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May 1, 2022

Jan Engle, PharmD., PhD. (Hon), FAPhA, FCCP, FNAP
190 S. LaSalle Street, Suite 2850
Chicago, Illinois 60603-3499

Dear Dr. Engle:

On behalf of the Board of Regents and members of the American College of Clinical Pharmacy (ACCP), I am submitting formal comments on [Standards 2016](#) for consideration by ACPE in its development of "Standards 2025" (please see attachment).

These comments were developed by ACCP's 2022 Educational Affairs Committee in collaboration with the College's Board of Regents. Members of the committee were:

Chair: Dawn Havrda

Vice Chair: Julie Murphy

Members:

Tina Beck
Krestina Bednarz (PGY 1)
Maya Chilbert
Krystal Edwards
Caitlin Gibson
Justin Kinney
Allison Mann
Rachel Moniz (student, 2023)
Bruce Mueller
Branden Nemecek
Kelly Rogers
Melody Ryan
Amy Schwartz

In preparing our comments, we were mindful of your request to not only identify needed additions to the standards but to recommend ways to streamline or remove unnecessary items. Hence, you will find that we have recommended a number of options to reduce redundancy and combine some sections.

Dr. Jan Engle
May 1, 2022
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Thank you for the opportunity to submit these comments for the Counsel's consideration. Please don't hesitate to contact me if we can provide additional information or clarification of any of our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Maddux". The signature is fluid and cursive, with a large loop at the end.

Michael S. Maddux, Pharm.D., FCCP
Executive Director

Attachment

Standard 1: Foundational Knowledge: The professional program leading to the Doctor of Pharmacy degree (hereinafter "the program") develops in the graduate the knowledge, skills, abilities, behaviors, and attitudes necessary to apply the foundational sciences to the provision of patient-centered care.

1.1. Foundational knowledge - The graduate is able to develop, integrate, and apply knowledge from the foundational sciences (i.e., biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient-centered care.

Comments:

- 1.1: Change "solve therapeutic problems" to "identify and solve therapeutic problems."
- 1.1: Add a statement regarding health disparities.
- 1.1: Remove "explain drug action" since it is covered under pharmaceutical sciences.

Standard 2: Essentials for Practice and Care: 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.

2.1. Patient-centered care - The graduate is able to provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

2.2. Medication use systems management - The graduate is able to manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.

2.3. Health and wellness - The graduate is able to design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.

2.4. Population-based care - The graduate is able to describe how population-based care influences patient-centered care and the development of practice guidelines and evidence-based best practices.

Comments:

- 2.1: Change "medication expert" to "medication specialist" given the goal is an entry-level pharmacist that is not an "expert" at graduation.
- 2.3: Change to: "The graduate is able to design and implement prevention..."
- 2.3: Remove the word "chronic."

Standard 3: Approach to Practice and Care: The program imparts to the graduate the knowledge, skills, abilities, behaviors, and attitudes necessary to solve problems; educate, advocate, and collaborate, working with a broad range of people; recognize social determinants of health; and effectively communicate verbally and nonverbally.

3.1. Problem solving – The graduate is able to identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.

3.2. Education - The graduate is able to educate all audiences by determining the most effective and enduring ways to impart information and assess learning.

3.3. Patient advocacy - The graduate is able to represent the patient's best interests.

3.4. Interprofessional collaboration - The graduate is able to actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs..

3.5. Cultural sensitivity - The graduate is able to recognize social determinants of health to diminish disparities and inequities in access to quality care.

3.6. Communication - The graduate is able to effectively communicate verbally and nonverbally when interacting with individuals, groups, and organizations

Comments:

- Standard 3 description: Change to "...recognize and address social determinants of health; and...."
- 3.4: Change to: "The graduate is able to actively participate, collaborate, and engage as a healthcare team member...." Recommend addressing IPE in only one standard (i.e., Standard 11 – see comments below).

Standard 4: Personal and Professional Development: The program imparts to the graduate the knowledge, skills, abilities, behaviors, and attitudes necessary to demonstrate self- awareness, leadership, innovation and entrepreneurship, and professionalism.

