Facilities and Resources

For Standards 27-30:

Use a check ☑ to indicate the information evaluated to assess the standards in this section:

☑ Description of available square footage for all areas outlined by research facilities, lecture halls, offices, laboratories, etc. (27)
☑ Description and, where feasible, plans/architectural drawings of the physical facilities. (27)
☑ Description of the equipment for the facilities for educational activities, including practice-simulation areas. (27)
☑ Description of the equipment for the facilities for research activities. (27)
☑ Evaluation of the adequacy and appropriateness of resources needed for assessment activities. (27)
☑ Description of facility resources available for student organizations. (27)
☑ Description of facilities available for student studying, including computer and printing capabilities. (27)
☑ A statement attesting that the facilities meet legal and other standards as appropriate (e.g., animal facilities), with documentation attached (e.g., OLAW, USDA and/or AAALAC). (27)
☑ Data backup and security policies and procedures. (27)
☑ List of practices sites (classified by type of practices) with number of students served, interaction with other health professional students and practitioners, the number of pharmacy or other preceptors serving the facility, and their licensure status. (Sites used in the past academic year should be identified.) (28)
☑ Examples of agreements or statements of understanding with practice affiliates and the percent of all experiential sites with completed agreements. (28)
☑ Criteria used for selection of various types of practice facilities. (28)
☑ Capacity assessment (surplus or shortage) of the required and elective introductory pharmacy practice experiences (IPPEs) and advanced pharmacy practice experiences (APPEs) sites for present and, if applicable, for proposed future student enrollment. (28)

☑ Data on the use of library resources by pharmacy students and faculty. (29)
☑ Analysis of how well college or school holdings address the AACP Basic Resources for Pharmacy Education. (29)
☑ Library Collection Development Policy. (29)
☑ Description of the qualifications of the librarian(s) who act as primary contacts for the pharmacy program. (29)
☑ List of search databases available to faculty and students. (29)
☑ Description of computer technology available to faculty and students. (29)
☑ List of full text journals electronically available. (29)
☑ Description of courses/activities throughout the curriculum in which students learn about the educational resources. (29)
☑ Description of library orientation and consultation for faculty and preceptors. (29)
☑ Description of how remote access technologies and mechanisms that promote use of library information from off-campus sites by faculty, students, and preceptors compare with on-campus library resources. (29)

☑ A Financial Summary including an analysis of revenues and expenses for the past two and present academic year. (30)
☑ Five-year prospective financial pro forma for the program. (30)
☑ An analysis of federal government support, state government support, tuition, and private giving. (30)
☑ Description of how enrollment is planned and managed in line with resource capabilities, including tuition and professional fees. (30)
☑ An assessment of faculty contribution (%effort) to the program compared to financial support provided to the college or school of pharmacy for instruction. (30)

☑ Interpretation of the data from the AACP Surveys of Students, Faculty, Preceptors and Alumni.
☑ Raw data from the AACP Surveys of Students, Faculty, Preceptors and Alumni.
☑ Other documentation or data that provides evidence of meeting the standard.
Standard No. 27: Physical Facilities: The college or school must have adequate and appropriate physical facilities to achieve its mission and goals. The physical facilities must facilitate interaction among administration, faculty, and students. The physical facilities must meet legal standards and be safe, well maintained, and adequately equipped.

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<tr>
<th>Requirement</th>
<th>Yes</th>
<th>No</th>
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<td>The college or school has adequate and appropriate physical facilities to achieve its mission and goals.</td>
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<td>The physical facilities facilitate interaction among administration, faculty, and students.</td>
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<td>The physical facilities meet legal standards and are safe, well maintained, and adequately equipped.</td>
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<td>Physical facilities provide a safe and comfortable environment for teaching and learning.</td>
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<td>For colleges and schools that use animals in their professional course work or research, proper and adequate animal facilities are maintained in accordance with acceptable standards for animal facilities.</td>
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<td>Animal use conforms to Institutional Animal Care and Use Committee (or equivalent) requirements. Accreditation of the laboratory animal care and use program is encouraged.</td>
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<td>Space within colleges and schools dedicated for human investigation comply with state and federal statutes and regulations.</td>
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<td>All human investigations performed by college or school faculty, whether performed at the college or school or elsewhere, are approved by the appropriate Institutional Review Board(s) and meet state and federal research standards.</td>
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<td>Students, faculty, preceptors, instructors, and teaching assistants have access to appropriate resources to ensure equivalent program outcomes across all program pathways, including access to technical, design, and production services to support the college or school's various program initiatives.</td>
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<td>Commensurate with the numbers of students, faculty and staff, and the activities and services provided, branch or distance campuses have or have access to physical facilities of comparable quality and functionality as those of the main campus.</td>
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<td>Faculty have adequate office space.</td>
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<td>Faculty have adequate laboratory resources and space for their research and scholarship needs.</td>
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<tr>
<td>Computer resources are adequate.</td>
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<td>Laboratories and simulated environments (e.g. model pharmacy) are adequate.</td>
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<td>Access to study areas is adequate.</td>
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<td>Common space for relaxation and/or socialization is adequate.</td>
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<tr>
<td>The college or school has addressed the guidelines for this standard.</td>
<td>☑️</td>
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Describe how the program is meeting the Standard and Guidelines.

The UH College of Pharmacy facilities are spread across two locations, the Science and Research Building II (SR2) on the UH central campus and the Texas Medical Center Building (TMC) for a total of 83,000 square feet, as summarized below (27-A). The college's facilities meet all city, county, state, and federal standards. Each department within the college has appropriate equipment to support the needs of administration, faculty, staff, preceptors, and students that is up to date and well maintained.

The Science and Research Building II (SR2):
The SR2 was constructed in 1977. The College of Pharmacy occupies approximately 40,000 square feet of SR2. This building also houses an animal care facility in the basement and the Department of Biology and Biochemistry, College of Natural Sciences and Mathematics on the 2\textsuperscript{nd}, 3\textsuperscript{rd}, and part of 4\textsuperscript{th} floors. Space occupied by the College of Pharmacy in SR2 consists of the College of Pharmacy Administration Offices, the UHCOP Learning Resource Center (LRC), a large lecture hall/classroom that seats 140 students, a student computer center and a meeting/activity room, two classrooms for small group skills lab sessions, and several conference rooms. The large classroom is equipped with multimedia audiovisual equipment, including an LCD projector, VCR and DVD players, a video document camera, the Polycom Distance Learning System and a public address system. There is also a smaller Polycom Distance Learning mobile unit for conferences and smaller audience use. Wireless access is available to faculty, staff and students in both the SR2 and TMC buildings.

