

UNIVERSITY OF ILLINOIS CHICAGO

Pharmacy Didactic and Experiential Education in the United States and at the University of Illinois Chicago

Kristen L. Goliak, PharmD

Sheila M. Allen, PharmD, BCPS



Speaker

Dr. Kristen Goliak, PharmD
Associate Dean for Academic Affairs
Clinical Associate Professor

Education / Training

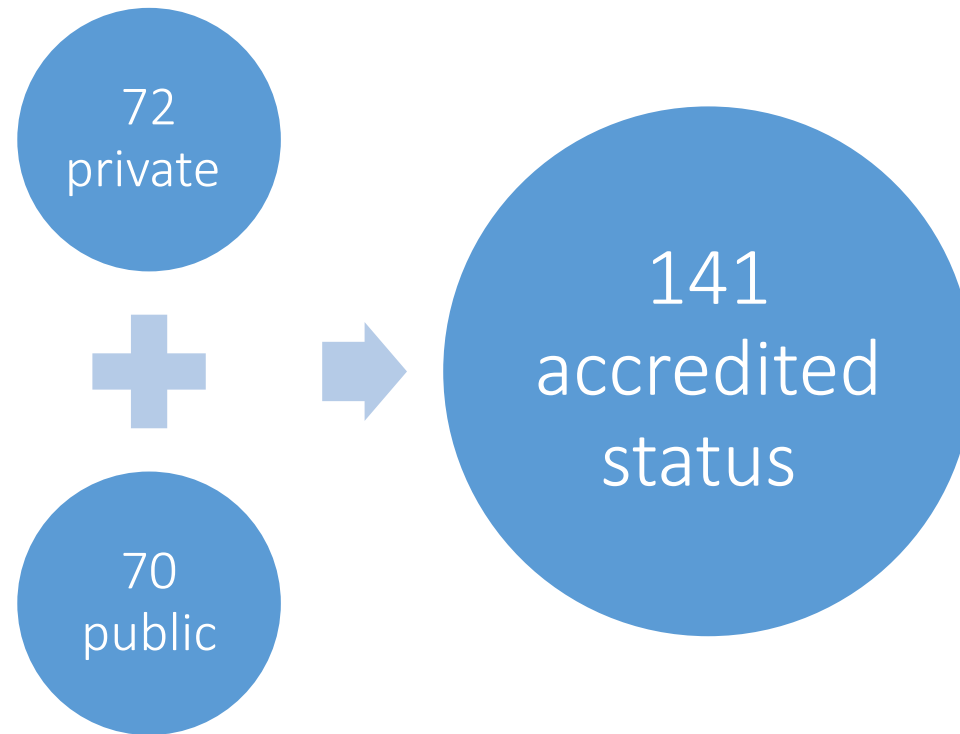
- UIC College of Pharmacy 1998
- Pharmacy Practice Residency 1999

Experience at UIC College of Pharmacy

- Clinical Pharmacist in the Family Medicine
- Director APPE
- Director Experiential Education
- Associate Head, Education



Pharmacy Schools in the US



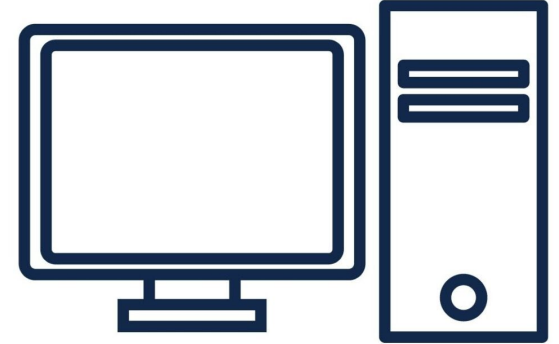
Pharmacy Schools in the US

- To become a pharmacist in the US you will need to earn a Doctor of Pharmacy degree (PharmD) or an equivalent degree and pass 2 licensure exams:
 - North American Pharmacist Licensure Exam (NAPLEX)
 - Either the Multistate Pharmacy Jurisprudence Exam (MPJE) or a jurisprudence exam specific to your state



NAPLEX

- An exam owned and administered by NABP
- Designed to evaluate general practice knowledge
- Six-hour exam
- 225 questions
- Computerized, fixed format
- Results reported as Pass or Fail