4.1. Self-awareness - The graduate is able to examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

4.2. Leadership - The graduate is able to demonstrate responsibility for creating and achieving shared goals, regardless of position.

4.3. Innovation and entrepreneurship - The graduate is able to engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.

4.4. Professionalism - The graduate is able to exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.

Comments:

- Include reference to the updated Oath of a Pharmacist.
- 4.2: Change "Leadership" to "Teamwork." Change description to: "The graduate is able to work as a member of a team and demonstrate responsibility..." As a member of a team, the student may be the leader.

Standard 10: Curriculum Design, Delivery, and Oversight; The curriculum is designed, delivered, and monitored by faculty to ensure breadth and depth of requisite knowledge and skills, the maturation of professional attitudes and behaviors, and the opportunity to explore professional areas of interest. The curriculum also emphasizes active learning pedagogy, content integration, knowledge acquisition, skill development, and the application of knowledge and skills to therapeutic decision-making.

10.1. Program duration - The professional curriculum is a minimum of four academic years of full-time study or the equivalent.

10.2. Curricular oversight - Curricular oversight involves collaboration between faculty and administration. The body/bodies charged with curricular oversight: (1) are representative of the faculty at large, (2) include student representation, (3) effectively communicate and coordinate efforts with body/bodies responsible for curricular assessment, and (4) are adequately resourced to ensure and continually advance curricular quality.

10.3. Knowledge application - Curricular expectations build on a pre-professional foundation of scientific and liberal studies. The professional curriculum is organized to allow for the logical building of a sound scientific and clinical knowledge base that culminates in the demonstrated ability of learners to apply knowledge to practice.

10.4. Skill development - The curriculum is rigorous, contemporary, and intentionally sequenced to promote integration and reinforcement of content and the demonstration of competency in skills required to achieve the Educational Outcomes articulated in Section I.

10.5. Professional attitudes and behaviors development - The curriculum inculcates professional attitudes and behaviors leading to personal and professional maturity consistent with the Oath of the Pharmacist.

10.6. Faculty and preceptor credentials/expertise -All courses in the curriculum are taught by individuals with academic credentials and expertise that are explicitly linked to their teaching responsibilities.

10.7. Content breadth and depth - Programs document, through mapping or other comparable methods, the breadth and depth of exposure to curricular content areas deemed essential to pharmacy education at the doctoral level (Appendices 1 and 2).

10.8. Pharmacists' Patient Care Process – The curriculum prepares students to provide patient-centered collaborative care as described in the Pharmacists' Patient Care Process model endorsed by the Joint Commission of Pharmacy Practitioners.

10.9. Electives - Time is reserved within the core curriculum for elective didactic and experiential education courses that permit exploration of and/or advanced study in areas of professional interest.

10.10. Feedback - The curriculum allows for timely, formative performance feedback to students in both didactic and experiential education courses. Students are also provided the opportunity to give formative and/or summative feedback to faculty, including preceptors, on their perceptions of teaching/learning effectiveness.

10.11. Curriculum review and quality assurance - Curriculum design, delivery, and sequencing are regularly reviewed and, when appropriate, revised by program faculty to ensure optimal achievement of educational outcomes with reasonable student workload expectations.

10.12. Teaching and learning methods - The didactic curriculum is delivered via teaching/learning methods that: (1) facilitate achievement of learning outcomes, (2) actively engage learners, (3) promote student responsibility for self-directed learning, (4) foster collaborative learning, and (5) are appropriate for the student population (i.e., campus-based distance-based).

10.13. Diverse learners - The didactic curriculum incorporates teaching techniques and strategies that address the diverse learning needs of students

10.14. Course syllabi - Syllabi for didactic and experiential education courses, developed and updated through a faculty-approved process, contain information that supports curricular quality assurance assessment.

10.15. Experiential quality assurance - A quality assurance procedure for all pharmacy practice experiences is established and implemented to: (1) facilitate achievement of stated course expectations, (2) standardize key components of experiences across all sites offering the same experiential course, and (3) promote consistent assessment of student performance.