The college administrative offices on the first floor of SR2 have private offices for the Dean, the Associate Dean for Operations, the Associate Dean for Academic Affairs and Program Manager. The office of the Executive Vice Dean of Research is located on the 4\textsuperscript{th} floor in close proximity to research investigators and laboratories. The central business office houses the College Business Administrator, Research Administrator, Payroll Administrator, Department Business Administrator, Payroll Assistant, Grant Coordinator, and three Financial Assistants. In addition, there are private offices for the Director of Development, Director of Communications, Director of Assessment, Assistant Dean for Student and Professional Affairs, Directors of Admissions and Recruitment, Academic Advisors, Students Special Events Coordinator, Instructional Designer, and IT support staff. There are fully networked computers in each office and several more computers for secretarial use.

**Texas Medical Center Building (TMC):**

The TMC Building is situated in the Texas Medical Center about four miles west of the UH central campus. The building was completed in 1981 and has approximately 43,000 square feet. The TMC building contains a second office for the Dean, the offices and operations for the Assistant Dean for Experiential Programs, offices and laboratories for the Department of Clinical Sciences and Administration (CSA) and the remaining five PPS Department faculty in the Pharmaceutics area, and a facility for laboratory animals. Several major renovations have resulted in optimization of space. The building includes a large lecture room that seats 130 students on the second floor and a small lecture room, which can be partitioned into 2-3 small seminar rooms on the first floor. The large classroom is equipped with multimedia audiovisual equipment, including an LCD projector, VCR and DVD players, a video document camera, the Polycom Distance Learning System and a public address system. There is also a smaller Polycom Distance Learning System mobile unit for conferences and smaller audience use. The TMC facilities are maintained and managed by the University of Houston. Wireless access is available to faculty, staff and students in both the SR2 and TMC buildings.
The TMC building provides the college with a physical presence in one of the world's leading medical centers, which the college has been a member since 1983 with the University becoming a member of the TMC institutions in 2010. The TMC offers an excellent medical educational environment, and the students of the college have opportunities to complete pharmacy practice experiences (PPEs) in a multidisciplinary health care community.

The first two years of the professional program are held on the main campus (SR2 building). During PY3, a majority of classes are held at the TMC building with the PY4 seminar presentations and “on campus” days occurring at this location. The physical separation of the two buildings is one of the college’s main concerns. Most recently, the Polycom Distance Learning System has been implemented to facilitate joint department effort such as committee work and dialogue necessary for collaboration as well as facilitate student organization meetings between both campuses. Other challenges are presented by the separate campuses such as interaction amongst the PY1/PY2 students and the PY3/PY4 students, the convenient shared use of research equipment, college seminars, and journal club. With the addition of the new Ph.D. program in Pharmacy Administration and expansion in the number of faculty/staff/students in both CSA and PPS Departments, the current space for classrooms, laboratories and offices in both SR2 and TMC buildings has already reached full capacity and is no longer considered state-of-the-art and sufficient. The University is aware of the out-dated and inadequate space situation for the Pharmacy Professional and Graduate programs. The administration has engaged in serious discussions for dealing with space shortage for the college. As a stated goal of the College Strategic Plan 2004 and as written in the last ACPE accreditation self-study that the University considered the expansion of the College of Pharmacy in the TMC; however, UH has encouraged its colleges to come together in proximity and collaboration. Planning and programming are currently underway and a Tuition Revenue Bond proposal has been submitted to the Texas Legislature for a new pharmacy building (PC-1).

Facilities and Resources for Educational and Student Studying Activities

Both the SR2 and TMC Buildings contain dedicated computer labs for students to access the Internet, printers, software packages, and the classroom management system to support classes. The TMC facility also contains a computer-supported, modular pharmacy practice laboratory as well as a fully equipped sterile products laboratory. The modular pharmacy practice laboratory includes 30 model pharmacy benches, each containing a sink, a telephone, a torsion balance, computer and necessary tools to dispense non-sterile prescriptions. Four “mock” laminar flow hoods were added to allow this lab space to support the sterile products portion of the curriculum. This laboratory contains a refrigerator, and open and locked storage. The 600 square foot Class 100 sterile products laboratory has a non-porous ceiling, a stone tile floor, and stainless steel counters. There are six laminar airflow units. This room is stocked with needles, syringes, IVs, and other products necessary for sterile product preparation. Students in PY3 are divided into sections of 30-35 students each to use this lab. Half of the students work in a non-sterile practice lab, becoming familiar

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with the materials and receiving didactic instruction. The remaining fourteen students work in the sterile processing lab. Each student receives a total of 20 hours of hands-on experience by rotating through these facilities. The students earn a certificate in sterile products preparation by successful completion of these skills sessions. This CE Certificate is required by the Texas State Board of Pharmacy prior to preparing sterile products at experiential sites of the internship program.

UHCOP has contracted with PCCA located in Houston to provide the dosage form formulation labs to students in the college's professional programs. This facility has training stations for over 50 students, each fully equipped. In addition, there is a teaching stage equipped with a lectern and video camera that allows the instructor to demonstrate activities and have them displayed on video monitors throughout the lab. The college is fortunate to have such facilities available for use, as it would not be financially feasible to reproduce such facilities on campus.

Facilities and Resources for Research Activities

A majority of research space for the PPS Department faculty is located on half of the 4th floor and the entire 5th floor in the SR2 building totaling about 16,000 square feet of research space. The remaining one fifth of the PPS Department faculty, specifically those with Pharmaceutics emphasis, and CSA Department faculty requiring wet-lab research space are located in the TMC building. Their laboratories are dispersed on the 3rd, 4th, and 5th floors totaling approximately 9,000 square feet of research space. These research areas include individual faculty laboratories and shared core facilities. Research staff and postdoctoral and graduate students are situated within these research spaces. No separate office spaces are provided.

In the last five years, much of the obsolete research equipment has been replaced and new state-of-the-art equipment has been added. Several significant core facilities are now available in the college for conducting high quality microscopic imaging, high throughput drug screening, molecular drug design and modeling, small animal telemetric monitoring, animal behavioral assessment, cell flow cytometry, LC/MS/MS and HPLC, plus cell and tissue cryoprotection and slicing. A more detailed list of key research equipment available in the college is attached (27-B). Use of other big ticket equipment items, like NMR, X-ray crystallography, plus real time CAT, and MRI imaging capabilities are available on campus or at another TMC institution through arrangement and/or collaboration.

