

I. Description of Foundational Knowledge: Foundational knowledge is taught throughout the curriculum in the P1-P3 years. It provides a foundation for, and is integrated into, subsequent courses throughout the curriculum, particularly the Therapeutics course sequence, Pharmacy Practice Skill Development I-III, as well as the IPPE and APPE experiences. Foundation/core knowledge is *initially* introduced in 18 courses in the 3 areas noted below.

<i>Biomedical/Pharm Sciences</i>	<i>Social/Behav/Adm Sciences</i>	<i>Clinical Sciences</i>
Prin Pharmacol/Immunology	Pharmacy Practice	Pharmacy Practice
Pharm Calculations	Intro US Health Systems	Intro US Health Systems
Metab/Mol Biol/Pharmacogenomics	Prin Interprofess Coll Practice	Ther Non-Rx Meds
Ther Non-Rx Meds	Biostats/Research Methods	Ther I
Fund. Pharmaceutics	Evidence Based Pharmacother	Pharm Prac Skills Development
Ther I and III	Prof. Dev Seminar Series	Clinical PK
Drug Delivery Systems	Pharmacy Ethics	Intro Clinical Applications
Biostats/Research Methods		Evidence Based Pharmacother

II. Integration of Foundational Sciences: A primary example of the integration of foundational sciences is the Therapeutics course sequence which begins in the 2nd semester of the P1 year and encompasses 5 courses ending in the last semester of the P3 year. These system-based therapeutics courses have integrated physiology, pathophysiology, pharmacology, medicinal chemistry and pharmacotherapy for each disease entity. Importantly, these lectures are given by a pharmacologist, medicinal chemist and clinical pharmacist in a team-taught approach. Other examples include the coordinated effort of Introduction to US Health Systems (P1) and Practice Advancement I and II (P3) in the areas of patient safety, healthcare quality, public health, informatics, practice management and practice development/advancement. Moreover, Clinical Application of Pharmacogenetics in the P3 year builds upon principles of molecular biology and pharmacogenomics taught in the Metabolism, Molecular Biology and Pharmacogenomics course (P1) and further expands on the pharmacogenomics knowledge and applications within various disease states and therapeutic areas.

III. Evidence of Foundational Knowledge: An APPE-Readiness assessment plan has been implemented to ensure student competency in College learning objectives prior to entering APPEs. For standardized national exams, the College has performed between the 57th and 75th percentile for the PCOA total score during the last 3 years. Analyzing trends, the performance on the PCOA in 2020 was a significant drop from previous years. The JLWCOP has had a higher pass rate on the NAPLEX than the national average in four of the past five years with the exception being 2019. In addition, the JLWCOP has maintained a 95.4% average pass rate on the MPJE over the past 3 years. This is well above the national and state averages during this time period.

IV. Interpretation of AACP Survey Data: Overall, between 90-98% of students, alumni and preceptors agree with the statement that pharmacy graduates of the JWCOP can evaluate scientific literature and apply knowledge from the foundational pharmaceutical, biomedical, social/behavioral and clinical sciences to the provision of patient care.

V. Notable achievements: a) implementing a “boot camp” for entering P1 students, b) hiring an adjunct medicinal chemist, c) creating a year-long interprofessional education course with the College of Medicine.

Standard 2: Essentials for Practice and Care Executive Summary

The program imparts to the graduate the knowledge, skills, abilities, behaviors, and attitudes necessary to provide patient-centered care, manage medication use systems, promote health and wellness, and describe the influence of population-based care on patient-centered care.

Key Elements:

2.1. Patient-centered care - The courses within the required didactic curriculum have been structured to provide students with the knowledge and skills to optimize patient-centered care as an integrated member of the healthcare team. Discussed in detail are Pharmacy Practice 1, Skills lab series, Clinical application series, and references to standards covering IPE, IPPEs, and APPEs.

2.2. Medication use systems management – Medication use systems management is threaded throughout the didactic and experiential curricula. Discussion of curriculum providing experience in MUE with a specific focus on introduction to US Healthcare Systems (P1) and Practice Advancement I and II (P3). Also includes an IPPE discussion. Had a slightly lower survey score in this area however the new curriculum addressed this and this is discussed within this section of the standard.

2.3. Health and wellness – The role of pharmacist in the promotion of health and wellness is integrated throughout the curriculum. Early in the curriculum both the PPSD course and the Nonprescription Therapeutics Course provide students with skills to promote health and wellness. The therapeutics sequence weaves in health and wellness promotion as appropriate for the topic discussed.

2.4. Population-based care – The role of practice guidelines is integrated throughout the curriculum. Each of the Therapeutics courses utilize current guidelines for discussion of treatment options. The clinical applications course requires students to use published practice guidelines to help determine the best therapeutic plan for patient cases. This foundation is built upon during experiential rotations, where students on their APPE rotations must apply clinical guidelines and information from primary literature to individual patient care.

Notable achievements, innovations, or quality improvements - Some innovations that are being used in the curriculum related to this standard are the PPCP module in PPSD as well as the incorporation of OSCEs for students to simulate their skills.

Standard 3 Approach to Practice and Care Executive Summary

- I. **Approach to Practice and Care:** The approach to practice and care (standard 3) is integrated throughout the curriculum; each course contributes to at least one element of standard 3.

Table 1. Selected Examples

3.1 Problem Solving	PY1: Principles of Pharmacology and Immunology -calculate ED50; NonRx Ther -Interview, assess, triage and determine whether a patient is a candidate for self-treatment with OTC PY2: Biostatistics and Research Methods/Evidence-Based Pharmacotherapy -critically evaluate scientific literature and make individual and population-based pharmacotherapy decisions; Intro to Clin App -fundamental, background skills for pharmacists to care for complex patients. PY3: Practice advancement -develop a business plan; Clinical App I, II -develop problem-solving skills, specifically the ability to identify and resolve medication related problems and make patient-specific pharmacotherapy decisions. PY1-PY3: Therapeutics Sequence -integrate basic sciences with patient care; apply knowledge, skills, and attitudes to the patient care environment. PY4: APPEs -students think critically, solve medication-related problems, and resolve other patient care issues.
3.2 Educator	PY1: Pharmacy Practice -counseling skills PY1-PY3: Skills Lab -counseling and education; OSCEs ; IPPEs -counsel patients; CoCA -participate in education activity; PREP -educate patient. PY4: APPEs -educating patients and healthcare providers, CAPSTONE presentation, Therapeutic Controversy Presentation.
3.3 Patient Advocacy	PY2: Ethics -advocate for patient authority; PDSS -year 3 theme is advocacy. PY1-PY3: PREP -advocate for the patient; Skills Lab -simulated activities for students to gain experience advocating for patients' best interests; CoCA -participate in advocacy activity.
3.4 Interprofessional Collaboration	PY1: Pharmacy Practice -interprofessional communication, SBAR; Principles/Applications in Interprofessional Communication —IPEC competencies, teamwork. PY1-PY3: IPPEs -collaborate with other healthcare providers; CoCA -participate in IPE activity PY4: APPEs -collaborate with other healthcare providers
3.5 Cultural Sensitivity	Orientation-workshop on DE&I PY1: Pharmacy Practice -cultural competency, health literacy, SDOH, health disparities PY1-PY3: IPPEs -serve diverse patients; CoCA -participate in cultural sensitivity activity; Therapeutics Sequence -cultural sensitivity topics integrated in cases; transgender care. PY4: APPEs -serve diverse patients.
3.6 Communication	PY1: Pharmacy Practice -counseling skills, interprofessional communication, motivational interviewing, written communication, medication therapy reviews. PY2: PREP -poster presentation. PY1-PY3: Skills Lab -communication skills; OSCEs ; IPPEs -counsel patients, formal presentation and IPE communication. PY4: APPEs -patient counseling, formal presentations, therapeutic controversy and interprofessional communication.

- II. **Assessment:** The JLWCOP uses Examsoft® for most summative assessments, and questions have been categorized to standard 3. Aggregate data show student achievement of standard 3 (**Table 2**). In general, students perform very well in terms of patient education and communication; OSCE and skills lab data show strong student performance. Students who completed the PREP project reported that the project helps them develop as patient advocates.

Table 2. Outcome Assessment Data

Standard	AY 19-20		AY 20-21		Aggregate	
	# Items	Average %	# Items	Average %	# Items	Average %
3.1	486	76.6	491	82.2	1570	77.4
3.2	92	91.4	253	92.2	444	91.6
3.3	21	91.6	45	93	88	92
3.4	9	87	69	84.7	85	86.7
3.5	-	-	4	93	17	86.1
3.6	210	89.9	397	90.9	822	90

- III. **Interpretation of AACP Survey Data:** The AACP Survey results from 2018-2020 were favorable and comparable to national averages on the majority of items related to Standard 3. The only 2 items (identify cultural disparities and recognize and address cultural disparities in access to and delivery of healthcare) was lower in the alumni survey.

