Experiential Education
Experiential Education

Contents

Introduction to Experiential Education ........................................................................................................ 3
   Experiential Education Calendar ................................................................................................................. 4
Selected ACPE Standards 2007 ....................................................................................................................... 5
   Standard No. 12: Professional Competencies and Outcome Expectations .................................................. 5
   Standard No. 14: Curricular Core—Pharmacy Practice Experiences ......................................................... 7
   Standard No. 28: Practice Facilities ........................................................................................................... 8
Appendix C ....................................................................................................................................................... 9
   Additional Guidance on Pharmacy Practice Experiences ........................................................................... 9
   Introductory Pharmacy Practice Experience (IPPE) ..................................................................................... 16
   Advanced Pharmacy Practice Experiences (APPEs) .................................................................................. 17
Introduction to Experiential Education

The Accreditation Council for Pharmacy Education (ACPE) is the national agency that accredits schools and colleges of pharmacy as well as continuing pharmacy education. In 2006, the ACPE released new accreditation standards and guidelines for schools and colleges of pharmacy. These new standards became effective July 1, 2007. (See Selected ACPE Standards 2007).

The new ACPE standards emphasize the importance of professional practice experience in the curriculum of a Doctor of Pharmacy student. Standard 14 of the 2007 Standards requires that colleges and schools provide a continuum of required and elective pharmacy practice experiences throughout the curriculum, from introductory pharmacy practice experiences (IPPE) to advanced pharmacy practice experiences (APPE), of adequate scope, intensity, and duration to support the achievement of the professional competencies. These pharmacy practice experiences must integrate, apply, reinforce, and advance the knowledge, skills, attitudes, and values developed through the other components of the curriculum.

The 2007 Standards require that IPPEs and APPEs comprise not less than 5% and 25%, respectively of the entire Doctor of Pharmacy curriculum. This means that approximately one-third of a student’s education will be conducted in the practice setting.
## Experiential Education Calendar

<table>
<thead>
<tr>
<th>Year</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>Jul</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IP or CP 1</td>
<td>IP or CP 1</td>
<td></td>
<td></td>
<td>IP or CP 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CP 2</td>
<td>CP 2</td>
<td></td>
<td></td>
<td>CP 2</td>
<td>CP 2</td>
<td>CP 2</td>
</tr>
<tr>
<td>Year 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
</tr>
<tr>
<td>Year 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
<td>APPE</td>
</tr>
</tbody>
</table>

**Classroom Instruction**

- **CP**: Community Introductory Pharmacy Practice Experience (IPPE).
- **IP**: Institutional Introductory Pharmacy Practice Experience (IPPE).
- **APPE**: Advanced Pharmacy Practice Experiences (10 out of 14 months; 2 months classroom electives, 2 months vacation)
Selected ACPE Standards 2007

The following are selected ACPE Standards that govern pharmacy practice experiences, including the curriculum, preceptors, and sites. The standards are in bold type and the accompanying guidelines are in italics.

Standard No. 12: Professional Competencies and Outcome Expectations

Professional pharmacist competencies that must be achieved by graduates through the professional degree program curriculum are the ability to:

Provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences that may impact therapeutic outcomes.

Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.

These professional competencies must be used to guide the development of stated student learning outcome expectations for the curriculum. To anticipate future professional competencies, outcome statements must incorporate the development of the skills necessary to become self-directed lifelong learners.

Guideline 12.1

Graduates must possess the basic knowledge, skills, attitudes, and values to practice pharmacy independently at the time of graduation. In this regard, the college or school must ensure that graduates are competent, at a minimum, to:

- provide patient-centered care, through the ability to:
  - design, implement, monitor, evaluate, and adjust pharmacy care plans that are patient-specific; address health literacy, cultural diversity, and behavioral psychosocial issues; and are evidence-based
  - function effectively as a member of an interprofessional care team
• manage a successful patient-centered practice (including establishing, marketing, and being compensated for medication therapy management and patient care services rendered)
• provide population-based care, through the ability to develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmacoconomic data, medication-use criteria, medication use review, and risk-reduction strategies
• manage human, physical, medical, informational, and technological resources, through the ability to ensure efficient, cost-effective use of these resources in the provision of patient care
• manage medication use systems, through the ability to apply patient- and population-specific data, quality improvement strategies, medication safety and error reduction programs, and research processes to minimize drug misadventures and optimize patient outcomes; to participate in the development of drug use and health policy; and to help design pharmacy benefits
• promote the availability of effective health and disease prevention services and health policy through the ability to apply population-specific data, quality improvement strategies, informatics, and research processes to identify and solve public health problems and to help develop health policy