NAPLEX Competency Statements

- Area 1 – Obtain, Interpret, or Assess Data, Medical, or Patient Information
 - 18% of Test
- Area 2 – Identify Drug Characteristics
 - 14% of Test
- Area 3 – Develop or Manage Treatment Plans
 - 35% of Test

NAPLEX Competency Statements

- Area 4 - Perform Calculations
 - 14% of test
- Area 5 - Compound, Dispense, or Administer Drugs, or Manage Delivery Systems
 - 11% of test
- Area 6 – Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality
 - 7% of test

MPJE

- Multistate Pharmacy Jurisprudence Examination
- An exam owned and administered by NABP
- Designed to assess the candidates' application of laws and regulations
- There is a unique MPJE developed for each state / jurisdiction
- 2.5 hour exam
- 120 computer-based questions
- Results reported as Pass or Fail



MPJE Competency Statements

- Area 1 – Pharmacy Practice
 - 83% of Test
- Area 2 – Licensure, Registration, Certification, and Operational Requirements
 - 15% of Test
- Area 3 – General Regulatory Processes
 - 2% of Test

University of Illinois Chicago

Background Information

Program Length

4 years

Class Size

160 students per class (Chicago)
50 students per class (Rockford)



University of Illinois Chicago

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- Established in 1859
- Public University
- In 2010, established the Rockford campus
- Over 23 student organizations
- Diverse student population
- 7 college pharmacies
- Over 10,000 living alumni

Curriculum Structure: P1 Year

Fall Courses	Credit Hours
PHAR 410: Integrated Physiology	3
PHAR 411: Introduction to Pharmacy Practice - IPPE	4
PHAR 422: Fundamentals of Drug Action	4
PHAR 431: Pharmaceutics I	3
PHAR 435: Pharmacokinetics	3
PHAR 465: PhLAMES 1	0
Electives	0-1
TOTAL	17-18

Spring Courses	Credit Hours
PHAR 412: Community IPPE or PHAR 413: Hospital IPPE	2
PHAR 423: Biomedical Chemistry	4
PHAR 432: Pharmaceutics II	2
PHAR 438: Introduction to Drug Information (M 1-5)	1
PHAR 461: Pharmacy & the US Healthcare System (M 6-15)	2
PHAR 501: PDAT 1 - Self Care	3
PHAR 502: PDAT 2 - GI/Endocrine	3
PHAR 466: PhLAMES 2	0
Electives	0-1
TOTAL	17-18

Curriculum Structure: P2 Year

Fall Courses	Credit Hours
PHAR 412: Community IPPE or PHAR 413: Hospital IPPE	2
PHAR 433: Pharmaceutics III	2
PHAR 462: Social & Behavioral Pharmacy (M 1-10)	2
PHAR 463: Personal & Professional Development	2
PHAR 464: Patient Safety (M 11-15)	1
PHAR 503: PDAT 3 - Renal/Electrolytes/Nutrition	3
PHAR 504: PDAT 4 - Immunology/Respiratory	4
PHAR 467: PhLAMES 3	0
Electives	0-2
TOTAL	16-18

Spring Courses	Credit Hours
PHAR 414: IPPE - Introduction to Patient Care	2
PHAR 434: Pharmaceutics IV	2
PHAR 439: Pharmacoepidemiology & Biostatistical Reasoning (M 1-5)	1
PHAR 440: Evidence-Based Medicine (M 6-15)	2
PHAR 505: PDAT 5 - Cardiovascular Disease	4
PHAR 506: PDAT 6 - Infectious Diseases	4
PHAR 468: PhLAMES 4	0
Electives	0-3
TOTAL	15-18

Curriculum Structure: P3 Year

Fall Courses	Credit Hours
Direct Patient Care IPPE PHAR 515: Amb Care/Community or PHAR 516: Institutional/Hospital	2
PHAR 520: Applied Pharmaceutics, Pharmacokinetics, Pharmacogenomics	3
PHAR 565: Pharmacoeconomics & Payment	2
PHAR 507: PDAT 7 - Neurology/Psychiatry/Pain	4
PHAR 508: PDAT 8 - Special Topics	3
PHAR 469: PhLAMES 5	0
Electives	0-4
TOTAL	14-18

Spring Courses	Credit Hours
Direct Patient Care IPPE PHAR 515: Amb Care/Community or PHAR 516: Institutional/Hospital	2
PHAR 566: Management & Informatics	2
PHAR 567: Pharmacy Law & Ethics	3
PHAR 509: PDAT 9 - Hematology/Oncology	3
PHAR 510: PDAT 10 - Advanced Disease Management	3
PHAR 470: PhLAMES 6	0
Electives	0-5
TOTAL	13-18