Item	Graduating Students (Agree/Strongly Agree)	Preceptors (Agree/Strongly Agree)	Alumni (Agree/Strongly Agree)
Problem Solver (questions 12, 19 and 22 respectively)	95.9-98.8%	90.5-94.1%	93.4-100%
Educator(questions 13, 20 and 23, respectively)	97.6-98.9%	97.6-97.8%	93.4-97.1%
Advocate (questions 14, 21, 24)	96.9-100%	91.7-93.7%	92.1-100%
Collaborator (questions 15, 22, 25)	95.3-97.9%	92.5-96.4%	93.4-94.3%
Cultural Sensitivity (questions 16, 23, 26)	87.2-95.3%	79.8-82.2%	80.0-92.1%
Cultural Sensitivity (questions 17, 24, 27)	87.2-94.1%	79.7-80.9%	80.0-92.1%
Communicator (question 18, 25, 28)	96.8-100%	92.6-92.8%	93.4-97.2%

- IV. **Notable achievements:** a) Higher Education in Diversity Award; b) Principles of Interprofessional Collaborative Practice and Applications in Interprofessional Collaborative Practice have garnered national recognition; c) Use of EHR-Go® electronic charting technology; d) revamped PPSD Skills Lab course series; e) certificate programs such as Leadership, Pediatrics, Drug Development, Caring for the Underserved.

Executive Summary for Standard 4: Personal and Professional Development

4.1 Self-awareness: Self-reflection is a key component of our curriculum. Standardized scoring rubrics exist within multiple courses with in-person or written feedback provided. Self-awareness activities are embedded in eight P1, eight P2, seven P3 courses, and throughout the experiential program. Select examples include:

- P1 students reflect on recorded counseling, interprofessional shadowing experiences, and OSCEs in Pharmacy Practice Skills Development I. Reflections also occur in their Interprofessional Collaborative Practice, PDSS and Pharmacy Practice courses.
- P2 students self-assess and assess their peers in Introduction to Clinical Applications course. They complete a StrengthsFinders assessment, define their leadership style, develop a leadership legacy, and identify needed leadership development and write a reflection paper in Pharmacy Ethics.
- P3s reflect on the pharmacist patient care project poster and on their Skilluate counseling videos. They also self and peer assess in Clinical Applications I and II.
- P1-3 students complete reflections on 5-6 activities per semester which are reviewed/evaluated by faculty advisors using a standard rubric who follow-up with students to provide formal feedback.
- P4s conduct a pre-APPE self-assessment, a minimum of 3 learning experience reflections, and a self-assessment of learning at the end of each rotation, including a question on self-assessment ability enhancement as well as an evaluation reflecting on the interprofessional nature of the completed rotations.

4.2 Leadership: The College has numerous opportunities for students to develop and demonstrate leadership, which is consistent with the College's mission to "Develop progressive pharmacy practitioners and researchers to lead the evolution of healthcare." In the professional seminar series, students individually perform the self-awareness activities above in developing their leadership philosophy. This includes short and long-term plans for professional leadership growth. Students submit CoCA field encounters documenting one leadership activity during P1, P2, and P3 years. Students are required to participate in the P3/P4 mentoring program. P3 students submit field encounters, which are reviewed by P4 students who provide feedback and assess the growth of their P3 students over the year.

4.3 Innovation and entrepreneurship: A team-based business plan project requires students to develop an innovative pharmacy practice model. The business plan was slightly modified in the new curriculum to span both the Fall and Spring semesters in Pharmacy Practice Advancement I and II. A recitation was added to the P3 fall semester that includes a presentation modeled after the TV show 'Shark Tank' – this teaches students the art of pitching and selling a business to different stakeholders. At the end of the fall semester, the business plans are provided to the Masters in Pharmacy Leadership students for review and feedback. In the co-curriculum, individuals were given the opportunity to present their business plans to community partners, as well.

IPHO hosts the VIP case competition every year which provides verbal feedback to participants. Other students have individual experiences which are approved as Innovation and Entrepreneurship co-curricular activity (CoCA), including starting new organizations, revising processes to move activities remotely, writing a creative publication, etc. A required research project along with a research elective occurs in the P4 year.

4.4 Professionalism: Professionalism is incorporated early in the curriculum. Beginning with orientation, students are provided with information about the College's Student Academic Conduct Standards Policy and Professional Code which includes guiding principles, responsibilities of the college community, violations, and process for handling violations. They work in teams to create their own professional creed which is read at their White Coat Ceremony.

- P1 students work with peers at the college of medicine in the Principles in, and Applications in, Interprofessional Collaborative Practice courses. They participate in several seminars in PHRX 7111 and 7112 related to professionalism, professional development, and providing constructive feedback in course evaluations. They also begin participation in multiple co-curricular, student organization activities and OSCEs.
- P2 students participate in their IPPEs and continue in the professional development seminar courses. Professionalism is a major focus during the IPPEs and is reflected in the IPPE assessment completed by the preceptor.
- P3 students present their patient care project poster and refine their CVs.
- P4 students participate in mock interviews, mentor P3s in the peer mentoring program and participate on interdisciplinary teams. The P4 APPE evaluation form contains 10 Likert scale assessments on professionalism. Throughout our program, students are given the opportunity to serve on various College committees including the Honor Council.

Standard 5: Eligibility and Reporting Requirements

The University of Cincinnati (UC), a public, research-intensive university, and its two regional campuses, are accredited by the Higher Learning Commission (HLC). First granted accreditation in 1913, the most recent reaffirmation of accreditation occurred in the 2018-19 cycle. No deficiencies were cited.

The James L Winkle College of Pharmacy is an autonomous unit within UC. UC's overall leadership structure is highly decentralized and provides the colleges and the college leadership with more autonomy than at many universities. The college may develop operational policies and procedures, set student admission standards and markers for progression, evaluate staff and faculty, oversee human resources, develop tenure, promotion and reappointment criteria, and develop and update its own bylaws. The organizational structure of UC and the Office of the Provost defines efficient and effective lines of authority and responsibilities that promote interaction within UC for the purpose of fulfilling the vision, mission, and goals of the college.

The college is led by Interim Dean Pam Heaton, who serves as the chief administrative and academic officer of the college and is responsible for ensuring that all accreditation requirements of ACPE are met. Dr. Heaton assumed this role in December 2020 after Dr. Neil MacKinnon, who served as dean for 7 years, was appointed as Provost at Augusta University. The faculty of the college have representation on the University Faculty Senate, and staff have representation by at large members on University Staff Senate, recently created in 2019. In addition, the faculty of the college serve on several other university committees. There are many examples of where college faculty have had a large impact on university activities and initiatives.

Funding to the college is determined by the university's performance-based budgeting (PBB) model. The model, first implemented in FY2010, sets revenue targets for each college each year, which includes a reallocation. The university will be moving to a new margin-based financial model, but this is not yet implemented.

Notable area: Since the last accreditation cycle where the college has especially benefited from central financial support is for new and renovated facilities. The college was housed in two very dated buildings which were connected to each other: the Health Professions Building (HPB), which housed primarily classrooms and offices and was built in 1919, and Wherry Hall, which housed primarily research labs and was built in the 1950s. The university renovated labs and offices in the Medical Sciences Building (MSB) for the college which cost about \$5 million and was paid for by the university. The Division of Pharmaceutical Sciences relocated to this space in 2016. In addition to the renovated labs and offices, the space also includes a new conference room, student spaces and a new classroom. In 2017, Kowalewski Hall (HPB was renamed Kowalewski Hall in 2015 in honor of former Dean Joseph Kowalewski) reopened. This \$34 million renovation was financially supported by the State of Ohio and UC.

Standard 6: College or School Vision, Mission, and Goals

In February 2018, after several months of development, UC's new 10-year strategic plan, *Next Lives Here*, was approved by the Board of Trustees. While *Next Lives Here* was developed about a year after *We are Pharmacy: Rx for the Future*, the college's plan is in alignment with both UC's strategic plan and the AHC strategic plan.

The strategic plan, developed in 2016 and further described in Standard 7, is divided into four pillars: Community Engagement and Outreach; Professional Excellence; Viability; and Research and Scholarship. Key strategies for community engagement and outreach include engaging the college's alumni and partners to serve and educate the urban community. Additionally, the college seeks to engage alumni and partners to advance the teaching and practice mission. These strategies merge with strategic pillar two, professional excellence, and guides many of the college's educational endeavors. Strategic initiatives under this pillar include the implementation of innovative teaching and assessment methods, ensuring the curriculum aligns with the evolution of practice, increasing interprofessional training and collaboration, expanding real world experiences and practices, embodying equity and inclusion and increasing PharmD mentorship opportunities. Additionally, this strategic pillar includes advancing diversity and inclusion initiatives. For the past three years, the college has won the Higher Education Excellence in Diversity award, showcasing the colleges commitment to diversity and inclusion. This not only aligns with the college's strategic plan, but also with the University's Next Lives three key values of Inclusion, Innovation and Impact. The strategic pillar for research and scholarship guides the research enterprise. The college seeks to increase research productivity, enhance the quality of the graduate research program and strengthen the core research areas of the college. For all pillars, there are multiple action items implemented to meet these initiatives.