10.16. Remuneration/employment - Students do not receive payment for participating in curricular pharmacy practice experiences, nor are they placed in the specific practice area within a pharmacy practice site where they are currently employed.

10.17. Academic integrity* - To ensure the credibility of the degree awarded, the validity of individual student assessments, and the integrity of student work, the college or school ensures that assignments and examinations take place under circumstances that minimize opportunities for academic misconduct. The college or school ensures the correct identity of all students (including distance students) completing proctored assessments.

Comments:

- 10.2: Remove "administration." Most Curriculum Committees include Academic Affairs deans which represents administration, but they are also faculty.
- 10.3, 10.4, and 10.5 are duplicative of Standards 3 and 4.
- 10.4: Define "skill development" and "skills."
- 10.6: Remove 10.6 since it is duplicative for Standards 19 and 20.

- 10.5: Remove 10.5 since it is duplicative of Standards 3 and 4.
- 10.8: Recommend incorporating the operational definitions for each of the five PPCP essential functions as defined in [The Patient Care Process for Delivering Comprehensive Medication Management \(CMM\)](#) to enhance instruction and assessment of the PPCP.
- 10.9: Recommend only including didactic electives in Standard 10 and leaving experiential electives in Standard 13.
- 10.10: Recommend removing experiential course feedback since included in Standards 12, 13, 20 and 22, and focusing on the didactic curriculum solely.
- 10.11: Clarify what is meant by “reasonable student workload.”
- 10.12 and 10.13: Combine the two key elements.
- 10.14: Combine with 10.11.
- 10.15: Move to Standard 12 (IPPE) and Standard 13 (APPE) to minimize duplication.
- 10.16: Move to Standard 12 (IPPE) and Standard 13 (APPE) to minimize duplication.

Standard 11: Interprofessional Education (IPE): The curriculum prepares all students to provide entry level, patient-centered care in a variety of practice settings as a contributing member of an interprofessional team. In the aggregate, team exposure includes prescribers as well as other healthcare professionals.

11.1. Interprofessional team dynamics -All students demonstrate competence in interprofessional team dynamics, including articulating the values and ethics that underpin interprofessional practice, engaging in effective interprofessional communication, including conflict resolution and documentation skills, and honoring interprofessional roles and responsibilities. Interprofessional team dynamics are introduced, reinforced, and practiced in the didactic and Introductory Pharmacy Practice Experience (IPPE) components of the curriculum, and competency is demonstrated in Advanced Pharmacy Practice Experience (APPE) practice settings.

11.2. Interprofessional team education - To advance collaboration and quality of patient care, the didactic and experiential curricula include opportunities for students to learn about, from, and with other members of the interprofessional healthcare team. Through interprofessional education activities, students gain an understanding of the abilities, competencies, and scope of practice of team members. Some, but not all, of these educational activities may be simulations.

11.3. Interprofessional team practice -All students competently participate as a healthcare team member in providing direct patient care and engaging in shared therapeutic decision- making. They participate in experiential educational activities with prescribers/student prescribers and other student/professional healthcare team members, including face-to-face interactions that are designed to advance interprofessional team effectiveness

Comments:

- 11.1: Add clarification if the activities need to be throughout the curriculum. The Standard is not being assessed similarly between schools and lack of clarity has led to programs being found noncompliant.
- 11.3: Consider a move to Standard 13.
- Standard 3 also addresses IPE. Consider removing from Standard 3 to avoid duplication.

Standard 12: Pre-Advanced Pharmacy Practice Experience (Pre-APPE) Curriculum: The Pre- APPE curriculum provides a rigorous foundation in the biomedical, pharmaceutical, social/administrative/behavioral, and clinical sciences, incorporates Introductory Pharmacy Practice Experience (IPPE), and inculcates habits of self-directed lifelong learning to prepare students for Advanced Pharmacy Practice Experience (APPE).

