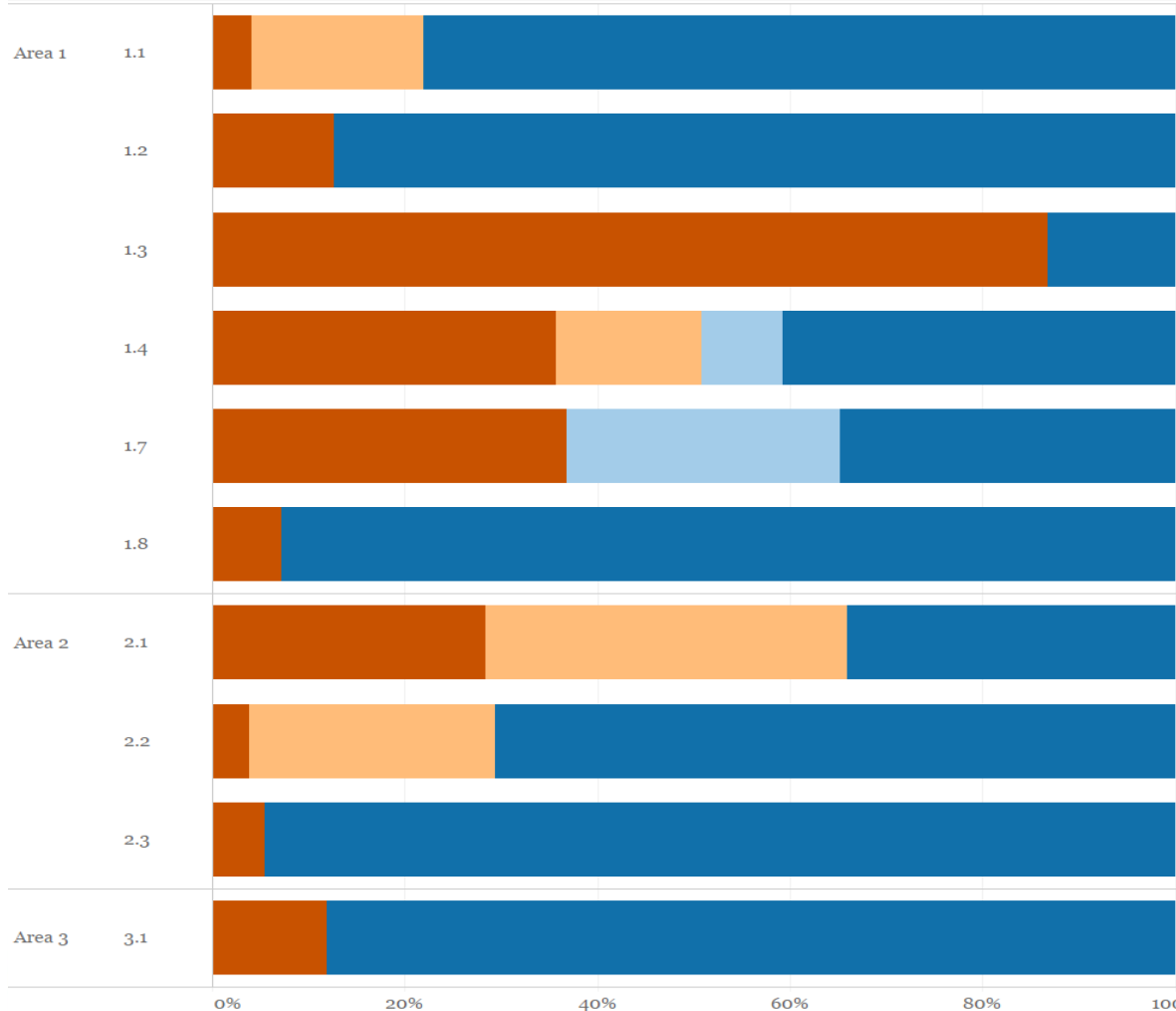
<input type="checkbox"/>	CATEGORY NAME ^	# OF CATEGORIES	QUESTIONS	
<input type="checkbox"/>	1.1 Legal responsibilities of the pharmacist and other pharmacy personnel	2	6	
<input type="checkbox"/>	1.2 Requirements for the acquisition and distribution of pharmaceutical products, including sa...	2	3	
<input type="checkbox"/>	1.3 Legal requirements that must be observed in the issuance of a prescription or drug order	6	9	
<input type="checkbox"/>	1.4 Procedures necessary to properly dispense a pharmaceutical product, including controlle...	15	10	
<input type="checkbox"/>	1.5 Conditions for making an offer to counsel or counseling appropriate patients, including th...	2	0	
<input type="checkbox"/>	1.6 Requirements for the distribution and/or dispensing of non-prescription pharmaceutical pr...	3	0	
<input type="checkbox"/>	1.7 Procedures for keeping records of information related to pharmacy practice, pharmaceuti...	3	6	
<input type="checkbox"/>	1.8 Requirements for handling hazardous materials such as described in USP	4	1	