Soon after its development in late 2016 and implementation in early 2017, there was considerable communication about the college's mission, vision, and goals to both internal and external stakeholders. Hard copies of the summary of the new strategic plan were prepared and distributed at college events. The plan was added to the college's redesigned website (<https://pharmacy.uc.edu/about/strategic-planning.html>).

Several examples are provided to show the progress made since 2017 and how these initiatives advance the mission. These examples include the growth in the residency program, residency teaching certificate program, continuing education program, research-based graduate programs and the online graduate programs and certificates.

Notable area: The development and use of the annual scorecard is an effective way to monitor progress towards strategic goals. Receiving the HEED Award for 3 years showcases our commitment to diversity.

Standard 7: Strategic Plan

The college used a broad and inclusive process to develop the current strategic plan, *We Are Pharmacy: Rx for the Future*. The college partnered with M E Clarke Consulting to launch the strategic planning process in January 2016. The college conducted a strength/weakness/opportunity/threat (SWOT) analysis and conducted a comprehensive environmental scan. Simultaneously, the college collected 215 surveys from key stakeholders across the college to get their input on the plan.

A visioning retreat was held in May 2016^h with representation from all the college's key stakeholders. The new vision, mission, objective, and strategic priorities were approved by the college's Board of Advisors in June 2016, the college's Executive Committee in August 2016, and unanimously by the college's faculty at the August 2016 Full Faculty meeting.

The college's mission is to develop progressive pharmacy practitioners and researchers to lead the evolution of healthcare. The four pillars of the strategic plan directly align with this mission. In order for students to become progressive pharmacy practitioners and researchers, to lead change and to positively impact the healthcare of patients, the college must be engaged with the community, provide an excellent educational experience and remain financially viable. For example, with the recent need for certified practitioners to immunize patients with the COVID vaccine, the college has have worked with partners to ensure that students are available to aid in this important effort.

With the new direction in place, several action planning sessions followed. By the end of fall 2016, operational plans were put into place, developed by the executive committee with input from faculty, for all four strategic priorities: Community Engagement and Outreach, Professional Excellence, Viability, and Research & Scholarship. Examples are as follows.

Community Engagement and Outreach: One significant effort under this goal has been the development of a certificate program in caring for the underserved.

Research & Scholarship: One significant effort under this goal was to develop a new funding source to help faculty with pilot projects and bridge funding. In early 2020, with the help of a lead gift, the College established the Research and Innovation Fund for the college through the UC Foundation.

Viability: One of the goals under the third strategic direction is to improve recruitment and retention. Under this goal are several initiatives, such as increasing the college's enrollment and launching new programs. The college has launched several new programs since 2017 to accomplish this goal. One of these is a new online MS degree in pharmacogenomics and personalized healthcare.

Professional Excellence : One of the goals under the fourth and final strategic direction is to ensure curricular alignment with evolutions in the field. Under this goal are several initiatives, including implementing a new curriculum for the PharmD program.

Standard 8: Organization and Governance

The Winkle College of Pharmacy maintains a clearly defined organizational structure governed by the College bylaws and the Collective Bargaining Agreement between the UC Chapter of AAUP and UC. The president is Dr. Neville Pinto, provost is Dr. Kristi Nelson. Interim Dean Pam Heaton reports directly to Dr. Nelson. The college deans have a significant role in university governance providing input into all academic and financial decisions through the Council of Deans. The Associate Deans of the College of Pharmacy, and other members of the faculty participate on several other university committees that are involved in policy or operational procedure development.

The members of the college's leadership team have credentials and experience that have prepared them for their respective roles and collectively have the needed backgrounds to effectively manage the educational program. The college is effectively organized such that it can meet its mission and goals. Shared governance is respected, and all faculty members have a voice in decision making. The role of faculty in shared governance is further clarified in the Collective Bargaining Agreement between the UC chapter of AAUP and UC. The college has a Board of Advisors (BOA), which supports the overall mission.

The overall governing committee of the College is the Executive Committee, which meets monthly. It is comprised of the deans, chairs, business director, a faculty representative from each division, and several director-level positions. The faculty representatives who sit on this committee are elected to the role by the faculty in their respective divisions. It is their responsibility to communicate information between the divisions and the committee.

Consistent with college bylaws, the dean delegates responsibility to college standing and/or ad hoc committees in consultation with the executive committee. The standing committees, as outlined in the bylaws, are responsible for the organization and running of the college. Committee assignments are made at the start of fall semester with input from the faculty and their division chairs. Policies often originate from standing committees or may come from administration. These policies are brought to the division meetings for discussion and the executive committee for approval before going to All Faculty for a vote.

The College follows the emergency plans of the university which are described at: <https://www.uc.edu/about/publicsafety/emergencymanagement.html>. The Kowalewski Hall emergency plan can be found here: <https://www.uc.edu/about/publicsafety/emergencymanagement/emergency-plans/kowalewski-hall-emergency-plan.html>.

Notable: The college created a director-level position for assessment at the College and created a new Associate dean for Research and Innovation position which strengthened the research enterprise.

Standard 9: Organizational Culture

The college is committed to providing an environment and organizational culture in which all stakeholders of the college exhibit professionalism. The college culture promotes accountability and mentoring for students, faculty and staff, to promote a harmonious culture. The Professional Code of the College, approved by the faculty in 2015, and the University of Cincinnati Student Code of Conduct, outlines behavioral expectations as it pertains to being a faculty, staff or student member of our College Community.

The college fosters harmonious relationships. The college holds a faculty retreat at least once a year, which allows for faculty to interact and communicate which fosters unity. At all faculty meetings, faculty present about their research or practice which allows faculty to know one another better.

The College places significant emphasis on recognizing and celebrating student leaders and is committed to the development of future practice leaders. Student leaders who demonstrate exceptional leadership skills are recognized by peers, faculty, and administrators for induction into Phi Lambda Sigma, the Pharmacy Leadership Society. The College fosters leadership by recognizing outstanding student leaders through the scholarship and award programs. In addition, our Pharmacy Leadership Certificate Program allows students to develop leadership skills, which help set them apart from other candidates seeking employment or post-graduate training and can subsequently pursue an MS in Pharmacy Leadership post-graduation.

The college has long-standing practice partnerships with a variety of institutions across the city of Cincinnati and surrounding areas. UC Health has been an enduring partner that provides world-class practice settings for faculty and students. Five full-time faculty provide internal medicine, infectious disease, psychiatry, oncology and pain management services. The college also maintains active partnerships with The Christ Hospital, St. Elizabeth Healthcare and St. Elizabeth Physicians, Kroger and Miami Valley Hospital, placing an additional 6 faculty at these locations.

To advance the profession of pharmacy, several faculty of the college have established robust research partnerships with the college's practice sites. The college frequently collaborates in research endeavors with other colleges at UC including College of Medicine, College of Arts and Sciences and College of Engineering and Applied Science.

The college has created several important collaborations to advance the academic mission of the college: Interprofessional Education (IPE) Course, Certificate in Underserved Populations, University of Cincinnati Student-Run Free Health Clinic, Institute for Healthcare Improvement Open School, and Medical Volunteers of UC (MedVoUC).

The College maintains its dedication to an integrated, team-taught curriculum. One of the goals of the curriculum is to ensure scientific and clinical principles are connected in the context of their corresponding foundation or application. Currently, several courses are integrated and team-taught across college divisions and disciplines. Additionally, over 30 faculty within the college have collaborated for the past 20 years on the Patient Relationship Enhancement Process (PREP).

Standard 10 Executive Summary

The James L. Winkle College of Pharmacy is a 4-year professional program of 135 credit hours including required core and elective courses, delivered over a minimum of 4 academic years of full-time study. The curriculum includes a required minimum of 7 professional elective credits, 339 contact hours of IPPE, 1440 contact hours of APPE (960 required and 480 elective). Elective(s) provide an expanded scope into content that complement the core curriculum and address emerging topics in pharmacy practice and/or health care.

The curriculum is overseen through a dynamic collaboration between faculty and administration, including the Curriculum Committee, the Office of Professional Education and Assessment, the Doctor of Pharmacy Assessment Committee, and the College faculty. Committee responsibilities are delineated in the College Bylaws and annual charges. The college has a robust course and faculty evaluation process to ensure the consistency and reliability of student learning and assessment.

The curriculum is designed to develop the knowledge, skills, abilities, behaviors, and attitudes needed to apply the foundation sciences to practice, to provide patient-centered care, manage medication use systems, and promote health and wellness, and to develop skills to effectively solve problems, and to work effectively independently and with a team to provide care. The curriculum is designed to support self-awareness, leadership, innovation and entrepreneurship, and professionalism and is organized to facilitate building of a sound scientific and clinical knowledge base. The curriculum cultivates a strong foundational knowledge of pharmacy practice and builds upon on the foundation to support development of practice skills. The approach to skill development is carefully integrated into a number of course sequences and learning experiences. A sequence of pharmacy practice skills development courses, with the IPPE, introduces and builds on development of practice skills, encourage lifelong learning and innovation in practice. The entirety of the curriculum, course content and delivery, and experiential learnings facilitate the development of students' professional attitudes and behaviors. The college has adopted a professional code, supported by the faculty and the Board of Trustees. Professionalism is embedded in activities throughout the curriculum and is a theme emphasized throughout both core courses and electives in the curriculum.