12.1. Didactic curriculum - The didactic portion of the Pre-APPE curriculum includes rigorous instruction in all sciences that define the profession (see Appendix 1). Appropriate breadth and depth of instruction in these sciences is documented regardless of curricular model employed (e.g., blocked, integrated, traditional 'stand-alone' course structure, etc.).

12.2. Development and maturation - The Pre-APPE curriculum allows for the development and maturation of the knowledge, skills, abilities, attitudes, and behaviors that underpin the Educational Outcomes articulated in Standards 1-4 and within Appendices 1 and 2.

12.3. Affective domain elements - Curricular and, if needed, co-curricular activities and experiences are purposely developed and implemented to ensure an array of opportunities for students to document competency in the affective domain-related expectations of Standards 3 and 4. Co-curricular activities complement and advance the learning that occurs within the formal didactic and experiential curriculum.

12.4. Care across the lifespan - The Pre-APPE curriculum provides foundational knowledge and skills that allow for care across the patient's lifespan.

12.5. IPPE expectations - IPPEs expose students to common contemporary U.S. practice models, including interprofessional practice involving shared patient care decision-making, professional ethics and expected behaviors, and direct patient care activities. IPPEs are structured and sequenced to intentionally develop in students a clear understanding of what constitutes exemplary pharmacy practice in the U.S. prior to beginning APPE.

12.6. IPPE duration - IPPE totals no less than 300 clock hours of experience and is purposely integrated into the didactic curriculum. A minimum of 150 hours of IPPE are balanced between community and institutional health-system settings.

12.7. Simulation for IPPE - Simulated practice experiences (a maximum of 60 clock hours of the total 300 hours) may be used to mimic actual or realistic pharmacist-delivered patient care situations. However, simulation hours do not substitute for the 150 clock hours of required IPPE time in community and institutional health-system settings. Didactic instruction associated with the implementation of simulated practice experiences is not counted toward any portion of the 300 clock hour IPPE requirement.

Comments:

- 12.1: Move to Standard 10 to avoid duplication.
- 12.2: Remove 12.2 due to overlap with Standards 1-4 and 10.
- 12.3: Remove 12.3 due to overlap with Standards 3 and 4. Change "co-curricular" terminology since affective domain elements do not have to be co-curricular (can be within the curriculum).
- 12.4: Incorporate into 12.1.
- 12.6: Consider waiving IPPE hours in community or institutional setting if a student can document competency of the knowledge and skills of the IPPE based on a minimum amount of work experience in the setting.
- 12.7: With change to IPPE being competency-based, remove simulation for IPPE. Simulation could be used to evaluate achievement of competency and not count toward a minimum hour requirement.
- Recommend Standard 12 be IPPE alone and didactic curriculum information be moved to Standard 10.

Standard 13: Advanced Pharmacy Practice Experience (APPE) Curriculum: A continuum of required and elective APPEs is of the scope, intensity, and duration required to support the achievement of the Educational Outcomes articulated in Standards 1-4 and within Appendix 2 to prepare practice-ready graduates. APPEs integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities.

13.1. Patient care emphasis - Collectively, APPEs emphasize continuity of care and incorporate acute, chronic, and wellness-promoting patient-care services in outpatient (community/ambulatory care) and inpatient (hospital/health system) settings.

13.2. Diverse populations - In the aggregate, APPEs expose students to diverse patient populations as related to age, gender, race/ethnicity, socioeconomic factors (e.g., rural/urban, poverty/affluence), and disease states.

13.3. Interprofessional experiences - In the aggregate, students gain in-depth experience in delivering direct patient care as part of an interprofessional team.

13.4. APPE duration - The curriculum includes no less than 36 weeks (1440 hours) of APPE. All students are exposed to a minimum of 160 hours in each required APPE area. The majority of APPE is focused on direct patient care.

13.5. Timing - APPEs follow successful completion of all IPPE and required didactic curricular content. Required capstone courses or activities that provide opportunity for additional professional growth and insight are allowed during or after completion of APPEs. These activities do not compromise the quality of the APPEs, nor count toward the required 1440 hours of APPE.