Curriculum Structure: P4 Year

Summer Courses	Credit Hours
APPE Module 1	4
TOTAL	4

Fall Courses	Credit Hours
APPE Module 2	4
APPE Module 3	4
APPE Module 4	4
PHAR 471: PhLAMES	0
TOTAL	12

Spring Courses	Credit Hours
APPE Module 5	0-4
APPE Module 6	0-4
APPE Module 7	0-4
APPE Module 8	0-4
PHAR 472: PhLAMES	0
TOTAL	12

Credit Hours

Courses	Credit Hours
Cores	78
Electives	13
Experiential (IPPEs & APPEs)	42
Total Hours	133

Speaker

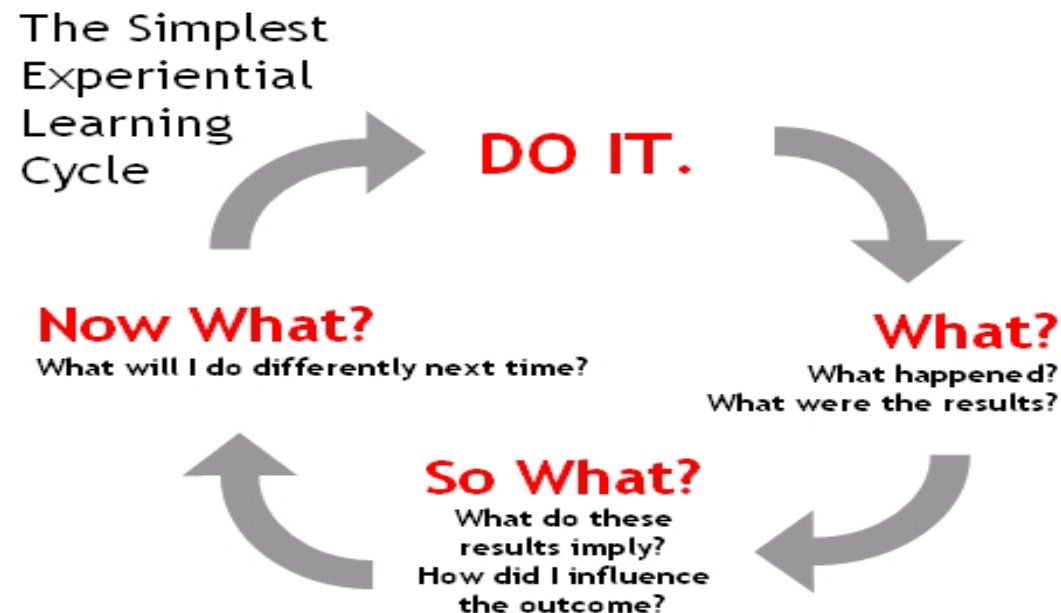


- **Sheila M. Allen, PharmD, BCPS**
 - Senior Director of Experiential Education
 - Clinical Assistant Professor
 - University of Illinois Chicago (UIC) College of Pharmacy (COP)
- **Education/Training**
 - UIC College Pharmacy, PharmD 2003
 - Midwestern University (MWU) Chicago College of Pharmacy (CCP), Primary Care Residency with a Focus on Education 2004
- **Experience**
 - Assistant Professor at MWU CCP and Clinical Pharmacist at Advocate Health Center - Sykes Anti-thrombosis Clinic
 - Patient Care Skills Lab Coordinator at UIC COP
 - Introductory Pharmacy Practice Experience Director at UIC COP

Experiential Education

- “A philosophy and methodology in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, and clarify values.”