Performance feedback to students is provided in all didactic courses. ExamSoft is utilized as the primary course assessment management system, although other methods of assessment and feedback are utilized. The *Clinical Applications* course series utilizes an immediate feedback assessment technique (IF-AT). Courses may provide opportunities for feedback with instructors using formative feedback techniques during class time (e.g., Kahoot, quizzes), as well as "low" stakes formative assessments in lower point quizzes or homework

Standards 1 through 4 highlight the teaching and learning methods used throughout the curriculum. Methods include interactive lectures, discussions, laboratories, case studies, student presentations, patient simulations, and experiential rotations. A survey of the faculty highlights the broad application of active learning in courses, that embraces active learning.

The Office of Assessment surveys students at orientation on learning styles, utilizing the Health Professionals' Inventory of Learning Styles (H-PILS) tool. Assessment strategies have evolved over time and range from more NAPLEX style questions (constructed response, hotspot, multiple response and ordered response) and case-based short answers.

The college follows the University of Cincinnati Student Code of Conduct for issues related to academic misconduct. The college has a Two-Strikes Academic Integrity Policy which states that any student found responsible for 2 cases of academic misconduct may be dismissed from the college, following a COP review.)

Summary: The curriculum is contemporary, relevant, and provides adequate content breadth and depth to achieve optional education outcomes. Faculty are expert and engaged in curricular review to insure continual quality improvement. Teaching and learning methods facilitate learning outcomes and address needs of diverse learners.

James L. Winkle College of Pharmacy Standard 11 Executive Summary

The COP has strong relationships with the UC AHC colleges (Medicine, Nursing, and Allied Health) as well as UCMC, CCHMC, and other community partners (St Vincent de Paul, etc.). Our AHC efforts have resulted in a recent national recognition from the *National Academies of Practice with the 2020 Interprofessional Group Recognition Award*. These strong relationships have also served as a foundation for evolving IPE within the COP curriculum. A longitudinal IPE plan has been developed that threads IPE throughout the COP curriculum, defining the level of competency at each stage. Below is a summary of our IPE efforts over the last few years, listed as Pre-APPE, APPE, and Postgraduate.

Pre-APPE IPE: Interprofessional Collaborative Practice (IPCP) is introduced in the 1st semester with one session of the Intro to US Health Systems Course. This is followed with a yearlong experience where pharmacy (COP) and medical (COM) students take a 1-hour IPE course in 1st year spring semester and another in 2nd year fall semester. Students are grouped as “IP Partners” to build long-term relationships. These courses build IPEC competencies at the exposure and immersion levels. The Interprofessional Attitudes Scale (IPAS) is administered before and after the yearlong experience to determine changes in student attitudes.

Complementing these courses are IPE interactions during IPPEs and IP CoCAs. All students are expected to engage with other professionals during their institutional and/or community IPPE (PY2 year). Students complete an IPE survey at the end of each IPPE. The data from these surveys indicate students have high-level access to a number of other professionals as well as some other professional students.

In both the 2nd and 3rd year, IP electives are available to students to work with others throughout the AHC. In each of the first three years of the curriculum, students must also meet one IPE CoCA per year.

In the third year of the curriculum, a required IP event with PA and nursing students is incorporated in the Pharmacy Practice Advancement II Course. PY3-PY4 mentoring program also requires PY3 students to round on an IP team.

APPE: During APPEs, students have extensive involvement with practitioners and students from other professions. For both AY 19-20 & 20-21, students indicated significant interaction with other professions based upon their monthly IPE survey. Eighty percent of the APPEs have physicians, 80% nurses, 70% with NPs, followed by social work (55%), nutrition (43%), PAs (40%) and PT/OT (38%). Acute care and critical care APPEs provide most consistent opportunity for IP interaction, followed by ambulatory care, community, DI and electives. COP students report frequent or occasional interactions with practitioner/students during APPEs with 65%/40% having medicine, 65%/35% nursing, 50%/25% NP and between 20-30%/10-20% having other professions.

Preceptors evaluate APPE students on their ability to effectively collaborate with other professionals. In AY 20-21, over 95% of students were rated as “high” or “complete” trust for IPCP. Students rated with minimal/moderate trust on any APPE were reviewed to assure that they rated higher on other rotations.

The results of the AACP surveys support that, overall, our graduating students feel prepared for IP collaboration and JLW survey results are similar to national averages.

Postgraduate: In postgraduate clinical education, the college coordinates several ASHP accredited residency programs where IP collaboration is required. Multiple practice sites involve a variety of professionals and IP integration is strong in postgraduate training.

Notable Achievements

The creation and implementation of the required IP courses in the 1st and 2nd year of the pharmacy and medicine curriculum has been an accomplishment for establishing the foundation regarding the IP collaboration. Having the 2-credit hour commitment early in the curriculum is valuable for building relationships and IP skills. It continues to be a successful venture and has received much support from both colleges as well as other professional partners. These courses have also served as a platform to promote the importance of IPCP throughout the academic health center and we are poised to expand to other colleges.

Standard 12 – Executive Summary

The Doctor of Pharmacy curriculum requires 128 hours of didactic and experiential coursework and 7 hours of professional electives. The program consists of 3 years of pre-APPE didactic courses, 9 months of APPE experiences and a capstone course in April of the P4 year. In fall 2018, the college began the implementation of a revised and innovative PharmD curriculum. The college utilized four determinants to guide the curricular transformation: evolution of the profession of pharmacy, curricular and programmatic assessment data, alignment with accreditation and licensure standards, and changes to the pre-pharmacy curriculum.

Development and Maturation

As discussed in Standards 1-4 and 10, the college's curricular outcomes utilize the CAPE 2013 Educational Outcomes. These outcomes were ratified by the faculty in 2016 and permeate all course syllabi, where course directors have highlighted for which outcomes their course prepare students. Every item in CAPE maps to at least one course in the professional curriculum. As mentioned previously, the outcome assessment data for CAPE can be seen in the required uploads. The college adopted AACP's core entrustable professional activities (EPAs) in 2019. Appendix 12.6 details the map of EPAs and levels of supervision. Finally, Appendix I topics are revisited as the curriculum progresses (required uploads).

Affective Domain Elements

As described in Standards 3 and 4, the didactic curriculum is rich in experiences that provide the student opportunities to develop competency in the affective domains of standards 3 and 4. Additionally, each CoCA has been mapped to Domains 3.2, 3.4, 3.5, 4.2, 4.3, and 4.4 to ensure students are given opportunities for purposeful activity and meaningful reflection on the impact of CoCAs on their preparation for pharmacy practice (Appendix 12.7). For an overview of the College's CoCA process, please see Appendix 12.8.

Care Across the Lifespan

The curriculum provides both foundational knowledge and skills to optimize drug therapy for individuals, including those at different stages across the lifespan.

IPPEs

The PharmD curriculum incorporates experiential training throughout all 4 years of the program. The goals of the Professional Experience Program (PEP) are to: (1) introduce students to key areas of pharmacy practice which provides a foundation for the classroom and laboratory environment; (2) provide opportunities to apply knowledge gained in the classroom and laboratories to real-life professional practice experiences through a shadow experience in the 1st professional year, an immersive, 2nd year IPPEs in community and institutional settings, a peer mentoring program in the 3rd year and culminating with the 4th year APPEs. Diversity of experiences is a conscientious initiative of the college throughout the IPPE program. Upon completion of the IPPE program, each student goes to 12 unique practice sites prior to starting their APPEs. This provides a great opportunity to compare settings, patient populations, and services to assist them with APPE, residency and career decisions. Quality assurance is supported by the AACP student survey and IPPE course evaluations, student, site and preceptor evaluations, focus groups, surveys, and site visits.

Standard 13 – Advanced Pharmacy Practice Experience (APPE) Curriculum – Executive Summary

The University of Cincinnati James L Winkle College of Pharmacy Advanced Pharmacy Practice Experience (APPE) Curriculum has long been considered one of the strengths of the PharmD program. ACPE Surveys have consistently shown that graduating students, alumni and preceptors have rated the APPE program higher than the national average as it pertains to the opportunity to provide direct patient care, exposure to diverse patient populations, interactions with other health care professionals, and diversity of experiential opportunities. This is achieved through a systematic approach to planning, quality assessment and review.

The APPE program is structured in a manner to meet the requirements set forth in the ACPE standards with regards to pre-APPE readiness, hour requirements and core rotation experiences. In addition, numerous steps are taken to assure customization of the rotation assignments which include career planning, preceptor presentations, individual meetings, 4 elective rotations, and rotation change request opportunities. Historically, students have selected electives in the core rotations of Acute Care and Ambulatory Care. For example, during the 2021/22 school year 67% of elective rotations will occur in core rotation settings which demonstrated the depth of the APPE opportunities.