13.6. Required APPE - Required APPEs occur in four practice settings: (1) community pharmacy; (2) ambulatory patient care; (3) hospital/health system pharmacy; and (4) inpatient general medicine patient care.

13.7. Elective APPE - Elective APPEs are structured to give students the opportunity to: (1) mature professionally, (2) secure the breadth and depth of experiences needed to achieve the Educational Outcomes articulated in Standards 1-4, and (3) explore various sectors of practice.

13.8. Geographic restrictions - Required APPEs are completed in the United States or its territories or possessions. All quality assurance expectations for U.S.-based experiential education courses apply to elective APPEs offered outside of the U.S.

Comments:

- 13.1-13.3: Remove 13.1-13.3 since duplicative with Standards 1-4, 10 and 11. The description of Standard 13 denotes these expectations. The standard should be limited to new information pertaining to APPE.
- 13.7: Remove (1) "mature professionally," as all APPEs should help pharmacy students mature/develop professionally and this is a nonspecific/immeasurable criterion.
- 13.8: Recommend removing the requirement that all required APPEs be completed in the U.S. Experiential course requirements and quality assurance expectations should dictate if an international APPE would count as a required APPE.

Standard 16: Admissions: The college or school develops, implements, and assesses its admission criteria, policies, and procedures to ensure the selection of a qualified and diverse student body into the professional degree program.

16.1. Enrollment management - Student enrollment is managed by college or school administration. Enrollments are in alignment with available physical, educational, financial, faculty, staff, practice site, preceptor, and administrative resources.

16.2. Admission procedures - A duly constituted committee of the college or school 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.

16.3. Program description and quality indicators - The college or school produces and makes available to the public, including prospective students: (1) a complete and accurate description of the professional degree program; (2) the program's current accreditation status; and (3) ACPE-required program performance information including on-time graduation rates and most recent NAPLEX first-attempt pass rates.

16.4. Admission criteria - The college or school sets performance expectations for admission tests, evaluations, and interviews used in selecting students who have the potential for success in the professional degree program and the

profession. Applicant performance on admission criteria is documented; and the related records are maintained by the college or school as per program/university requirements.

16.5. Admission materials - The college or school produces and makes available to prospective students the criteria, policies, and procedures for admission to the professional degree program. Admission materials clearly state academic expectations, required communication skills, types of personal history disclosures that may be required, and professional and technical standards for graduation.

16.6. Written and oral communication assessment – Written and oral communication skills are assessed in a standardized

16.7. Candidate interviews - Standardized interviews (in-person, telephonic, and/or computer facilitated) of applicants are conducted as a part of the admission process to assess affective domain characteristics (i.e., the Personal and Professional Development domain articulated in Standard 4)

16.8. Transfer and waiver policies - A college or school offering multiple professional degree programs, or accepting transfer students from other schools or colleges of pharmacy, establishes and implements policies and procedures for students who request to transfer credits between programs. Such policies and procedures are based on defensible assessments of course equivalency. A college or school offering multiple pathways to a single degree has policies and procedures for students who wish to change from one pathway to another.

Comments:

- No comments submitted.

Standard 17: Progression: The college or school develops, implements, and assesses its policies and procedures related to student progression through the PharmD program.

17.1. Progression policies - The college or school creates, makes available to students and prospective students, and abides by criteria, policies, and procedures related to:

- Academic progression
- Remediation
- Missed course work or credit
- Academic probation
- Academic dismissal
- Dismissal for reasons of misconduct
- Readmission
- Leaves of absence
- Rights to due process
- Appeal mechanisms (including grade appeals)

17.2. Early intervention - The college or school's system of monitoring student performance provides for early detection of academic and behavioral issues. The college or school develops and implements appropriate interventions that have the potential for successful resolution of the identified issues.

Comments:

- No comments submitted.

Standard 18: Faculty and Staff-Quantitative Factors: The college or school has a cohort of faculty and staff with the qualifications and experience needed to effectively deliver and evaluate the professional degree program.