To be capable of the above, pharmacy graduates also must be able to:
• communicate and collaborate with patients, caregivers, physicians, nurses, other health care providers, policy makers, members of the community, and administrative and support personnel to engender a team approach to patient care
• retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information and counseling to patients, their families or caregivers, and other involved health care providers
• evaluate the quality of basic science and clinical research evidence to appropriately apply study results to practice decisions
• demonstrate expertise in informatics
• carry out duties in accordance with legal, ethical, social, economic, and professional guidelines
• maintain professional competence by identifying and analyzing emerging issues, products, and services
Standard No. 14: Curricular Core—Pharmacy Practice Experiences
The college or school must provide a continuum of required and elective pharmacy practice experiences throughout the curriculum, from introductory to advanced, of adequate scope, intensity, and duration to support the achievement of the professional competencies presented in Standard 12.

The pharmacy practice experiences must integrate, apply, reinforce, and advance the knowledge, skills, attitudes, and values developed through the other components of the curriculum. The objectives for each pharmacy practice experience and the responsibilities of the student, preceptor, and site must be defined. Student performance, nature and extent of patient and health care professional interactions, where applicable, and the attainment of desired outcomes must be documented and assessed.

In aggregate, the pharmacy practice experiences must include direct interaction with diverse patient populations in a variety of practice settings and involve collaboration with other health care professionals. Most pharmacy practice experiences must be under the supervision of qualified pharmacist preceptors licensed in the United States.

Guideline 14.1
Preceptors should hold full, shared, adjunct, or other defined positions in the college or school and should be well versed in the outcomes expected of students and the pedagogical methods that best enhance learning. In this regard, the college or school must ensure that preceptors receive orientation, especially for first-time preceptors prior to assuming their responsibilities, ongoing training, and development. Preceptors should provide close supervision of and significant interaction with students. The student-to-preceptor ratio for the pharmacy practice experiences should be adequate to provide individualized instruction, guidance, supervision, and assessment.
Standard No. 28: Practice Facilities
To support the introductory and advanced pharmacy practice experiences (required and elective) and to advance collaboratively the patient care services of pharmacy practice experience sites (where applicable), the college or school must establish and implement criteria for the selection of an adequate number and mix of practice facilities and secure written agreements with the practice facilities.

Guideline 28.1
*Before assigning students to any given practice site, the college or school must screen the site and associated preceptors using defined quality criteria to ensure that the educational experience would afford students the opportunity to achieve the required competencies.*

The Director of Experiential Education, in collaboration with members of the Department of Pharmacy Practice, will develop, implement, and maintain screening criteria for sites and preceptors involved in introductory as well as advanced pharmacy practice experiences. Site criteria will include a valid license, an adequate population for teaching, internet access to current drug information resources, an area for patient counseling, and adequate time for student training. Preceptor selection criteria will include a valid pharmacy license, good standing with the state board of pharmacy, in practice for a minimum of one year, and a commitment to daily contact with the student. **Appendix R** contains the pharmacy practice Site Selection Criteria and the pharmacy practice Preceptor Selection Criteria.
Appendix C

Additional Guidance on Pharmacy Practice Experiences

The following information is a compilation of comments received from ACPE stakeholders relative to pharmacy experiential education. As with Appendix B, the information is provided as a basis for curricular reflection and continuous quality improvement, driven by the mission and goals of the college or school.

General Guidance

The pharmacy practice experiences should:

- ensure that every student has multiple opportunities to perform patient-centered care activities in a variety of settings
- be in-depth, structured, and carefully coordinated with other components of the curriculum
- require active participation and patient care responsibilities, in a progressive fashion, designed to develop the practice skills, judgment, professional behavior, attitudes and values, confidence, and personal responsibility needed for each student to embark on an independent and collaborative practice

The development of the desired student competencies should occur in a progressive manner and involve experiences in a variety of practice settings in which pharmacists work as partners with patients, physicians, nurses, other health care professionals, and administrators.