The College's experiential office coordinates the review of all aspects the experiential program. Since the last accreditation review, there have been a number of unique enhancements to keep the APPE program compliant and the forefront of experiential learning. Some of the accomplishments include:

1. The College worked with the other Ohio Colleges of Pharmacy to modify the state-wide APPE evaluation form. The focus of this effort was to make modifications and verify that the Pharmacist Patient Care Process (PCP) and Entrustable Professional Activities (EPAs) are appropriately evaluated. The form was mapped to the ACPE Standard 13 guidance document, and the "level of trust" for each objective are assessed. This new evaluation form went into effect for the 2019/2020 rotation year.
2. In the Fall of 2020, the College made the decision to transition the APPE rotation grading scale from a "letter grade" scale (A, B, C, F) to Honors/Pass/Fail. Focus groups were held with faculty and non-faculty preceptors, residency program directors and students. These focus groups were essential to carefully consider the impact on student assessment and evaluation, residency candidacy, and academics. The new grading scale was implemented for the for the 2021/2022 academic year.
3. The College also developed an interprofessional self-evaluation form that is completed at the end of each IPPE and APPE rotation beginning in 2019. The new IPE self-assessment has been able to capture how students' experiences on APPE are collaborative with other healthcare professionals and healthcare students.
4. During the 2016/2017 academic year, preceptors from required APPE rotation categories had the opportunity to participate in focus groups dedicated to the comprehensive review of each of the College's required APPE rotations. The purpose of this review process was three-fold: 1) To verify that each rotation category was reflective of contemporary pharmacy practice, 2) To identify and incorporate the PCP and EPAs into each rotation syllabus, and 3) To track the PCP, EPAs and learning outcomes within each required APPE category.

APPE students are required to participate in a research project as well as present to faculty and peers on a controversial therapeutic issue. They also serve as peer mentors to P3 students where the P4 develops key leadership and precepting skills essential towards lifelong learning and practice.

Standard 14- Executive Summary

Standard 14 primarily focuses on student services.

14.1: Protection of student's private information at is relates to FERPA

The College follows UC Policies, and all new employees receive training on FERPA. The majority of our student's records are kept electronically and password protected. Those on paper are kept in locked files within Office of Student Affairs.

14.2: Students are provided with financial aid information and guidance

The College provides access to financial aid information and guidance in collaboration with UC Student Financial Aid Office from admission to graduation. In addition, we offer over 21 different scholarships to students to help defray the costs.

14.3: Students are provided access to health and counseling services. Critical immunizations standards are established

Students are notified and directed to the appropriate resources by the Office of Student Affairs. All resources are offered by University and include services for both physical health and more importantly, mental health. Since 2019, the College has made a concerted effort to provide additional information and focus on mental health via educational programming and stronger connections with University Resources.

Our College utilizes our existing University Health Services to track and manage our immunization requirements.

14.4: Students receive both academic and career advising as part of the curriculum

Besides our current structured student advising program, students have opportunities for mentorship both within and outside the curriculum. Within the curriculum, this occurs during the PY1/PY3 peer mentor program as well as the PY3/PY4 peer mentored IPPE experiences. Outside of the curriculum, a new opportunity exists with BearCat Connect- a LinkedIn type platform where students can connect with interested alumni. As with mentorship- career counseling occurs both inside the outside the formal academic structure. Career fairs, residency showcases and elective courses as well as APhA Career pathways activities and Professional Development Seminar Series provide students with information related to careers in the profession of pharmacy.

14.5: College establishes and implements non-discrimination policies.

Besides following the Universities non-discrimination policies, the College has worked hard to promote an atmosphere of inclusion via co-funded positions focused on diversity, creation and implementation of an Advocates for Diversity Committee, a new College Pledge and DE&I strategic plan outlines action items planned for students, faculty and staff in the coming years.

14.6: College provides accommodations to students with documented disabilities:

The College works closely with the Office of Accessibility Resources to promote full and equal access to accommodation services for students and to educate faculty. In addition, we work to promote access to all learning materials by closely following the University EIT policies and training.

Standard 15: Executive Summary

15.1. Student information – The College or school produces and makes available to enrolled and prospective students updated information of importance, such as governance documents, policies and procedures, handbooks, and catalogs. Information is shared primarily on the website, student handbook, on SharePoint, during orientation (May and August), and in our recruitment brochure.

15.2. The College or School develops, implements, and makes available to students a complaint policy that includes procedures for how students may file complaints within the College or directly to ACPE and the College maintains records of such complaints-The complaint policy is presented during fall orientation for new students including information on how to file a complaint with ACPE. This is also available on our website. Students have multiple venues to provide complaints/feedback including the Voice, Tribunal Student Government (through elected student representatives), Town Hall sessions with the Deans, discussion with their faculty advisor, or directly contacting the Office of Student Affairs. Complaints are filled chronologically on the Voice and discussed at the CAT meetings where action plans are developed. Student feedback is reviewed and action items are delegated to appropriate individuals within the college. Communication regarding complaints/concerns is provided via multiple mechanisms, including the COD reports, Dean’s monthly newsletter, faculty meetings, etc.

Standard 15.3 The College or school develops and implements policies regarding academic and non-academic misconduct of students that clearly outline the rights and responsibilities of, and ensure the process for, all parties involved. Students are presented with the University Student Code of Conduct and Two-Strike Policy at PY1 Fall Orientation. At the end of orientation, students are required to initial a document that indicates the understanding of the policies and the expectation to abide by the Professional Code of the College as well as the Student Code of Conduct for the University of Cincinnati. Throughout the academic year, students can reference the codes or policies through the Student Handbook posted on the student SharePoint site. Additionally, before any assessment utilizing ExamSoft, students must acknowledge the college’s professionalism code. The Associate Dean of Student Affairs acts as the College Conduct Administrator (CCA), oversees the academic misconduct process, and reports findings to the Director of Student Conduct and Community Standards.

Standard 15.4 The College considers student perspectives and includes student representation, where appropriate, in committee, policy-development bodies, and assessment and evaluation activities. Students are represented on many college committees, and their input is highly valued in the College’s decision-making process. The committees with student representation include Admissions Committee, Curriculum Committee, Assessment Committee, Council on Diversity, Graduate Program, and IT. Students are also included in the faculty recruitment process by participating in interviews, search committees, and seminars. To ensure broad student representation on committees, the Associate Dean for Student Affairs reaches out to all students via a survey at the beginning of each academic year to solicit interest in opportunities to serve.

Executive Summary for Standard 16: Admissions

16.1-Enrollment Management: Student enrollment is managed by college administration and is in alignment with available physical, educational, financial, faculty, staff, practice site, preceptor, and administrative resources, and can support up to 96 students per professional year. The College underwent a large-scale renovation in 2016 to update classroom, laboratory and student space.

16.2. Admission procedures – The Admissions Committee has the responsibility and authority for the selection of students to be offered admission. Admission criteria, policies, and procedures are not compromised regardless of the size or quality of the applicant pool. The Office of Student Affairs and Admissions under the direction of the Associate Dean for Student Affairs and Admissions coordinates all activities. The Director of Admissions connects with every applicant throughout the admissions process to ensure early student success. The Assistant Director of Admissions ensures leads all recruitment activities. The Admissions Committee is comprised of a faculty chair, 6 additional faculty members, 2-6 students, and 2 staff from the Office of Student Affairs. It participates in recruitment activities with an emphasis on recruiting underrepresented minorities and is charged with policy and procedure development.

16.3. Program description and quality indicators – The college makes available to the public a complete and accurate description of the preprofessional and professional degree program, accreditation status, and ACPE-required performance information. Quality indicators are available on the College website.

16.4 Admission Criteria - The Admissions Committee employs a holistic process to evaluate candidates for admission. This process and its components are regularly evaluated, and modified when appropriate, to ensure a qualified and diverse student body. Applicants are evaluated based upon objective (overall GPA, Science GPA, PCAT, referring institution) and subjective criteria (evaluated during the admission interview and MMIs) including leadership skills, problem solving/critical thinking skills, verbal, non-verbal, and listening communication skills, conflict management, ability to work in a team, self-awareness, pharmacy motivation, humanistic values, diversity appreciation, service contributions, personal statement, and letters of recommendation. Subjective criteria are scored by faculty who are blinded to the applicant's objective information. All criteria are scored using a standardized rubric and totaled to create the composite admission score. The final decision regarding each applicant is made by the Admissions Team.

16.5 Admission materials – All materials pertaining to the criteria, policies and procedures for candidates seeking admission to the PharmD program are made available on the college website. It provides information on pre-pharmacy education, admission requirements and procedures, an early assurance pathway, deadlines, tuition/fees, transcripts, the interview process, letters of recommendation, application status, and FAQs.

16.6 Written and oral communication assessment – Review of an applicant's personal statement, UC's supplemental essay and letters of recommendation are subjectively scored using a rubric by the Admissions office. Written communication is also assessed as part of the PCAT scoring. The traditional interview, along with 3 MMIs, utilize a rubric to score verbal, non-verbal and listening communication skills.