Facilities and Resources for Assessment Activities

The physical facilities for the Office of Assessment include offices for the Director and a full-time assistant. In addition, storage space for record keeping in locked files is provided. Mostly, the physical facilities are adequate the current staffing and activities. An exception is lack of a large room for testing but other UH colleges on campus have provided such rooms to the UHCOP as needed for special assessments.
Facilities and Resources for Student Organizations

**SR2:** A student lounge is available in Room 116 that contains microwaves, two refrigerators, tables and chairs, and snack and beverage machines. In addition, there is the campus Recreation and Wellness Center for students, faculty, and staff use. The University Center and UC Satellite, the latter is adjacent to the SR2 building are available to students for recreation with the former being available for student organizational meetings. Dedicated office space for the student organizations is available in Room 101 on the first floor of SR2. This office will contain desk space where the leadership members of the various student organizations can work and will also house the student organization file cabinets where respective organizational materials are held. Faculty advisors of the student organizations can reserve any of the large or small group classrooms through the online Room Reservation System for their respective meetings, depending on the size of the group. In addition, there are also University rooms available for student organization meetings as well.

**TMC:** A student lounge (Room 212) of approximately 800 square feet is furnished with microwave ovens, photocopier, tables and chairs, sofa, a large screen television, beverage vending machine, and computer stations equipped with internet access, basic software, and printers are available for student relaxation, socialization, and other organizational activities. Located outside of Rooms 212 and 122 are lockers for individual student storage. Student class and organizational meetings can also be held in the various classrooms available, depending on the size of the group. In addition, the TMC Commons is also available for student use.

Research on and Protection of Human Subjects

All research projects with human subjects conducted by faculty, staff, and students associated with the University of Houston, whether funded or unfunded, must receive approval from the Committees for the Protection of Human Subjects (CPHS). CPHS is responsible for reviewing and monitoring human subject research and its compliance with the federal Office of Human Research Protections (OHRP). The CPHS plays a primary role in protecting human subjects involved in research at University of Houston by (1) reviewing new and continuing human subject research protocols through the evaluation of risks and benefits to the human subjects; (2) reviewing the adequacy of the informed consent document, particularly as to its description of the risks and benefits; (3) observing and monitoring ongoing research as is necessary to protect human subjects; (4) investigating and acting on allegations of non-compliance; and (5) suspending or terminating approval of previously approved research when necessary.

Animal Research Facilities and Compliance
There are four animal facilities at the University of Houston serving the majority of the UH animal populations. Two of these facilities primarily serve the principal investigators in the College of Pharmacy. The central facility consisting of 25,996 gross square feet is located on the basement floor in the SR2 building, where most of the pharmacological and pharmaceutical sciences faculty members are situated. A second facility consisting of 2,356 net square feet is located on 4th floor at the Texas Medical Center Pharmacy building serving the pharmacy investigators residing in the TMC. All these facilities provide conventional animal housing. The central facility in the SR2 building has 8 individually ventilated, HEPA filtered, isolation cubicles, which may be used to house clean animals or for containment. The TMC Pharmacy facility utilizes ventilated racks and HEPA filtered laminar flow change stations, and is limited to the use of small rodent species, primarily rats and mice. As a result of recent faculty additions by the College and other UH academic units, both the SR2 and TMC facilities are struggling to meet faculty needs for adequate animal housing. In addition, construction activities intended to enhance current facilities have further limited the ability of the facility to provide adequate resources for animal based researchers. The University is currently examining the issue of animal facilities on campus and strategic initiatives are being put into place to further enhance animal services.

The UH Animal Care and Use Program has been fully accredited by AAALAC since February 1986. The most recent AAALAC site visit was conducted in March 2010 and as a result of that review full accreditation was renewed effective June 2010.

UH is registered with the United States Department of Agriculture, Animal and Plant Inspection Service as an approved research facility. The USDA inspects the animal facilities for compliance with the federal Animal Welfare Act at least annually on an unannounced basis. Noncompliance with USDA standards for the humane handling, treatment, and transportation of animals may lead to substantial fines and/or suspension of animal research activities (27-C).

In addition, the University holds an Assurance Statement on file with the National Institutes of Health Office of Laboratory Animal Welfare (OLAW). The Assurance number is A3136-01. Through this Assurance, the University of Houston states its allegiance to quality care and use principles in animal facilitated research and teaching. This document further codifies the University’s commitment to properly performed and supported animal facilitated biomedical investigation by following the Public Health Service Policy on Humane Care and Use of Laboratory Animals. An annual update report keeps OLAW abreast of any changes in the animal care and use program. In the Statement, it also documents the qualifications and current members of animal care management staff led by Dr. Terry Blasdel, and the Institutional Animal Care and Use Committee (IACUC) led by Dr. Laura Fishman. (27-D).

IACUC: In compliance with the federal Animal Welfare Act and for the Care and Use of Laboratory Animals, UH has a duly constituted IACUC that contains veterinarians, a community member, scientists, administrators, nonscientists, and a representative from the Office of Environmental Health and Safety. The basic functions of this committee are to inspect the animal facilities at least semiannually, review the program of animal care and use at least semiannually, submit
reports to the responsible institutional officials, review proposed use of animals in research and teaching, monitor this use after committee approval and establishment of a mechanism for receipt and review of concerns involving the care and use of animals at the institution.

Occupational Health Program: All persons caring for or utilizing animals in research or teaching are given the opportunity to enroll in an occupational safety and health program. The University of Houston offers such a program to all persons on an approved animal use protocol. The level of the program depends on the species of animal with which the investigator/teacher is involved. Therefore, those working with nonhuman primates are enrolled in a more vigorous program than those working with rodents because of the inherent dangers in working with that species. Annual reminders are sent to those personnel listed on approved protocols for enrollment options.

**Environmental Health and Safety**

The University of Houston maintains an Office of Environmental Health and Safety overseen by appropriate institutional committees to identify environmental safety hazards and control such hazards through protective equipment, hazard mitigation methods, program development, purchase of insurance, and other risk control and risk transfer techniques. The Office of Environmental Health and Safety conducts periodic inspections of all University facilities to ensure compliance and provides biosafety, chemical safety, and radiation safety trainings.

**Data Backup, Recovery, and Security Policies and Procedures**

The college maintains restorable backups of critical systems and data at locations away from the original system. Alternate means of communication and information delivery are accessible to faculty, staff, and students. The college and the university maintain adequate security systems for data. (7-B).

**Quality Improvements:**

The University is undergoing major strategic planning and facility improvement initiatives of animal facilities to support research initiatives.