18.1. Sufficient faculty - The college or school has a sufficient number of faculty members to effectively address the following programmatic needs:

- Teaching (didactic, simulation, and experiential)
- Professional development
- Research and other scholarly activities
- Assessment activities
- College/school and/or university service
- Intraprofessional and interprofessional collaboration
- Student advising and career counseling
- Faculty mentoring
- Professional service
- Community service
- Pharmacy practice
- Responsibilities in other academic programs (if applicable)
- Support of distance students and campus(es) (if applicable)*

18.2. Sufficient staff - The college or school has a sufficient number of staff to effectively address the following programmatic needs:

- Student and academic affairs-related services, including recruitment and admission
- Experiential education
- Assessment activities
- Research administration
- Laboratory maintenance
- Information technology infrastructure
- Pedagogical and educational technology support
- Teaching assistance
- General faculty and administration clerical support
- Support of distance students and campus(es) (if applicable)

Comments:

- The Guidance document for Standard 18 provides more valuable information as to the performance expectations for Standard 18. Recommend incorporating aspects of the guidance document into the standard.

Standard 19: Faculty and Staff-Qualitative Factors: Faculty and staff have academic and professional credentials and expertise commensurate with their responsibilities to the professional program and their academic rank.

19.1. Educational effectiveness - Faculty members have the capability and demonstrate a continuous commitment to be effective educators and are able to effectively use contemporary educational techniques to promote student learning in all offered pathways.

19.2. Scholarly productivity - The college or school creates an environment that both requires and promotes scholarship and also develops mechanisms to assess both the quantity and quality of faculty scholarly productivity.

19.3. Service commitment - In the aggregate, faculty engage in professional, institutional, and community service that advances the program and the profession of pharmacy.

19.4. Practice understanding - Faculty members, regardless of their discipline, have a conceptual understanding of and commitment to advancing current and proposed future pharmacy practice.

19.5. Faculty/staff development - The college or school provides opportunities for career and professional development of its faculty and staff, individually and collectively, to enhance their role-related skills, scholarly productivity, and leadership.

19.6. Policy application - The college or school ensures that policies and procedures for faculty and staff recruitment, performance review, promotion, tenure (if applicable), and retention are applied in a consistent manner.

Comments:

- No comments submitted.

Standard 20: Preceptors: The college or school has a sufficient number of preceptors (practice faculty or external practitioners) to effectively deliver and evaluate students in the experiential component of the curriculum. Preceptors have professional credentials and expertise commensurate with their responsibilities to the professional program.

20.1. Preceptor criteria - The college or school makes available and applies quality criteria for preceptor recruitment, orientation, performance, and evaluation. The majority of preceptors for any given student are U.S. licensed pharmacists.

20.2. Student-to preceptor ratio – Student to precepting pharmacist ratios allow for the individualized mentoring and targeted professional development of learners.

20.3. Preceptor education and development - Preceptors are oriented to the program's mission, the specific learning expectations for the experience outlined in the syllabus, and effective performance evaluation techniques before accepting students. The college or school fosters the professional development of its preceptors commensurate with their educational responsibilities to the program.

20.4. Preceptor engagement - The college or school solicits the active involvement of preceptors in the continuous quality improvement of the educational program, especially the experiential component.

20.5. Experiential education administration - The experiential education component of the curriculum is led by a pharmacy professional with knowledge and experience in experiential learning. The experiential education program is supported by an appropriate number of qualified faculty and staff.

Comments:

- No comments submitted

Standard 21: Physical Facilities and Educational Resources: The college or school has adequate and appropriately equipped physical and educational facilities to achieve its mission and goals.

21.1. Physical facilities - The college or school's physical facilities (or the access to other facilities) meet legal and safety standards, utilize current educational technology, and are clean and well maintained.