16.7 Candidate Interviews – All qualified applicants must participate in an on-site (or virtual) interview conducted by two faculty members or a faculty member and practice partner. Interviews are scored before having access to academic information. The goal of the interview is to learn about the student and their abilities in the domains of pharmacy motivation, humanistic values, verbal, non-verbal, & listening communication skills, personal attributes, problem solving ability, community service and leadership. Situational questions and a required question on diversity are also part of the process. Applicants also participate in three MMIs focused on problem solving, empathy and ethics. Current students take applicants on a college tour and answer questions. A wrap-up session concludes the interview. Applicants with a composite score of ≥ 70 are offered admission.

16.8. Transfer and waiver policies – Students wishing to transfer must have a minimum GPA of 2.5 and provide: a cover letter detailing their reasons for transfer, undergraduate and graduate program transcripts, a letter written by the Associate Dean of Student Affairs at current institution stating that the student is in good standing, and completion of a successful interview. Simultaneous curricular review determines appropriate professional year placement with an individualized plan of study.

Standard 17 Progression of Students Executive Summary

- I. Progression Policies:** Policies and procedures for academic progression, remediation, probation, suspension, dismissal, appeal etc. are outlined in the Academic Performance Policy; the Academic Performance Policy is governed by the College's Academic Performance and Hearing Committee (APHC). Policy revisions are approved by an all-faculty vote.
- II. Academic Performance:** The Academic Performance Policy outlines requirements for student progression.
- Students who do not meet the minimum required term GPA (academic warning), cumulative GPA (academic probation), or receive a grade of D+ or lower in a course meet with the APHC; APHC members review the progress of these at-risk students and make recommendations to optimize their success.
 - Students meeting the criteria for academic warning, probation, suspension, and dismissal receive formal notification from the Association Dean of Student Affairs (ADSA) summarizing APHC recommendations.
 - If a student meets the criteria for suspension from the college, the process for readmission is outlined in their letter of suspension.
 - Their right to due process and appeal is outlined in the Academic Performance Policy.
 - Dismissal from the college is a final, permanent separation between the student and the college.
 - Misconduct issues are governed by the Professionalism Committee of the college, and the University of Cincinnati Student Code of Conduct processes are followed.
 - Policies and Procedures for Leaves of Absence are outlined in the [Student Handbook](#).
- III. Early Intervention:** The College has employed an academic advising program that is overseen by the ADSA. An Early Intervention Program for Student Success Policy for at-risk students was developed and implemented in Fall 2020. Students who are having difficulty in more than one course are required to meet with the ADSA to discuss performance and strategies for academic success. Although the Early Intervention Program has only been in place for a short duration, the program seems promising with 50% avoiding remediation in the fall and 96% avoiding remediation in the spring.
- IV. Collaboration with the Admissions Committee:** The APHC identifies students meeting thresholds for academic warning, probation and suspension and has begun collaboration with the Admissions Committee to identify any commonalities and predictors of poor performance (ex. GPA prior to admission, Science GPA, PCAT score, course repetition, etc.). This collaboration allows for the development of and adherence to sound admission criteria and presents the opportunity to develop resources to identify and support at-risk students early in the curriculum.

Our progression process is longitudinal: identify at-risk students at the point of matriculation, provide resources and materials to prepare them for the rigorous curriculum in the summer prior to the first year of study, and implement early intervention strategies to improve academic performance and maintain progression along the continuum of the program.

- V. Assessment:** The college has implemented a successful remediation and progression strategy. Of the students who required remediation between 2017-2020, 69.3% successfully remediated and progressed in the program. The College had 14 students who were unsuccessful in remediation during that time frame, requiring a delay in graduation. The college had two academic dismissals from 2017 to 2020.
- VI. Interpretation of AACP Survey Data:** The College has had excellent on-time graduation rates (93.5-97.9%) for the graduating classes of 2018, 2019, and 2020 which is above the national rate (87.4-87.9%). Attrition rates (4.2-10.9%) have also been below national rates (12.1-12.6%). In the two most recent AACP surveys, 73.1% and 81.7% of faculty agreed/strongly agreed that the college has an effective process to manage poor academic performance of students in 2019 and 2020, respectively.
- VII. Notable achievements:** a) Early Intervention Program; b) Pre-APPE/PCOA Remediation.

Standard 18: Faculty and Staff—Quantitative Factors

The Winkle College of Pharmacy has 34 full time faculty and 4 administrators. The four administrators are Dean, Associate Dean for Professional Education and Assessment, Associate Dean for Student Affairs and Admissions, and Associate Dean for Research and Innovation. Faculty are appointed in one of two departments: The Division of Pharmacy Practice and Administrative Sciences (21 faculty) and the Division of Pharmaceutical Sciences (13 faculty) Two faculty have administrative responsibilities as division chairs. The number of faculty has increased by 10% since the last accreditation. While the number of faculty at the college has increased slightly since the last accreditation visit, faculty perceive that there is not sufficient faculty. Partly, this is due to the inability to hire new faculty for open lines in Pharmaceutical Sciences including a university-wide faculty hiring freeze due to COVID-19. However, our college has sufficient and high-quality faculty members to teach and mentor PharmD students as well as research-based MS/PhD students and three unique part time MS programs. Moreover, the college anticipates receiving new funds from the university to hire new faculty members and 2 staff within the next several months as part of a Strategic Sizing initiative. College faculty precept about 16% of APPE rotations; this represents a slight increase from 14% at our last accreditation.

The college currently has 321 Doctor of Pharmacy students resulting in a student/faculty ratio of 321:38 or 8.5. This is substantially lower ratio compared to our most recent accreditation when our faculty student ratio was 13.4. This low ratio allows faculty to have the capacity to fulfill our mission to develop progressive pharmacy practitioners and researchers to lead the evolution of healthcare and create an exciting future for our students.

Both Divisions assess workload through Annual Performance Reviews (APR). The Division Chairs discuss workload with each faculty member annually to set productivity and professional development goals for the following year. The workload discussion also includes the percent effort for teaching, scholarship, service and practice. In 2015, the college developed and implemented a faculty workload policy.

A notable improvement at the college is the increase in the number and type of staff which has advanced the college. The college's staffing model and total number of staff has changed since the last accreditation visit in 2013. At that time, it was a very centralized staffing model with all the staff working directly in the dean's office. This growth in staff resources was conducted thoughtfully to fulfill the growing needs of the college as described in more detail below. Several new staff positions have been created since 2013, including a second computer user support specialist, the college's first instructional designer, the college's first Director of Assessment and an Assistant Director of Admissions. A fifth newly created position, a grants administrator, was regrettably included in the budget cuts due to COVID-19, along with one of the divisional administrative support positions, as will be described below. The college has actively supported the development of the staff with several staff being reclassified into new roles/titles, as part of their professional growth. Overall, the staff at the college has increased from 8 to 12 since the last accreditation visit, an increase of 50%. While the number of staff at the college has increased in recent years, faculty perceptions about whether there is sufficient staff has decreased from a high of 66.7% strongly agreeing/agreeing in 2016 to 37.5% in 2020. This is due to the current inability to recruit several open lines due to budget cuts. However, the university is currently in the process of allocating additional funds to the colleges based on strategic initiatives to grow the academic mission. If the college is successful in receiving this money, there will be additional funds for several staff members.

Executive Summary - Standard 19: Faculty and Staff - Qualitative Factors

Educational effectiveness: Our college faculty are hired on the basis of curricular needs and the strategic vision of the college. The hiring process is governed by the university policies and those outlined in our college bylaws. Collectively, this ensures that that high-quality, diverse faculty are recruited. Typically, a search committee comprising faculty from both divisions and faculty from other units on campus, is charged with the recruiting process. Candidates with the highest terminal degree and post-graduate training and credentials are sought. New faculty are provided the best possible start-up package, protected time during the initial period and significant mentoring and professional development opportunities. External expertise from adjunct/part-time faculty is required for identified teaching gaps. Regardless of the rank and experience of the faculty, continuous feedback, and evaluations (by students, peers, division chairs and the dean) are provided in order to enhance educational effectiveness. The Faculty Development and Recognition Committee (FDRC) is tasked with all faculty development efforts. Small grants are available for professional development from the Provost's office and from our college. Several university resources such as the Center for the Enhancement of Teaching and Learning (CET&L) provide opportunities for enhancing scholarship of teaching. A majority of our faculty have availed of the workshops/courses offered by the CET&L or UC Office of Research. The college and university have several avenues to recognize excellence in Teaching, Scholarship and Service.

Scholarly productivity: Our faculty are expected to engage in scholarship of both teaching and research. In the last few years there is a substantial increase in our scholarly productivity as evidence by publications in top-tier journals such as Nature, JAMA, Am. J. Health-Syst. Pharm and the AJPE and in external grant funding. As is appropriate for a R1 research institution, the faculty are involved in cutting edge bench, pre-clinical/translational and clinical research. College faculty have attracted substantial extramural funding from federal/national agencies (NIH, NSF, DoD, FDA), foundations, regional sources (Ohio Department of Medicaid) and from various industries. The total external funding for the period of 2018-June 2021 was \$ 9.14 million. The college's impressive achievements in scholarly productivity have resulted in moving up from 33rd to 30th rank in the US News and World Reports ranking of all the national colleges of pharmacy.