We are investigating the possibility of obtaining additional space to accommodate unfilled faculty lines that require additional office, laboratory and vivarium space. In addition, we are investigating the possibility of relocating departments within the TMC facilities to provide needed space for students, faculty and staff.
The physical facilities support the mission and goals of the program. Teaching space supports the needs of the curriculum (e.g., small group learning rooms). The student lounge and study space are adequate and readily accessible. The facilities allow for good interaction among faculty, students, and administrators. The college or school has approvals for animal and human research facilities (if applicable). Full-time faculty each have designated space to work and off-site faculty have dedicated space to work and prepare. Space is available for faculty and administrative meetings and private areas are available for closed conferences (e.g. with students). The facilities are equipped to support contemporary educational technologies and educational methodologies used in the program. Research facilities are equipped with appropriate technology.

The facilities are generally satisfactory, but a few areas are in poor repair, inadequately equipped, or are furnished with outdated equipment or technology. The college or school has a plan and is in the process of addressing all issues related to not meeting the requirements of this standard.

Some facilities are unsafe for students, faculty and staff. Classrooms or faculty areas are overcrowded. The student lounge and study space are inadequate or not readily accessible. The college or school has no approvals for animal facilities or human research (when required). Full-time faculty have inadequate or no designated space to work or off-site faculty have no dedicated space to work and prepare. No space is available for faculty and administrative meetings or no private areas are available for closed conferences (e.g. with students). The facilities are not equipped to support contemporary educational technologies and educational methodologies used in the program. In general, the research facilities are poorly or inappropriately equipped. The college of school has no long-term plans to assess the requirements for physical facilities by the program.
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.

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<th>Statement</th>
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<td>The college or school collaboratively advances the patient-care services of its practice sites.</td>
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<tr>
<td>The college or school establishes and implements criteria for the selection of an adequate number and mix of practice facilities.</td>
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<tr>
<td>The college or school establishes and implements criteria to secure written agreements with the practice facilities.</td>
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<td>Before assigning students to a practice site, the college or school screens potential sites and preceptors to ensure that the educational experience would afford students the opportunity to achieve the required competencies.</td>
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<td>At a minimum, for all sites for required pharmacy practice experiences and for frequently used sites for elective pharmacy practice experiences, a written affiliation agreement between the site and the college or school is secured.</td>
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<td>The college or school identifies a diverse mixture of sites for required and elective pharmacy practice experiences.</td>
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<td>The academic environment at practice sites is favorable for faculty service and teaching.</td>
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<tr>
<td>The college or school has addressed the guidelines for this standard.</td>
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**Describe how the program is meeting the Standard and Guidelines.**

The quality of the experiential program has been excellent as reported from online evaluations, employers, and the students. Quality of the clinical facilities is attained by careful selection of sites and maintained through constant communication and interchange with preceptors. Mid-rotation evaluations and regular contact among the Assistant Dean for Experiential Programs, experiential directors, and preceptors maintain quality and consistency among sites and allows intervention to correct problems or inadequate student performance. Preceptor training sessions acquaint preceptors with changing objectives and new competencies being integrated into specific rotations.

Contact is made with all sites by a coordinator or the Assistant Dean for Experiential Programs prior to establishment of new rotations or re-establishment at a previously participating site. As noted above, an extensive visit is usually made for any new primary rotation site. For sites used infrequently, initial contact may be made by telephone and site visits may follow anytime a problem exists, or the directors, Assistant Dean for Experiential Programs, or preceptor, feels it is warranted. Continuous communication is made with preceptors through midterm and final evaluation for each student for each rotation; and by phone, email, and preceptor continuing education sessions. The Assistant Dean for Experiential Programs and the directors (relative to their responsibilities) attend annual meetings of state and national professional pharmacy organizations to stay abreast of new developments and changes in experiential education, and to meet with preceptors. In addition, the JCIP meets quarterly to discuss experiential and program issues, and to collaboratively coordinate internship schedules, evaluation forms, and documents. All students complete an evaluation of both the site and preceptor following each rotation. These evaluations are reviewed and negative comments are investigated through the primary contact or as necessary on-site by the coordinator. Annually, these evaluations are analyzed statistically, for trends and identification of strengths and weaknesses of our program.
While the University of Houston does not have a university hospital, the Texas Medical Center with its two medical schools and several outstanding hospitals provides an excellent setting for experiential education. Other pharmacies and institutional settings in the greater Houston area, as well as those located in other parts of the state, and in federal facilities through the country, provide additional training opportunities.

At this time, we have adequate sites for our current enrollment; however, we share most of our sites with other Texas colleges of pharmacy. With increased enrollment by all colleges of pharmacy including those newly created, we will experience continual pressure for quality sites. We anticipate that the large pool of recent graduates with education at the Doctor of Pharmacy level, along with the changing practice of pharmacy, will provide further opportunities for quality sites in the future.

The administrative structure for Experiential Programs Office at the University of Houston College of Pharmacy is under the direction of the Assistant Dean for Experiential Programs. The Experiential Programs Office is based in the TMC building and is supported by a Director for IPPE, a Director for institutional based APPE, a Director for community based APPE and a secretary. This office supports and handles all practice program phone calls, mail, student files, student intern applications, student parking, experiential manuals, experiential site affiliation agreements, and other miscellaneous office duties. An experiential database was developed for assignment of students to appropriate sites and preceptors. On-line evaluations are now used to identify strengths and weaknesses of the experiential program, as well as individual sites and preceptors. Currently, E*Value™ has been purchased and migration of the current database and functionality is taking place.

List of Practice Sites

All students are required to complete four weeks of IPPEs in the summer following PY2, and complete seven, six-week rotations of APPEs, for a total of 1,920 internship hours. Some of the IPPE sites are the same as those used for APPEs, such that the IPPE sites are only used for the first 12 weeks of the internship year (i.e. three blocks of 4 weeks each). After that 12 week period, these same sites are used for 6-week APPE courses. A list of IPPE assignments for the Class of 2011 is attached (6-A; 6-B).

The APPE sites consist of Advanced Community Pharmacy, Advanced Hospital Pharmacy, Internal Medicine, Ambulatory Care, two clinical selective rotations, and one elective that may be either clinical or non-clinical. These rotation sites offer services at hospitals, poison control centers, managed care facilities, ambulatory care clinics, long-term care facilities, home care, nuclear pharmacies, consulting pharmacy, government agencies, professional organizations, and community pharmacies. Community pharmacy sites encompass independent, compounding, mail order, and chain pharmacies. All sites providing required rotations and clinical elective rotations have an adequate
number of patients to provide an excellent practice experience for students. Elective rotations such as Legal and Regulatory Affairs are offered.