Assessment: MPJE

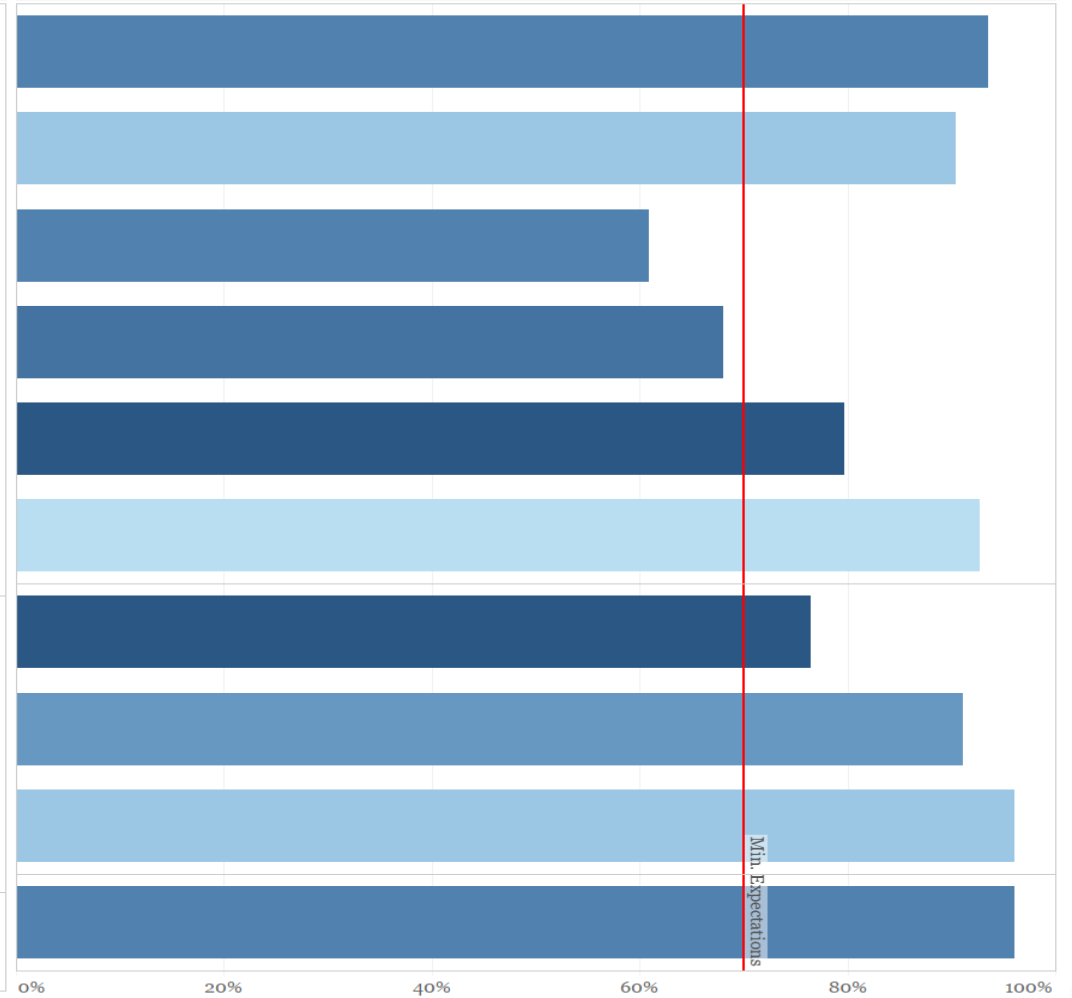
MPJE Outcomes by Performance Criteria

Hover over bar to view criteria definitions



Average Score

Darkers colors represent more questions answered



■ Below Expectations
 ■ Minimum Expectations
 ■ Meets Expectations
 ■ Exceeds Expectations