General objectives and learning modules, as well as site-specific learning objectives, should be established for all of the pharmacy practice experiences. The objectives for the pharmacy practice experiences should identify the competencies to be achieved, expected types of patients (if applicable), level of student responsibility, and setting needed for the objectives to be met. The college or school should specify, for those pharmacy practice experiences involving direct patient care, the major disease states/conditions that all students are expected to encounter. The college or school should also specify the extent of student interaction with patients and the settings in which the interactions will occur.

Specific criteria should be developed to enable faculty and students to assess progress midway through the experience and at its completion. Students should be provided the opportunity to demonstrate achievement of stated competencies as assessed through the use of reliable, validated criteria.

Educational experiences in the same practice area, for example, community pharmacy, should result in comparable educational objectives and competencies in students, especially in the Advanced Pharmacy Practice Experiences.

Oversight of Pharmacy Practice Experiences

The experiential director, or equivalent person responsible for oversight and quality assurance of the pharmacy practice experience component of the curriculum, should have sufficient practice, academic, and management expertise to have credibility with other faculty and practitioners, as well as to direct the program in a manner that facilitates the college or school’s ability to influence advancement of the
practice of pharmacy. The college or school should ensure that the person has the appropriate expertise, support, and authority to evaluate, identify deficiencies if applicable, and implement change where needed. The person should serve on, or be *ex-officio* to, key committees where their input is most effective.

Colleges and schools should have systems, such as computerized programs, to manage the pharmacy practice experiences.

Important factors to be considered and assessed to ensure the desired outcomes are the number of students each preceptor and/or site is assigned; the nature, dynamics, and other responsibilities of the practice site; the experience and other commitments of the preceptor; the specific objectives of the experience; the potential benefit of student-to-student interaction and collaboration; and the instructional methodologies employed.

The college or school should obtain assessment of qualities and performance of preceptors from students in a manner that would not adversely affect the grading process. The methods of assessment and reporting employed should promote the development within the student of the ability to offer constructive criticism in a manner appropriate to interprofessional relationships. The assessment should include each preceptor’s:

- ability to facilitate learning
- communication skills
- quality as a professional role model
- effectiveness related to pharmacy education

The quality control procedure employed should use a variety of methods, such as use of a review committee consisting of practitioners, faculty, and students, and visits to and communications with experiential sites conducted by trained individuals.
Preceptors

The college or school should identify preceptors who will be positive role models for students and who, in general, demonstrate the following behavior, qualities, and values (as applicable to their area of practice):

- practice ethically and with compassion for patients
- accept personal responsibility for patient outcomes
- have professional training, experience, and competence commensurate with their position
- utilize clinical and scientific publications in clinical care decision making and evidence-based practice
- have a desire to educate others (patients, care givers, other health care professionals, students, pharmacy residents)
- have an aptitude to facilitate learning
- be able to document and assess student performance
- have a systematic, self-directed approach to their own continuing professional development
- collaborate with other health care professionals as a member of a team
- be committed to their organization, professional societies, and the community

In general, preceptor training should include:

- orientation to the college or school’s mission, goals, and values
- review of the college or school’s curriculum and teaching methodologies
- review of the specific objectives for the pharmacy practice experiences
- guidance regarding the assessment of students’ prior knowledge and experience relative to the rotation’s objectives so that the preceptor may tailor the rotation to maximize the educational experience and ensure appropriate student interaction with patients and their care givers and other health professionals, if applicable
- review of the college or school’s performance assessment and grading systems

Introductory Pharmacy Practice Experiences

The introductory pharmacy practice experiences may use various formats, including:

- shadowing of practitioners or students on advanced pharmacy practice experiences
- interviews with real patients
- simulation
- service learning (see below)
- real practice experiences in community, institutional, long-term care pharmacies, etc.