The Assistant Dean for Experiential Programs and the experiential coordinators are continuously developing and evaluating new experiential courses, sites, and preceptors. Clinical sites are available for most subspecialty areas in the Texas Medical Center, and in some institutions throughout the Houston metropolitan area. To provide increased opportunities for graduates and improve the level of pharmacy patient care services, the Experiential Programs staff strives to create sites in other parts of the state as well as the Nation.

For the Class of 2011, there were 194 active sites, precepted by 345 active preceptors on record. Overall, including sites and preceptors not used this year, the college currently has 789 available sites and 1,476 available preceptors maintained on record (28-A).

Practice Site Agreement

Affiliation agreements are maintained for all experiential practice sites. Tracking of these affiliation agreements has been improved to ensure that agreements are created or updated in a timely manner, working closely with the college’s Business Office in processing and maintaining of these agreements. Copies of standard affiliation agreements for both IPPEs and APPEs are attached (28-B; 28-C). In addition to the standard agreement, some facilities chose to use affiliation agreements that they create. Since the college must have an affiliation agreement to pay a site for taking students, all hospital, ambulatory care sites, and sites where Internal Medicine or clinical electives are conducted have affiliation agreements. The college also has affiliation agreements with all of the chain drug stores, where Community Pharmacy APPE and the IPPE are completed. Only a few privately owned community pharmacy sites may not have affiliation agreements.

Criteria for Experiential Site Selection

Experiential sites are selected by a variety of mechanisms. Many of the sites have a long-term relationship with the UH College of Pharmacy. These sites participate almost continually with few minor breaks in precepting students, only when there are staff changes or shortages. Most sites are identified and selected by the coordinators and the Assistant Dean for Experiential Programs. When potential practice sites at various institutions and community pharmacies are identified, or when contacted by appropriate volunteer preceptors such as Directors of Pharmacy or skilled clinical pharmacists, or when contacted by those especially outside the Houston area as suggested by students who seek an opportunity in a specific geographic area or in a specialized area of interest, the Assistant Dean for Experiential Programs and/or experiential coordinators will recruit preceptors by taking the following general steps.
• The preceptor is interviewed and/or the site is visited to determine whether the preceptor has the motivation, interest, and practice setting to provide the quality experience and mentoring needed to facilitate the student’s achievement of desired competencies.

• The site is evaluated for a sufficient number of patients to provide a quality experience for the student. For clinical sites, the presence of other health care professionals and students practicing in an interdisciplinary setting (i.e. multidisciplinary rounds) is preferred.

• If the preceptor and sites are suitable, and if the preceptor has current preceptor certification, the preceptor is placed on the list of preceptors.

• If the preceptor is not currently certified as a preceptor, but meets all the requirements listed in Texas Pharmacy Rules §283.6, the college facilitates the application and provides a three-hour preceptor CE training program.

• Once the preceptor’s availability is determined, terms of an agreement are finalized, and a student is assigned, the appropriate internship manual is sent and an experiential coordinator assures that instructions, goals, and objectives are understood.

• Once the student begins a rotation, the coordinators and/or Assistant Dean for Experiential Programs maintains contact with the preceptor and student, and reviews midterm evaluations to determine that the student is progressing.

• Preceptors are given feedback concerning their effectiveness and are given suggestions, when problems are identified.

For providing clinical rotations, an interdisciplinary experience in a setting with other health care professionals and students is preferred. To be in compliance with State Board requirements for internship hours, the student to preceptor ratio of 1:1 for dispensing activities, and annual requests for a 3:1 ratio for non-dispensing activities are maintained. Thus, all Community Pharmacy and Hospital Pharmacy rotations have a 1:1 preceptor to student ratio and for all other rotations, the college prefers a 2:1 student to preceptor ratio. This allows students to learn not only from their own patients and experiences, but those of the other students as well. For drug information rotations, the most common student to preceptor ratio is 3:1.

In order for a student to receive internship hours by the Texas State Board of Pharmacy, the pharmacy preceptor must be either a pharmacist that is both licensed and certified as a preceptor in the State of Texas or a pharmacist practicing in a federal institution. Additionally, the preceptor must have practiced in the specific practice area (i.e., community pharmacy, hospital pharmacy, or clinical specialty, etc.) for at least one year. An exception is that a pharmacy resident may precept students after six months in an ASHP accredited residency. All preceptors are required to maintain pharmacy continuing education according to the Texas State Board of Pharmacy which is provided through the college in the form of an annual preceptor orientation and training session.
Pharmacies and institutions serving as training sites must be in good standing with all licensing agencies. All of the college’s preceptors are licensed pharmacists. APPEs in all sites in Texas are under Texas certified preceptors, who meet all requirements of the Texas State Board of Pharmacy. These include requirements that the preceptor and site shall not have received a citation from the State Board for at least the last 3 years. In addition, the college only uses preceptors who our experiential directors who are proficient in the area of practice, have good evaluations, and are positive toward the college and its students. Sites outside of Texas are primarily in federal or tribal facilities, where the preceptor is licensed in at least one U.S. state; the preceptor in these settings is either a Veterans Administration pharmacist or a pharmacist commissioned officer of the U.S. Public Health Service.

The Experiential Programs Office maintains evaluations of students, preceptors, and sites. Reports and analysis of these allow identification of strengths and weaknesses in the experiential program. Furthermore, complaints from students and preceptors are immediately investigated, and action taken, if needed. The Assessment Office also surveys students concerning their perceived achievement of the course competencies for each experiential course.