Assessment: Competencies

• Program Competencies

- Communication
- Health Systems Management
- Leadership
- Lifelong Learning
- Patient Centered Care
- Population Based Care
- Problem Solving
- Professionalism
- Teamwork
- Technology

• ACPE Standards

- Foundational Knowledge
- Essentials for Practice and Care
- Approach to Practice and Care
- Personal and Professional Development

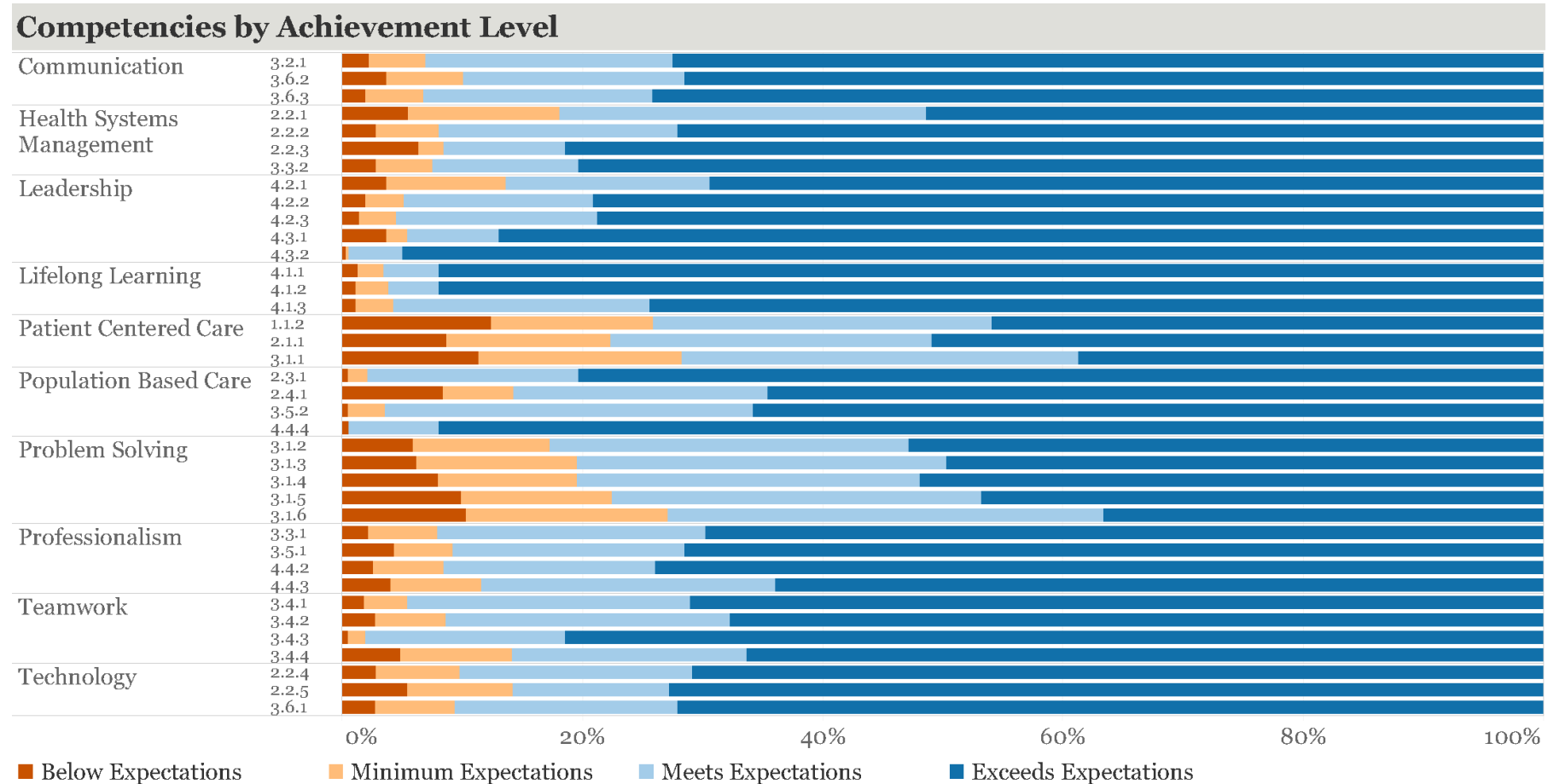


Curriculum Map: PharmD Program

		PHAR 410	PHAR 411	PHAR 412	PHAR 413	PHAR 414	PHAR 422	PHAR 423	PHAR 431	PHAR 432	PHAR 433	PHAR 434	PHAR 435	PHAR 438	PHAR 439	PHAR 440	PHAR 461	PHAR 462	PHAR 463	PHAR 464	
Professionalism	3.3.1																				
	3.5.1		■	■	■	■													■	■	■
	4.4.2		■	■	■	■										■			■	■	■
	4.4.3		■	■	■	■						■							■	■	■
Teamwork	3.4.1		■	■	■	■															■
	3.4.2		■	■	■	■															■
	3.4.3		■	■	■	■															■
	3.4.4		■	■	■	■											■		■	■	■
Patient Centered Care	1.1.2	■	■	■	■	■	■	■	■	■	■	■	■								
	2.1.1	■	■	■	■	■	■	■	■	■	■	■	■	■					■	■	■
	3.1.1	■		■		■	■		■	■	■	■	■								
Population Based Care	2.3.1							■													■
	2.4.1							■													■
	3.5.2					■													■		■
	4.4.4																			■	
Health Systems Mgmt	2.2.1			■		■															
	2.2.2		■	■	■																■
	2.2.3		■	■	■																■
	3.3.2			■								■									■
Technology	2.2.4		■	■	■										■						■
	2.2.5		■	■	■																■
	3.6.1		■	■	■																■
Problem Solving	3.1.2	■	■	■	■	■	■		■	■	■	■	■	■						■	■
	3.1.3	■	■	■		■	■		■	■	■	■	■	■							■
	3.1.4	■	■			■	■		■	■	■	■	■	■	■						■