- The Association of Experiential Education



Requirements for Experiential Education in US Colleges of Pharmacy

- **Introductory Pharmacy Practice Experiences (IPPEs)**
 - Expose students to contemporary practice models
 - Begin early in the professional curriculum
 - Purposefully integrated into the didactic curriculum
 - No less than 300 clock hours with a minimum of 150 hours balanced between community and institutional health system settings
 - Students must be permitted to assume direct patient care responsibilities and participate in interprofessional patient care teams
- **Advanced Pharmacy Practice Experiences (APPEs)**
 - Occurs after required didactic portion of the curriculum and upon completion of all IPPE hours
 - No less than 1440 hours (36 weeks) with a minimum of 160 hours (4 weeks) per APPE
 - Required: Community, Hospital/Health-System, Ambulatory Care, and Inpatient General Medicine

P1 IPPE & Skills Lab Curriculum

Fall	Spring	IPPE Hours
<p>PHAR 411: Introduction to Pharmacy Practice</p> <p><i>Skills Lab:</i> Intro to Patient Care Process, Outpatient Medication Interviewing, Prescription Verification and Dispensing, Drug Administration, Drug Related Problems, and Medication Counseling Simulations (36 simulation hours)</p> <p><i>IPPE:</i> Pharmacy Practice Week (5 visits x 8 hours in 1 week = 40 IPPE hours)</p>	<p>PHAR 412: Community IPPE <i>Skills Lab:</i> Physical Assessment Technique, Drug Delivery Device Counseling, and Complex Medication Regimens (12 simulation hours)</p> <p><i>IPPE:</i> Community (12 visits x 8 hours (1 day per week) = 96 IPPE hours)</p> <p style="text-align: center;">OR</p> <p>PHAR 413: Hospital IPPE <i>Skills Lab:</i> Inpatient Medication Interviewing, Medication Order Verification, Medication Reconciliation, and Dispensing Simulations (48 simulation hours)</p> <p><i>IPPE:</i> Hospital (6 visits x 8 hours (1 day per week) = 48 IPPE hours)</p>	<p>136 or 88</p>

P2 IPPE & Skills Lab Curriculum

Fall	Spring	IPPE Hours
<p>PHAR 412: Community IPPE <i>Skills Lab:</i> Physical Assessment Technique, Drug Delivery Device Counseling, and Complex Medication Regimens (12 simulation hours)</p> <p><i>IPPE:</i> Community (12 visits x 8 hours (1 day per week) = 96 IPPE hours)</p> <p style="text-align: center;">OR</p> <p>PHAR 413: Hospital IPPE <i>Skills Lab:</i> Inpatient Medication Interviewing, Medication Order Verification, Medication Reconciliation, and Dispensing Simulations (48 simulation hours)</p> <p><i>IPPE:</i> Hospital (6 visits x 8 hours (1 day per week) = 48 IPPE hours)</p>	<p>PHAR 414: Introduction to Patient Care</p> <p><i>Skills Lab:</i> Patient Care Process Skills Simulations (Medication Therapy Assessment, Evidence Based Recommendations, Verbal and Written Care Plans) (29 simulation hours)</p> <p>Basic Cardiac Life Support (BCLS) Training</p> <p>American Pharmacist Association (APhA) Immunization Training</p>	<p>96 or 48</p>

P3 IPPE Curriculum

Fall	Spring	Hours
<p>PHAR 515: Direct Patient Care - Inpatient IPPE</p> <p><i>IPPE: Inpatient (12 visits x 8 hours (1 day per week) = 96 IPPE hours)</i></p> <p style="text-align: center;">OR</p> <p>PHAR 516: Direct Patient Care - Ambulatory Care/Advanced Community IPPE</p> <p><i>IPPE: Outpatient (12 visits x 8 hours (1 day per week) = 96 IPPE hours)</i></p>	<p>PHAR 515: Direct Patient Care - Inpatient IPPE</p> <p><i>IPPE: Inpatient (12 visits x 8 hours (1 day per week) = 96 IPPE hours)</i></p> <p style="text-align: center;">OR</p> <p>PHAR 516: Direct Patient Care - Ambulatory Care/Advanced Community IPPE</p> <p><i>IPPE: Outpatient (12 visits x 8 hours (1 day per week) = 96 IPPE hours)</i></p>	<p>192</p>

P4 APPE Curriculum

Summer, Fall, & Spring	APPE Hours
<p>Core:</p> <ul style="list-style-type: none">PHAR 601: Ambulatory CarePHAR 602: CommunityPHAR 603: HospitalPHAR 604: Medicine	<p>4 APPEs x 6 weeks (960 APPE hours)</p>
<p>Elective:</p> <ul style="list-style-type: none">PMPR 615: AcademicPMPR 616: AdministrativePMPR 617, 618, 619, 621, 623, 624, 625: Advanced Patient Care: Amb Care, Community, Critical Care, Geriatrics, Home Health, Pediatrics, or MedicinePMPR 620: Advanced SpecialtyPMPR 622: Drug Information	<p>3 APPEs x 6 weeks (720 APPE hours)</p>