Service commitment: Faculty are strongly encouraged to make significant professional contributions at the local, regional, and national/international levels. As such, faculty have made numerous prominent contributions serving in professional organizations, NIH, and DOD study sections, USP and FDA committees. Notable leadership examples include a past president of the American Pharmacists Association, past president of the American Society for Health System Pharmacy, past FIP Scientific Secretary, and Member of the Board of Pharmacy Specialties, various leadership positions within the American Association of Pharmaceutical Scientists and the Society of Cosmetics Chemists.

Practice understanding: Comprehensive efforts are made to ensure that non-practice faculty (primarily those in pharmaceutical sciences division), are aware of the current and future issues/trends in pharmacy practice. The approach primarily includes mentoring at the time of hiring followed by continual efforts during monthly All-Faculty meetings, special workshops, and annual retreats. Efforts also include pairing faculty from the two divisions and opportunities for a pharmaceutical sciences faculty to shadow a pharmacy practice colleague at the clinical site.

Staff Development: As valued members of our college, staff also have access to professional development opportunities. The UC Staff Success Center offers comprehensive professional development workshops, software training and performance coaching services. The administrative heads encourage their staff to avail of development opportunities including tuition remission benefit by the university to pursue advanced educational opportunities.

Policy application: According to our college bylaws, "The Rules of the University and the agreement between the University of Cincinnati and the AAUP, University of Cincinnati chapter, are recognized as governing". This serves as the guiding doctrine in the establishment of our current and future college policies. Accordingly, our policies regarding hiring, performance review, reappointment, tenure and promotion, and retention of faculty and staff are well laid out and applied fairly and consistently.

Standard 20 – Preceptors – Executive Summary

In general, the University of Cincinnati James L Winkle College of Pharmacy identifies and pursues quality sites and preceptors that are diverse in nature and innovative to implement all aspects of the experiential program. The College has identified a vast number of sites in both inpatient and outpatient settings that can fulfill both core and elective requirements of the experiential program as well as achieve the college's mission, goals, and educational outcomes. Currently the college utilizes 431 preceptors (340 serve as APPE preceptors, 50 as IPPE preceptors and 41 as both IPPE and APPE preceptors and 62% serve as residency preceptors at their practice site) in institutional, community and non-traditional practice settings.

The college uses numerous mechanisms to recruit pharmacists as preceptors. The college works especially close with the clinical coordinators, managers and directors of its practice partners to identify new preceptors. Preceptors serve as role models and must demonstrate professional attributes and behavior for students. AACP surveys clearly illustrates that our students consistently agreed or strongly agreed that the college's preceptors consistently model professional attributes and behaviors. Pharmacists comprise 100% of our P1 and P2 IPPE preceptors. Greater than 99% of all APPE rotations are precepted by pharmacists.

Details concerning preceptor orientation, training, and requirements for initiating and maintaining preceptor status can be found in the preceptor manual. The manual also outlines policies and processes, managing difficult students, attendance policies, needle stick policies, etc. The preceptor manual is a strong point of emphasis in the orientation process and is always available to preceptors through CORE-ELMS. Experiential preceptors are extended the opportunity to apply for an adjunct faculty appointment in the Division of Pharmacy Practice and Administrative Sciences in recognition of their precepting/teaching efforts.

Preceptor development training programs are offered routinely through live programming at the college (twice a year), online webinars, and continuously through CEimpact. Preceptors shall complete or have previously completed 3-hours of training related to preceptorship to become a preceptor and complete 3-hours every 3-years to maintain their status (can be college, residency or other professional meeting trainings). The programming for experiential education sessions is driven by the requirements of the experiential office and the desires of the preceptors. Some examples of this have been, "Helping the struggling student", "How to create your rotation syllabus", and "How to conduct a journal club on rotation". The college also uses these programs to provide programmatic updates as well as introduce concepts such as Entrustable Professional Activities, The Pharmacists Patient Care Process, and Diversity and Inclusion training for its preceptors.

The process for preceptor development, education, assessment, training, and collaboration with the experiential office has shown to be extremely effective. All aspects are consistently evaluated very highly and above national averages by both preceptors and graduating students in the AACP surveys on an annual basis.

Standard 21: Physical Facilities and Educational Resources

Physical Facilities and Instructional Technology

Kowalewski Hall (KH) was completely renovated in 2017. At over 65,000 square feet (SF), this 34 million dollar project resulted in exceptional physical facilities and instructional technology for students, staff and faculty. The college uses Canvas as its Learning Management System. The college is also provided multiple tools by the University including Echo360 for lecture recording and upload, Kaltura for media content creation and Webex/Microsoft teams for online instruction, meetings and office hours.

Classroom Space

The college has 4 large classrooms (KH110 capacity 120, KH140 capacity 214, KH301 capacity 82 and KH310 capacity 100) that are equipped to provide an optimal learning environment. KH110 is the college's team-based learning classroom. The room contains 20 tables with a monitor at each table that students can connect to through Solstice technology. This enables a student to share his/her screen with the team and allows the instructor to share his/screen with the class. At over 4,000 SF, KH140 ("auditorium") is the college's flagship instructional classroom. Equipped with state-of-the-art audio and visual technology, this classroom has several defining features.

Pharmacy Practice Skills Development Laboratories and Simulation

The J. Richard Wuest Family Pharmacy Practice Skills Center ("Skills Center") is home to the Pharmacy Practice Skills Development (PPSD) course series. The center was recently renovated and consists of a model community pharmacy stocked with prescription and nonprescription inventory, model hospital pharmacy equipped with a USP <797> compliant clean room and 4 small group learning rooms. The Skills Center is well appointed with instructional and assessment technology. In addition to simulated activities performed in the skills center (e.g. code simulation), the college partners with the College of Medicine for simulation needs around IPE didactic coursework and OSCEs.

Meeting, Office and Research Space

The college has ample meeting and office spaces to support faculty, staff and student meetings and accomplish responsibilities. Research space, equipment and support are adequate to meet the needs of the research enterprise.

Educational Resource Access

Currently the Health Sciences Library (HSL) has subscriptions or shares subscriptions to the following pharmacy or pharmacy-related databases: ClinicalKey, Clinical Pharmacology, Cochrane Library, DynaMed Plus, EHR Go, Embase, LexiComp, Natural Medicines, Stahl's Essential Pharmacology Online, SciFinder, Up to Date and Scopus. The library has purchased or subscribed to electronic texts or e-Book collections in support of the pharmacy curriculum, including AccessPharmacy, AHFS Drug Information, APhA PharmacyLibrary, Handbook on Injectable Drugs, PHARMACEUTICALnetBASE and Pharmacology World. In addition, the UC Libraries hold over 600 Pharmacy, Therapeutics and Pharmacology journal titles.

Librarian Expertise Access

To provide the best support for the college, a HSL librarian serves as the primary liaison. The liaison librarian is a standing member of the college's curriculum committee. The librarian is also available to assist students, faculty, and preceptors with the effective use of library resources.

Standard 22 – Practice Facilities – Executive Summary

The University of Cincinnati College of Pharmacy is extremely fortunate to be located close to, and affiliated with, an Academic Health Center (AHC). Most notably, the University of Cincinnati Medical Center, the Cincinnati VA, Cincinnati Children's Hospital, and Shriners' Hospital are all located within walking distance from the college. Twenty-one percent of all IPPE and 31% of all APPE rotations occur within the AHC. The AHC creates an interprofessional environment where students actively participate in the care of the patient in a variety of acute and chronic settings with other Health Care Providers (HCP's) and HCP students. Currently, 42% of APPE rotations occur at sites where student pharmacists are directly interacting with medical students. Students participate with a multitude of HCP's and HCP students on a regular basis throughout their IPPE and APPE experiences in the form of patient rounds, treatment teams, clinics and day-to-day care of the patient as well as interprofessional projects and research.

The vast majority of sites used for the experiential program are located in the Greater Cincinnati Area (Southwest Ohio, Northern Kentucky, and Dayton). Using exclusively sites close to campus affords the College the luxury of using sites that have been vetted, demonstrated as effective learning sites and the ability to use them consistently. Most preceptors have a long-standing relationship with the college. Student satisfaction with the surplus of core rotations and extensive elective options is evident by the AACP survey results which show that 98% of students felt there were sufficient APPE rotations to allow them to select rotations that aligned with their professional and career goals.

The College continuously seeks sites and preceptors that provide innovative and contemporary practice models. In recent years the college has hired new faculty and partnered with key constituents to further provide students with new concepts and practice capabilities, most noticeably by:

- Partnering with Kroger and St Vincent de Paul to establish accredited community practice residency programs. The college has also partnered with Medication Managers (long-term care), Five Rivers Health Centers (Ambulatory Care) and Walgreens (Specialty Pharmacy) to establish accredited residency programs which serves to enhance pharmacy services at the sites, including health and wellness programs and MTM services.
- Placed new faculty at St Elizabeth Physicians, University of Cincinnati Medical Center and St Elizabeth Healthcare. These faculty positions promoted an expansion of innovative clinical services in population health, pharmacogenomics and pain management that serve as didactic and clinical learning opportunities for students.