**Practice Site Capacity Assessment**

UHCOP requests preceptor and site availabilities at least seven months before the beginning of the Internship Year. The capacity assessment (surplus or shortage) of the required and elective IPPEs and APPEs is conducted prior to student enrollment (28-D; 28-E). All students are assigned to APPEs for the year, at least two months before the beginning of the Internship Year; thus, April 15th each year is the target date for distributing student assignments. With six colleges of pharmacy in Texas, it is necessary that we assign students to sites and preceptors also used by other colleges of pharmacy. It is also necessary that the Experiential Programs office coordinate student calendars, evaluation forms, and expectations of all six colleges of pharmacy in the state. This is done through JCIP, a collaborative group of experiential associate deans and directors of experiential programs. One problem concerning maintenance of excess capacity was caused by a process proposed by the Texas Society of Health-System Pharmacists (TSHP) and agreed to by JCIP, whereby each college will request of sites the number of “slots” they need for the upcoming experiential year; at a designated date the site will return available slots to the requesting colleges; then, the colleges will assign their students, and release unused slots back to the facility, so that other colleges could assign students to the unused slots. Essentially, this means that UHCOP excess capacity is jointly held by all six colleges, and on an as-needed basis, the Experiential Programs Office must contact facilities when additional slots are needed to assign students when preceptors move or otherwise become unavailable. This has not caused a significant problem, since we are still able to assign all students, without forcing them to relocate to other parts of the state for their APPEs or IPPEs. All IPPEs are completed in the Houston area. For APPEs students may request experiences outside the Houston area, and in almost all cases, we are able to accommodate these requests for other locations.
Quality Improvements:

Currently, E*Value™ has been purchased and migration of the current database and functionality is taking place. E*Value™ will allow the experiential program to track changes with experiential scheduling, enable preceptors to complete evaluations on-line, and allow feedback to be sent to the sites and preceptors in a timely manner. In addition, data regarding site visits, affiliation agreements, as well as curricular requirements for experiential will be gathered with this software tool, and allow the experiential program to analyze data collected for quality control and improvement. The experiential programs team has been actively visiting sites throughout Houston, Dallas, and surrounding areas in the state who are currently taking UHCOP students. Data gathered from site visits will be utilized for quality control.

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<tr>
<td>• Practice sites have enough variety and scope to meet curricular needs.</td>
<td>• The college or school has practice sites and is trying to develop or improve relationships.</td>
<td>• There are too few advanced practices rotations or preceptors to meet curricular needs (i.e., not enough sites for all students, too many students per rotation or preceptors have no periods of time without students on a rotation).</td>
</tr>
<tr>
<td>• The college or school has enough practice facilities to meet the required and elective advanced pharmacy practice experiences for all students.</td>
<td>• Most, but not all of the practice sites have signed affiliation agreements.</td>
<td>Collectively, the practice sites have insufficient variety and scope to meet curricular needs.</td>
</tr>
<tr>
<td>• The college or school has a plan for reviewing practice sites and an evaluation process exists to assure annual contact with every site.</td>
<td>• The college or school has a plan and is in the process of addressing all issues related to not meeting the requirements of this standard.</td>
<td>The college or school does not have enough practice facilities to meet the required and elective advanced pharmacy practice experiences for all students.</td>
</tr>
<tr>
<td>• The college has a procedure to investigate problems noted on student assessments of the site or the preceptor.</td>
<td></td>
<td>The college or school has no plan for reviewing practice sites or no evaluation process exists to assure annual contact with every site.</td>
</tr>
<tr>
<td>• Students have opportunities to observe and learn regardless of the level of the practice experience.</td>
<td></td>
<td>The college has no procedure to investigate problems noted on student assessments of the site or the preceptor.</td>
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<tr>
<td>• Written affiliation agreements established between the institution and school are confirmed by the experiential director.</td>
<td></td>
<td>Written affiliation agreements established between the institution and school are not confirmed by the experiential director.</td>
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<tr>
<td>• The preceptors are able to maintain control of their schedules.</td>
<td></td>
<td>The preceptors are unable to maintain control of their schedules.</td>
</tr>
<tr>
<td>• Collectively, rotations occur in diverse practice settings (community, institutional, etc.), and cover diverse patient populations in terms of disease state, race, age, gender, cultural background.</td>
<td></td>
<td>Most rotations occur in uniform settings (e.g., all community, etc.) or cover similar patient populations in terms of disease state, race, age, gender, cultural background.</td>
</tr>
<tr>
<td>• College or school assessment tools and library facilities are accessible from the practice sites.</td>
<td></td>
<td>The site has no access to the college or school assessment tools or library facilities.</td>
</tr>
<tr>
<td>• Collectively, the sites offer not only required, but also elective rotations.</td>
<td></td>
<td>Collectively, the sites offer no elective rotations.</td>
</tr>
<tr>
<td>• The college or school actively collaborates with practice sites to advance patient-care services.</td>
<td></td>
<td>The practice site is not conducive or amenable to faculty service and teaching.</td>
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☑ Meets the Standard  ☐ Partially Meets the Standard  ☐ Does Not Meet the Standard
Standard No. 29: Library and Educational Resources: The college or school must ensure access for all faculty, preceptors, and students to a library and other educational resources that are sufficient to support the professional degree program and to provide for research and other scholarly activities in accordance with its mission and goals. The college or school must fully incorporate and use these resources in the teaching and learning processes.

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<td>●</td>
</tr>
<tr>
<td>The college or school fully incorporates and uses library and other educational resources in the teaching and learning process.</td>
<td>●</td>
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<tr>
<td>The college or school has addressed the guidelines for this standard.</td>
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Describe how the program is meeting the Standard and Guidelines.

The Physical Libraries

The college has a depth of library resources not seen in many other schools of pharmacy. Recently the dedicated UH Pharmacy Library was relocated to the main university library in response to space constraints faced by the college as well as budgetary shortfalls experienced by the University. This transfer of library materials was also a natural progression of the trend toward virtual or electronic information resources where the physical location of user or material becomes largely inconsequential. The staff and physical holdings of the Pharmacy Library were moved to the University's M.D. Anderson Library. The College of Pharmacy continues to liaison with the UH Library System through an American Library Association (ALA) accredited librarian (29-A).

The UH Library System comprises five libraries located on the UH Main Campus. Of particular interest to members of the College of Pharmacy are the M.D. Anderson Library, the Optometry Library, and the O'Quinn Law Library. The M.D. Anderson Library, the UH System's flagship library, is located within short walking distance from the College of Pharmacy's building. In 2006, the M.D. Anderson Library completed its $40 million capital expansion project that added 170,000 square feet of floor space. The M.D. Anderson Library currently occupies 527,000 square feet of floor space and houses over 2.4 million volumes, both in print and in electronic media. The M.D. Anderson Library also offers over 260 networked computer workstations and 38 individual group study rooms for students. The Optometry Library and O'Quinn Law Library, while primarily serving the College of Optometry and Law Center, respectively, have many health-care related holdings, which are often utilized by members of the College of Pharmacy. A review of the AACP Basic Resources for Pharmacy Education found that the UH Library System contained 73% of the suggested titles within its holdings (29-B).