	3.1.5	■	■			■	■		■	■	■	■	■	■							■
	3.1.6	■				■	■		■	■	■	■	■	■							■
																					■
Lifelong Learning	4.1.1		■	■	■			■													■
	4.1.2		■	■	■																■
	4.1.3	■	■	■	■																■
Leadership	4.2.1								■	■									■	■	■
	4.2.2	■	■	■	■																■
	4.2.3	■	■																		■
	4.3.1	■											■								■
	4.3.2																				■
Communication	3.2.1		■	■		■					■	■		■					■	■	■
	3.6.2	■	■	■	■	■			■	■	■	■	■	■					■	■	■
	3.6.3		■	■		■													■	■	■



Assessment: PharmD Program



Licensing Preparation of UIC PharmD Students



Class of 2022

- UIC COP purchases two Pre-NAPLEX vouchers and one Pre-MPJE voucher for each student
- UIC COP purchases RxPrep book for each student
- Students complete 2 pre-assessments through RxPrep and develop their own self-study plan. Self-study plans are submitted.
- Assessments are tied to PhLAMES program where students complete self-reflections in fall and spring of P4 year



Strategic Initiative 1: Optimize the experience of students and post-graduate trainees to ensure the best possible outcomes.

Strategic Direction 1.5: Support student success and progression.

Objective 1.5.6: Improve preparation for success in residency placement, fellowship, post graduate opportunities, **NAPLEX pass rates, and PCOA scores to match rates near the top of our peer group.**



Action Plan:

- **Continue to monitor licensing pass rates and adjust preparation in PhLAMES as necessary**



Comments and Questions?

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