The college has developed a strategic process to assure adequate practice facilities support all aspects of the experiential program and the curriculum. The strategic process developed to achieve these requirements involved the identification, development, and maintenance of unique and diverse practice environments, as well as mechanism to assure their quality. The experiential sites used by the college must meet criteria and standards for pharmacy professional experience rotations as established by the Experiential Office as well as have an affiliation agreement in place.

The quality assurance process for the professional experience program is extensive and involves the Experiential Office, faculty, preceptor and student evaluations and focus groups. This has resulted in multiple unique preceptor training programs, such as diversity, precepting techniques and residency application process mentoring. In addition, student learning outcomes have been impacted by the quality assurance process.

Standard 23 – Financial Resources

The university utilizes a budgeting process called responsibility or performance-based budgeting (PBB). Each year, colleges are expected to grow revenue year over year. If this expectation is met (called meeting the threshold), additional funds are added to the college's permanent funds coming from the university. Each year from 2013 to 2020, the college exceeded the PBB threshold and was able to incrementally increase the permanent budget. The general funds coming to the college from the university includes money for salary and fringe benefits, operating expenses, and graduate student stipends. Additionally, the college supplements the general funds with the interest from of endowments or spendable funds (called local funds) generated through grants, gifts, contracts, donations, and endowment earnings.

The COVID-19 pandemic started in February/March 2020 and had its own unique set of budget challenges. Given the great uncertainty experienced by the University, the University requested large budget cuts which resulted in the college submitting a letter to ACPE in August 2020. However, as the situation stabilized, the college did not have to take cuts as large as outlined in the letter. The college did take an 8% permanent budget cut, but we were able to successfully navigate that reduction.

Since the last accreditation, there have been two tuition increases. There was 4% overall increase in the Summer 2017, and the most recent increase, a 22% increase, occurred in Fall 2019. Each time a decision was made to increase tuition, an analysis of tuition costs among fellow state schools and peer schools was undertaken. Each time, it was determined that the college's tuition rates were low; indeed, of the 7 schools in Ohio, we are the 6th least expensive.

The quality of the college's PharmD program is excellent. In the past couple years, we have experienced a decline in PharmD enrollment, which is also occurring nationally. It is important to note that despite the decreased revenue, student experience remains largely unimpacted. NAPLEX examination and MPJE pass rates remain significantly higher than the national average. However, this decline has negatively impacted the budget. This decline has been largely offset with the tuition increase in 2019 and with a substantial increase in the distance learning programs. The college offers several distance learning Master's programs, and will continue to expand these programs. To date, this has allowed us to manage the budget while focusing efforts on increasing PharmD enrollment. The college has proactively responded to the strong national headwinds which have negatively impacted the number of applicants applying to pharmacy schools.

From FY2014 through FY2020, the total number of grant applications submitted by the college research active faculty was 408, an average of 58 per year. The college was successful in during this time in securing 233 awards and a total awarded amount of \$15.54 million dollars. Total expenditures for this period were \$12.9M, with an average yearly expenditure of \$1.8 million dollars. The university's policy is to distribute 24% of the facilities and administrative (F&A) recovery back to the college. From FY14 through FY20, the college received a total of \$902,436 averaging \$129,000 per year.

From 2015 through 2021, the college received 3,140 gifts from 2,538 donors. The college received 4.4M dollars in gift funds: \$43,372 in matching gift claims, \$1,167,956 in pledge payments, \$1,901,531 in planned gifts and \$1,312,881 in pledges. The largest five planned gift bequests were for \$850,000, \$250,000, \$230,648, \$183,333 and \$100,000.

Assessment of Educational Outcomes

The CAPE outcomes, the college's educational outcomes, are the foundation of our commitment to producing practice-ready graduates. The PPCP is also threaded throughout the curriculum and assessed. Introduced in orientation and in several early foundational courses, the PREP project, OSCEs and pharmacy practice skills development modules allow students to develop and refine the necessary PPCP skills before they are applied and evaluated on APPEs.

Formative and Summative Assessments

Faculty and preceptors utilize formative and summative assessments of students in the classroom, laboratory and experiential settings. Examples of formative assessments include low to no stake homework assignments, audience response systems (Kahoot!, Mentimeter, ExamNow, Echo360, etc.), Socrative® utilized to provide immediate feedback on individual and group activities in several courses, rubrics utilized in pharmacy practice skills development courses, exam wrappers, the business plan rubric and journal club/case presentation evaluations utilized on APPEs. Numerous examples of summative assessment in the didactic and experiential curriculum include pharmacy practice skills lab development practicums, comprehensive therapeutics exams, OSCEs, IPPE/APPE final evaluations and IPE learning competencies. On a programmatic level, OSCEs, top 200 assessments and the PCOA are examples of summative assessments. Students also complete reflections and self-assessments in areas such as goal setting, personal and professional development, co-curricular activities, patient care skills and teamwork.

Standardized and Comparative Assessments

In this section, the PCOA, student "report cards", pre-NAPLEX, NAPLEX, MPJE, Top 200, OSCEs and APPE performance data (PPCP, EPAs, etc.) are discussed.

Student Achievement and Readiness

Each course and activity in the P1-P3 curriculum was evaluated for its contribution to APPE-readiness by APPE topic, CAPE-related domains, APPE-readiness core domain and Entrustable Professional Activities (EPAs). EPAs with level of trust were included for Pharmacy Practice, all three Pharmacy Practice Skills Development courses, OSCEs and IPPEs. There were no CAPE-related or APPE-readiness core domains or required activities determined to be missing from the curriculum. Passing required courses demonstrates competency for many of these domains. Students achieve competency on CAPE outcomes, the PPCP and all areas of Appendix I. Practice-readiness is assessed through the use of preceptor evaluations of students meeting competencies in rotation goals and passing the capstone course. Ultimately, passing the NAPLEX and MPJE determine the practice-readiness of each student.

Continuous Quality Improvement

In this section, curricular mapping (to identify gaps) and outcome assessment data (to identify weaknesses in the curriculum) are discussed. Additional CQI measures are also discussed, such as peer review of teaching, course and faculty evaluations and the course review process. Finally, the sources of student, staff, faculty, preceptors and employers feedback are reviewed. This section concludes with how assessment data is shared broadly across the college.

Assessment of Structure and Process

Organizational Effectiveness

The organizational structure of the college is described in Standard 8 and determined by the college bylaws and strategic plan. Developed in 2016 after broad internal and external input, the strategic plan is divided into four pillars: viability, community engagement and outreach, research and scholarship and professional excellence. Each year, the college faculty develops and approves strategic initiatives that align with the core elements of each pillar. Other ways where organizational effectiveness is evaluated include college committees and internal and external surveys.

Curriculum Assessment and Improvement

The assessment of curricular effectiveness is outlined in the assessment plan and is shared between the assessment and curriculum committees with administrative support provided by the Office of Assessment. The curriculum is mapped to CAPE, PPCP, Appendix I, EPAs and the American College of Clinical Pharmacotherapy (ACCP) Didactic Curriculum toolkit. After carefully analyzing each map, it was confirmed that there is adequate teaching and assessment of each of the mapped areas. Additionally, outcome assessment data supports competency in each mapped domain. Finally, the course evaluation process has also yielded important curricular changes.

Faculty Productivity Assessment

Comprehensive faculty evaluations are accomplished through the APR process, which includes faculty reflection on and self-evaluation of achievement of stated goals. This structured approach provides a forum for the division chair and faculty member to collectively assess needs of the faculty member and potential new trajectories of effort for the following year to align with the strategic priorities of the college. Additionally, the strategic plan scorecard monitors faculty productivity in the areas of scholarship, funding and grant applications.

Interprofessional Preparedness

The college has a comprehensive interprofessional preparedness plan that is threaded throughout the didactic and experiential curricula as well as the co-curriculum.

Clinical Reasoning Skills

Evidence-based clinical reasoning skills, the ability to apply these skills across the patient's lifespan, and the retention of knowledge that underpins these skills, are regularly assessed throughout the curriculum. In the experiential curriculum, clinical reasoning skills are modeled by IPPE and APPE preceptors. The framework for IPPE learning outcomes is the PPCP and EPAs, both of which rely heavily on clinical reasoning. It is expected that APPEs will further season clinical reasoning skills through preceptor, health professional and patient interactions.

APPE Preparedness

Each course and activity in the P1-P3 curriculum was evaluated for its contribution to APPE-readiness by APPE topic, CAPE-related domains, APPE-readiness core domain and Entrustable Professional Activities (EPAs). EPAs with level of trust were included for Pharmacy Practice, all three Pharmacy Practice Skills Development courses, OSCEs and IPPEs. There were no CAPE-related or APPE-readiness core domains or required activities determined to be missing from the curriculum. Passing required courses demonstrates competency for many of these domains.

Admission Criteria

The Admissions Committee regularly assesses admission criteria, policies, and procedures to ensure a qualified and diverse student body. Objective evaluation of predictors of success and poor academic outcomes is performed regularly in collaboration with the Academic Performance and Hearing Committee (APHC).