An invaluable resource in the College of Pharmacy's Library Resources is the Houston Academy of Medicine – Texas Medical Center (HAM-TMC) Library. This resource is supported by a consortium of academic and health-care institutions (29-C) located within the Texas Medical Center (TMC) and the Houston area. The physical facility, which comprises 76,500 square feet of space and 357,000 books and journal volumes, is located less than half a mile from the
The TMC Library provides access to 9,101 electronic journals, 172 databases, 5,167 electronic books, and over 220,000 bound journals.

**Library Orientation**

As part of the University’s new faculty orientation, representatives from the library provide new faculty members information on the library system. Entering Doctor of Pharmacy students receive a video tour as part of College’s 4-day new student orientation.

**Remote Access to Library Resources**

Remote access to library resources, electronic journals, and databases is integral in meeting the demands of supporting research, educating students and other stakeholders, and providing patient-centered care. Members of the College of Pharmacy have extensive remote access to these resources outside the physical presence of the libraries. All our faculty, staff, and students have remote access privileges to M.D. Anderson Library resources. Plus, faculty and students also have remote access to the HAM-TMC Library resources.

**Educational Technology Available to Faculty & Students**

The College of Pharmacy provides extensive educational technology support to the faculty, staff, and students. Appendix 29-D outlines the education technology supported by the college. The college maintains computer labs for exclusive use by students enrolled in the professional program, graduate, and BSPS programs in the SR2 Building (62 workstations) and the TMC Building (18 workstations). The TMC building has additional workstations in the student lounge (8) and Contemporary Pharmacy Practice Laboratory (30). The college’s two large classrooms are equipped with a podium set-up consisting of a primary computer workstation, laptop connection, document camera, and wireless lavaliere microphone, all of which are integrated into the classrooms’ sound and dual LCD projector A/V system. Additionally, a number of smaller classrooms and meeting rooms are equipped with ceiling-mounted LCD projectors. Laptops, Tablet PCs, Student Response System, and video, still and portable document cameras are available for checkout by faculty, staff, and students. Faculty, staff and students can access both UH and TMC virtual libraries via the wireless network in both SR2 and TMC buildings.

The college employs a full-time Instructional Designer to introduce and train faculty on instructional technology, assist faculty with the adoption of classroom-based educational technology, and facilitate delivery of online course material. Over the past four years, this individual has increased the number of faculty utilizing Blackboard Vista to 100% for courses in the professional program along with strengthening the breadth of the educational activities delivered through the Blackboard Vista Learning Management System (LMS). Furthermore, the instructional designer has
assisted with the deployment of ARS (aka “clickers”) across a number of courses in the professional curriculum as part of an effort to encourage active learning in the classroom.

The college purchases and/or licenses four online drug information sources for the professional students: Clinical Pharmacology, Lexi-Online, Facts and Comparisons E-Answers, and Micromedex. Each of these resources is available to the students both on and off campus. The college also purchases the Lexi-OnHand Lexi-SELECT Suite for PY3 and PY4 students to install on their handheld devices. PY1 and PY2 students have access to mobile editions of Clinical Pharmacology and Micromedex. The UH Library System maintains licenses for both AccessPharmacy and StatRef, thus providing access to electronic editions of numerous textbooks and reference books. Appendix 29-E provides a detailed list of the research and scholarly databases available to the college's users through the UH Library System and HAM-TMC Library.

Library & Educational Technology Utilized Throughout Curriculum

Utilization of the library resources occurs throughout the PharmD curriculum. PY1 students receive hands-on instruction how to conduct searches of Medline and tertiary references in PHAR 4271–Pharmacy Practice II, augmented with a session in PHAR 4251–Pharmacy Skills Program II. In PHAR 5257–IPPE II and Professional Development students utilize library resources as part of the Literature Evaluation section of the course.

The major online drug information resources mentioned earlier are utilized across multiple courses. Examples include the creation of a P&T drug monograph in PHAR 4271, medication write-ups and drug interaction screening in the Community Pharmacy Practice Lab portion of PHAR 4251, and case preparation in the skills labs associated with the Therapeutics sequence (PHAR 5280, 5581, & 5582).

Comments:

The college participates in the AACP Crosswalk surveys annually. A review of the survey data (2-C, total n for all surveys=557) from graduating students, faculty, and preceptors for questions relating to Standard 29 found the vast majority felt, as indicated by responses of Strongly Agree or Agree, the college had adequate library and education technology resources available both on and off-campus. The one exception was preceptors whose positive response to the questions just breached the 50% threshold. This was not unexpected, as we have previously received requests from preceptors seeking remote full-text access to the e-journal holdings of the HAM-TMC Library, which is not currently available due to licensing restrictions. The IT Committee has been working with UH Library Staff and college administrators to develop a method by which preceptors awarded Adjunct Faculty Status will be able to obtain a HAM-TMC Library card with remote access. One other area of concern is the college’s Library Collection Development Policy. We have been effectively functioning without one to this point in time. Instead, the IT Committee collaborates with the
Pharmacy Librarian on individual resource issues and the Pharmacy Librarian has polled the faculty every one or two years concerning journal subscriptions or reference text needs. The college’s IT Committee will create a formalized Library Collection Development Policy (29-F).

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<tr>
<td>✔ Students and faculty have access to hardcopy or on-line journals and references.</td>
<td>✔ The holdings meet programmatic and scholarly needs, but are not always readily or easily accessible (e.g., the library has limited access hours).</td>
<td>✔ Materials ordered through Inter-library loan arrive after they are needed.</td>
</tr>
<tr>
<td>✔ Preceptors and students on advanced-practice rotations have access to library resources.</td>
<td>✔ The college or school has a plan and is in the process of addressing all issues related to not meeting the requirements of this standard.</td>
<td>✔ Faculty report that journals for their discipline are not available or that they must purchase their own subscriptions.</td>
</tr>
<tr>
<td>✔ Library skills are taught, and library use is integrated into teaching-and-learning processes.</td>
<td>✔ Customary references used by practitioners are available to students on-site.</td>
<td>✔ Students have inadequate or no access to hardcopy or on-line journals and references.</td>
</tr>
<tr>
<td>✔ Customary references used by practitioners are available to students on-site.</td>
<td>✔ Technology is available to students.</td>
<td>✔ Preceptors and students on advanced-practice rotations have no access to library resources.</td>
</tr>
<tr>
<td>✔ Holdings are of sufficient breadth and depth to support teaching, learning, research and other scholarly activity.</td>
<td>✔ The college or school has a plan and is in the process of addressing all issues related to not meeting the requirements of this standard.</td>
<td>✔ Library skills are not taught or library use is not integrated into teaching-and-learning processes.</td>
</tr>
<tr>
<td>✔ Technology is available to students.</td>
<td></td>
<td>✔ Technology is not available to students.</td>
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Standard No. 30: Financial Resources: The college or school must have the financial resources necessary to accomplish its mission and goals. The college or school must ensure that student enrollment is commensurate with its resources.