21.2. Physical facilities' attributes - The college or school's physical facilities also include adequate:

- Faculty office space with sufficient privacy to permit accomplishment of responsibilities
- Space that facilitates interaction of administrators, faculty, students, and interprofessional collaborators
- Classrooms that comfortably accommodate the student body and that are equipped to allow for the use of required technology
- Laboratories suitable for skills practice, demonstration, and competency evaluation
- Access to educational simulation capabilities

- Faculty research laboratories with well-maintained equipment including research support services within the college or school and the university
 - Animal facilities that meet care regulations (if applicable)
 - Individual and group student study space and student meeting facilities
- 21.3. Educational resource access - The college or school makes available technological access to current scientific literature and other academic and educational resources by students, faculty, and preceptors.
- 21.4 Librarian expertise access - The college or school has access to librarian resources with the expertise needed to work with students, faculty, and preceptors on effective literature and database search and retrieval strategies.

Comments:

- Add Accessibility: recommend consideration of adding elements to ensure enhanced student accessibility, equity and inclusion. For example, this might include space for nondenominational prayer and meditation and accommodations for a diverse spectrum of students.

Standard 22: Practice Facilities: The college or school has the appropriate number and mix of facilities in which required and elective practice experiences are conducted to accommodate all students. Practice sites are appropriately licensed and selected based on quality criteria to ensure the effective and timely delivery of the experiential component of the curriculum.

- 22.1. Quality criteria - The college or school employs quality criteria for practice facility recruitment and selection, as well as setting forth expectations and evaluation based on student opportunity to achieve the required Educational Outcomes as articulated in Standards 1- 4.
- 22.2. Affiliation agreements - The college or school secures and maintains signed affiliation agreements with the practice facilities it utilizes for the experiential component of the curriculum. At a minimum, each affiliation agreement ensures that all experiences are conducted in accordance with state and federal laws.
- 22.3. Evaluation - Practice sites are regularly evaluated. Quality enhancement initiatives and processes are established, as needed, to improve student learning outcomes.

Comments:

- 22.3: Add language that a college/school should have a plan/timeline for site evaluations. The language, "regularly evaluated" is good, but clarifying a specific plan/timeline would be helpful for the sites.
- Guidance Document 22b.: Consider indicating that the listed non-patient care sites are not all-inclusive. There are other common APPE examples not listed, such as pharmacy administration, non-laboratory research, and academia.

Appendix 1 – Required Elements:

Comments:

- Biomedical Sciences
 - No specific recommendations.
- Pharmaceutical Sciences
 - No specific recommendations.
- Social/Administrative/Behavioral Sciences

- Add a topic related to diversity, equity, and inclusion. The topic should include striving for health equity and identifying social determinants of health.
- Enhance language under “Professional Communication” to include technology-based modalities.
- Cultural Awareness should be about more than just patient outcomes. Revise to include that a patient’s cultural values may impact therapeutic decision making (i.e. patient’s autonomy in choosing their own therapeutic plan) and guide patient-centered care. Consider using the definition from the Institute of Medicine (now NAM) for “patient-centered care” as a possible guide in this regard.
- Clinical Sciences
 - Recommend inclusion of the [ACCP Pharmacotherapy Didactic Curriculum Toolkit](#) (which is updated regularly) in reference to the topic of Pharmacotherapy.
 - Self-Care Pharmacotherapy: The inclusion of “triage to other health professionals” in this topic but not in other topics (Pharmacotherapy or Patient Assessment) is inconsistent since pharmacists triage patients for items other than self-care.
 - Include “Comprehensive Medication Management” as a new topic.
- Overall comments:
 - Recommend combination of elements within the Biomedical, Pharmaceutical, and Social/Administrative/ Behavioral Sciences. There is specificity in the various sciences, yet Pharmacotherapy in Clinical Sciences is all encompassing.
 - ACPE asks for additional required elements. However, we recommend reviewing Appendix 1 for needed elements and consider revision of the list. The appendix is based on the pre-professional requirements based on the 2007 standards. Recommend a process whereby items in Appendix 1 are reviewed and updated by the appropriate stakeholders.

Appendix 2 – Expectations within the APPE Curriculum:

Comments:

- Recommend addition of definitions/guidelines for all required APPEs. In Standards 2016, Appendix 2 only includes Ambulatory Care. Minimum expectations and guidelines should be included for the required APPEs in community, general medicine, and health system pharmacy also.