IPPE & APPE Curriculum

	Fall	Spring
P1	Practice Week (5 visits x 8 hours in one week = 40 hours)	Community IPPE (12 visits x 8 hours in consecutive weeks = 96 hours) OR Hospital IPPE (6 visits x 8 hours in consecutive weeks = 48 hours)
P2	Community IPPE (12 visits x 8 hours in consecutive weeks = 96 hours) OR Hospital IPPE (6 visits x 8 hours in consecutive weeks = 48 hours)	
P3	Inpatient IPPE (13 visits x 8 hours in consecutive weeks = 104 hours) OR Ambulatory Care IPPE (13 visits x 8 hours in consecutive weeks = 104 hours)	Inpatient IPPE (13 visits x 8 hours in consecutive weeks = 104 hours) OR Ambulatory Care IPPE (13 visits x 8 hours in consecutive weeks = 104 hours)
P4	7 APPEs: Ambulatory Care, Community, Hospital, Medicine, and 3 Electives in 6 week intervals	

Total IPPE Hours = 376

Total APPE Hours = 1680

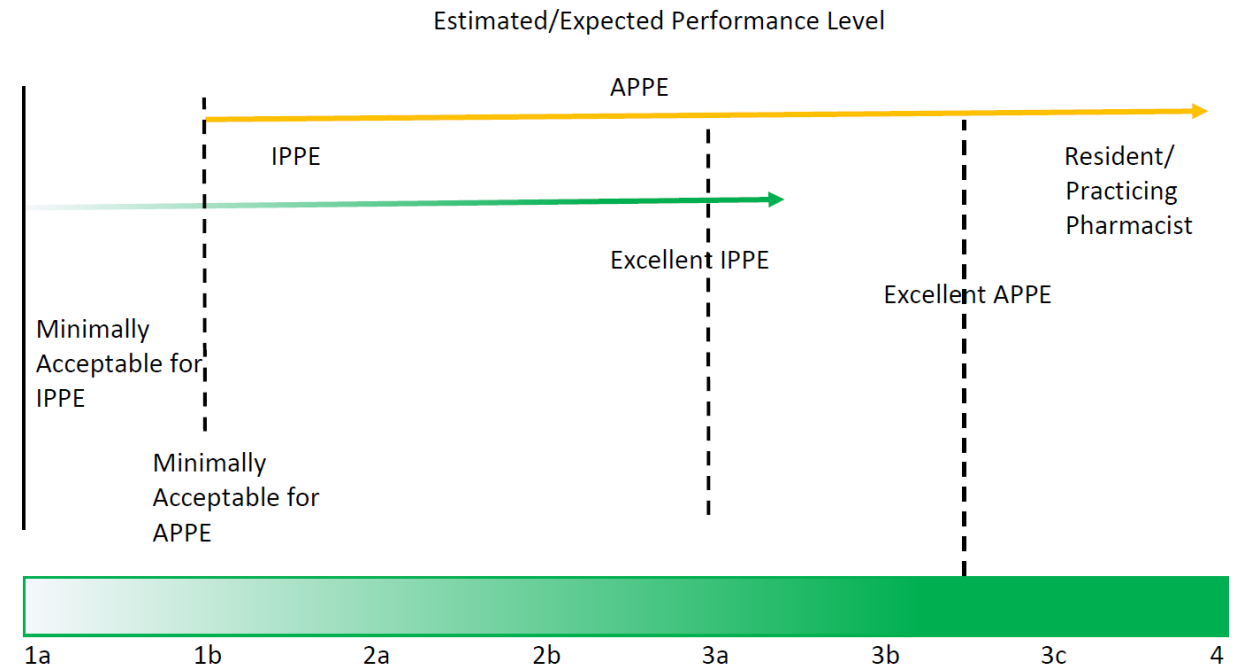
Mode of Assessment

Performance

- Entrustable Professional Activities

- Patient Care Provider
- Interprofessional Team Member
- Population Health Promoter
- Information Master
- Practice Manager
- Self-Developer

- Scale: Level of Entrustment



Mode of Assessment

Professionalism

- **Domains**
 - Reliability, Responsibility, and Accountability
 - Integrity and Respect
 - Lifelong Learning and Adaptability
 - Teamwork and Relationships with Others
- **Scale: Level of Expectation**



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