In this regard, colleges and schools are encouraged to identify or develop introductory pharmacy practice experiences that consistently expose students to and allow participation in activities such as, but not limited to:

- processing and dispensing new/refill medication orders
- conducting patient interviews to obtain patient information
- creating patient profiles using information obtained
• responding to drug information inquiries
• interacting with other health care professionals
• participating in educational offerings designed to benefit the health of the general public
• interpreting and evaluating patient information
• triaging and assessing the need for treatment or referral, including referral for a patient seeking pharmacist-guided self-care
• identifying patient-specific factors that affect health, pharmacotherapy, and/or disease state management
• assessing patient health literacy and compliance
• performing calculations required to compound, dispense, and administer medications
• administering medications
• evaluating appropriateness of medication dosing utilizing basic dosing principles
• providing point-of-care and patient-centered services
• conducting physical assessments
• preparing and compounding extemporaneous preparations and sterile products
• communicating with patients and other health care providers
• interacting with pharmacy technicians in the delivery of pharmacy services
• documenting interventions in patient records in a concise, organized format that allows readers to have a clear understanding of the content
• presenting patient cases in an organized format covering pertinent information
• billing third parties for pharmacy services

In accordance with its policies and procedures and using established criteria, a college or school may exempt applicable students from the requirements of certain introductory pharmacy practice experiences, provided that the college or school has assessed or otherwise validated that the student has achieved the desired outcomes of that experience through an alternative experience acceptable to the college or school.

Service Learning: Service learning experiences3 per se, although beneficial in developing desirable student attitudes and values, do not necessarily qualify as introductory pharmacy practice experiences unless they specifically include the activities described above. The college or school may use such experiences to complement the introductory pharmacy practice experiences. Colleges and schools using service learning activities, whether as part of the introductory pharmacy practice experiences or not, should ensure that, in general, such activities:
• meet a community need
• establish or enhance a relationship between the community and the academic institution
• help foster civic and professional responsibility and the development of a sense of caring for others
• are integrated into the required academic curriculum
• provide structured time to reflect on the service learning experience

---

3 Service learning is a structured learning experience with clearly defined objectives that combines performing service in the community with preparation, reflection, and discussion.
• enhance what is taught in the didactic curriculum by extending student learning beyond the classroom and into the community
• provide opportunities for interaction with other health professional students and practitioners
• attempt to balance the service that is provided and the learning that takes place

[Note: Appendix D provides the American Association of Colleges of Pharmacy document Pre-APPE Performance Domains and Abilities as guidance for assessment of student capabilities before entering advanced pharmacy practice experiences.]

Advanced Pharmacy Practice Experiences

Most of the time assigned for students in advanced pharmacy practice experiences should involve direct patient care. Direct patient care experiences should be of sufficient length to provide both continuity of patient care and an opportunity for the student to practice the competencies associated with that practice setting. The series of required and elective experiences should be coordinated to achieve, in composite, the experiential whole of the advanced pharmacy practice experiences. Where possible, practice experiences should be offered in academic health centers to provide students with the opportunity to encounter and participate in innovative health care delivery and treatment.

Colleges and schools are encouraged to identify or develop advanced pharmacy practice experiences that consistently allow students to perform activities that build upon those activities listed for the introductory pharmacy practice experiences. In general, and where legally permitted, activities in which students should participate during required advanced pharmacy practice experiences include, but are not limited to:

• practicing as a member of an interprofessional team
• identifying, evaluating, and communicating to the patient and other health care professionals the appropriateness of the patient’s specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration, and delivery systems
• consulting with patients regarding self-care products
• recommending prescription and nonprescription medications, dietary supplements, diet, nutrition, traditional nondrug therapies, and complementary and alternative therapies
• recommending appropriateness medication dosing utilizing practical pharmacokinetic principles
• administering medications where practical and consistent with the practice environment and where legally permitted
• identifying and reporting medication errors and adverse drug reactions
• managing the drug regimen through monitoring and assessing patient information
• providing pharmacist-delivered patient care to a diverse patient population
• providing patient education to a diverse patient population
• educating the public and health care professionals regarding medical conditions, wellness, dietary supplements, durable medical equipment, and medical and drug devices
• retrieving, evaluating, managing, and using clinical and scientific publications in the decision-making process
• accessing, evaluating, and applying information to promote optimal health care
• ensuring continuity of pharmaceutical care among health care settings
• participating in discussions and assignments regarding compliance with accreditation, legal, regulatory/legislative, and safety requirements
• participating in discussions and assignments regarding the drug approval process and the role of key organizations in public safety and standards setting
• participating in discussions and assignments concerning key health care policy matters that may affect pharmacy
• working with the technology used in pharmacy practice

Additional activities in which students should be able to participate during required community and hospital/health system advanced pharmacy practice experiences may include, as appropriate to the learning environment:
• preparing and dispensing medications
• managing systems for storage, preparation, and dispensing of medications
• allocating and using key resources and supervising pharmacy technical staff
• participating in purchasing activities
• creating a business plan to support a patient care service, including determining the need, feasibility, resources, and sources of funding
• managing the medication use system and applying the systems approach to medication safety
• participating in the pharmacy’s quality improvement program
• participating in the design, development, marketing, and reimbursement process for new patient services
• participating in discussions and assignments of human resources management, medication resources management, and pharmacy data management systems, including pharmacy workload and financial performance
• participating in the pharmacy’s planning process
• conducting a drug use review
• managing the use of investigational drug products
• participating in the health system’s formulary process
• participating in therapeutic protocol development
• participating in the management of medical emergencies
• performing prospective and retrospective financial and clinical outcomes analyses to support formulary recommendations and therapeutic guideline development

Additional activities in which students should be able to participate during required ambulatory care and acute/general medicine advanced pharmacy practice experiences may include, as appropriate to the learning environment:
• developing and analyzing clinical drug guidelines
• participating in the health system’s formulary process
• participating in the design, development, marketing, and reimbursement process for new patient services
• participating in discussions of human resources management, medication resources management, and pharmacy data management systems including pharmacy workload and financial performance

Elective Courses

Multiple opportunities should be provided throughout the curriculum for students to undertake pharmacy practice experiences designed to develop areas of personal interest, to expand their understanding of professional opportunities, and to achieve the outcomes of the curriculum.
**Introductory Pharmacy Practice Experience (IPPE)**

The Introductory Pharmacy Practice Experiences consist of five courses designed to focus on the early development of professional skills and competencies required prior to progressing to advanced pharmacy practice experiences.

**Introduction to Pharmacy Practice**
During each Introduction to Pharmacy Practice course, students spend two weeks (80 hours) in a community or institutional practice setting. Students are exposed to the role and responsibilities of the pharmacist in each practice and the importance of the pharmacist in patient care.

**Applied Therapeutics with Simulation**
During each Applied Therapeutics course, students are assigned patients at a local hospital to evaluate. Students interview patients, review medical records, and assess drug therapy. Students present patient cases to a faculty member or clinical preceptor as well as classmates in a small group setting. Students are also given the opportunity to provide care to a simulated acute care patient in the school’s human patient simulator laboratory.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Designation</th>
<th>Offered</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Community Pharmacy Practice I</td>
<td>PHRM 730</td>
<td>Year 1</td>
<td>2 hrs.</td>
</tr>
<tr>
<td>Introduction to Institutional Pharmacy Practice I</td>
<td>PHRM 731</td>
<td>Year 1</td>
<td>2 hrs.</td>
</tr>
<tr>
<td>Introduction to Community Pharmacy Practice II</td>
<td>PHRM 746</td>
<td>Year 2</td>
<td>2 hrs.</td>
</tr>
<tr>
<td>Applied Therapeutics with Simulation I</td>
<td>PHRM 749</td>
<td>Year 2</td>
<td>1 hr.</td>
</tr>
<tr>
<td>Applied Therapeutics with Simulation II</td>
<td>PHRM 769</td>
<td>Year 3</td>
<td>1 hr.</td>
</tr>
</tbody>
</table>
**Advanced Pharmacy Practice Experiences (APPEs)**

The Advanced Pharmacy Practice Experiences consist of 10 one-month rotations beginning in January of the third professional year and concluding in March of the fourth professional year. Courses are designed to focus on the development of professional skills required for contemporary pharmacy practice. During these courses, students spend one month (approximately 160 hours) in a variety of practice settings. Students are exposed to the role and responsibilities of the pharmacist in each practice and the importance of the pharmacist in patient care.

**Required Advanced Pharmacy Practice Experiences.** Students must complete 6 required experiences. Required experiences are:
- Advanced Institutional Practice
- Advanced Chain Community Practice
- Advanced Independent Community Practice
- Acute Care
- Ambulatory Care
- Drug Information (semester-long)

**Elective Experiences.** Students must select five (5) elective experiences from an approved list representing a variety of practice settings including cardiology, oncology, critical care, other medical subspecialties, as well as practice management and other specialty pharmacy practices.

**Course Credit.** Students earn four (4) hours of academic credit upon successful completion of each APPE course.