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<tr>
<td>The college or school has the financial resources necessary to accomplish its mission and goals.</td>
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<tr>
<td>The college or school ensures that student enrollment is commensurate with its resources. Enrollment is planned and managed in line with resource capabilities, including tuition and professional fees.</td>
<td>●</td>
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<tr>
<td>Tuition for pharmacy students is not increased to support unrelated educational programs.</td>
<td>●</td>
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<tr>
<td>The college or school operates with a budget that is planned, developed, and managed in accordance with sound and accepted business practices.</td>
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<tr>
<td>Financial resources are deployed efficiently and effectively to:</td>
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<td>• support all aspects of the mission, goals, and strategic plan</td>
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<tr>
<td>• ensure stability in the delivery of the program</td>
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<td>• allow effective faculty, administrator, and staff recruitment, retention, and development</td>
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<tr>
<td>• maintain and improve physical facilities, equipment, and other educational and research resources</td>
<td>O</td>
<td>●</td>
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<tr>
<td>• enable innovation in education, research and other scholarly activities, and practice</td>
<td>●</td>
<td>O</td>
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<tr>
<td>• measure, record, analyze, document, and distribute assessment and evaluation activities</td>
<td>●</td>
<td>O</td>
</tr>
<tr>
<td>• ensure an adequate quantity and quality of practice sites and preceptors to support the curriculum</td>
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</tr>
<tr>
<td>The dean reports to ACPE, in a timely manner, any budget cuts or other financial factors that could negatively affect the quality of the professional degree program or other aspects of the mission of the college or school.</td>
<td>●</td>
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</tr>
<tr>
<td>The college or school ensures that funds are sufficient to maintain equivalent facilities (commensurate with services and activities) across all program pathways.</td>
<td>O</td>
<td>O</td>
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<tr>
<td>The college or school has addressed the guidelines for this standard.</td>
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Describe how the program is meeting the Standard and Guidelines.

The financial resources of the college are composed of four categories, namely, state funding including premium tuition, local funding with designated tuition, differentiated designated tuition (DDT) and fees, research grants, and gifts with percentage distributions of 50%, 18%, 29%, and 3%, respectively. The resources available in the past five years, from September 1, 2005 to August 31, 2009 are summarized with these categories (30-A).

Since the last accreditation visit, the college's total budget increased to $13.4 million in FY 2009-2010 from the previous figure of $8.89 million in FY 2003-2004. This increase was mainly due to an increase in tuition revenue. These increases have directly benefited the students in the professional program. The college financial addendum projects the budget through FY 2012, however, changes are expected in this document due to State budget deficits. (30-B)

The college had the resources necessary to deliver the program and achieved its stated mission during these five years. No budget cuts or other financial factors negatively affected the quality of the program or other aspects of the missions in FY 2005-2009.
However, beginning in 2009, the college and university faced budget cuts due to the downturn in the economy. The projected reduction in weighted tuition formula funding (per student semester credit hour (SCH)) by the Texas Higher Education Coordinating Board was drastically reduced from 9.0 in 2003-2004 to 3.79 to be in effect in FY 2010-2011. In addition, the State and University of Houston mandated State budget cuts were 5% in FY 2010, 10% in FY 2011, as well as an additional estimated 10-25% for FY 2012 and FY 2013. The college will face challenges to make further progress toward attaining its goals.

The enrollment in the professional program was established and managed by the college in harmony with the formula funding derived from the State of Texas. The college increased the enrollment from 100 to 130 students in FY 2005–2008 according to the agreement among pharmacy schools in Texas to increase the supply of pharmacists, and returned to 110 students in FY 2010.

As previously communicated to ACPE, the degree program of Bachelor of Science in Pharmaceutical Sciences (BSPS), established in FY 2008, received additional resources from the university to hire three faculty. Due to economic circumstances the decision was made to focus the college’s resources on the professional and graduate programs. As a result, the faculty voted in FY 2009-2010 to inactivate the BSPS program. No new students have been accepted and all BSPS students will graduate by May, 2011.

Potential solutions in response to these resource reductions need to be proposed and initiated for maintaining continuous quality improvements of professional and graduate programs. The Dean will continue to negotiate with the University Provost to increase funding for the college. The Dean is actively seeking a modification from the state to increase the return rate.

The college operates with a budget that is planned, developed, and managed in accordance with sound and accepted business practice. The faculty involvements in the process included responding to the chair’s solicitation in annual budget requests to the college, and receiving notification of the college annual budget at the college faculty meeting. The transparency of the budgetary operation procedure has been sufficient at the college level. The Office of Internal Audits at the University level audited the college in FY 2009, and found no major concerns, and will have no audit for the next five years. Budget planning, development and distribution at the department level and in the office of Executive Vice Dean for Research is in the process of increasing transparency and improving business processes.

Financial resources have been deployed efficiently and effectively in support of all missions, goals and objectives, and have been provided in accordance with the plan of the college. The resource for delivery of the experiential program has been stabilized using tuition returned to the college.

The resource deployments to allow faculty, administrator and staff recruitment and retention have been effective and efficient, as demonstrated with the successful recruitments with competitive salaries and start-up package in tenured or tenure-track positions, but less competitive in clinical positions. Faculty retention has not been a concern in these five
years. However, the resource for faculty and staff development needs to be improved. No resources were clearly
designated for faculty and staff development including sabbatical leave, and no established policies or procedures were
put into place for individual faculty and staff to acquire the resources when needed.

Although extramural development funding has increased over the past three years, the majority of these funds are
foundation research grants and student scholarships. (30-C) Our grants, contracts and royalty income directly benefit
the college. The college’s support from research grants is strong and has held generally steady over the past five years
(30-A, 30-D). New faculty hires have brought with them substantial federal support, more than offsetting the loss of two
NIH-funded faculty in 2006-2007. We expect faculty of this caliber to maintain and even increase their federal funding.
Federal funds awarded to the college include awards from the NIH, the AHRQ, the NSF, and the DoD. These federal
awards are especially advantageous due to their size, duration and high indirect cost return. Year-to-year fluctuations in
total research dollars are in a normal range, typical for research universities. Funding from the state, such as the
Advanced Research Program (ARP), is more variable and strongly subject to state political and economic factors. The
college does not place any reliance upon this source of research funds. It is worth noting that competition for limited
state funds is extremely intense, and it speaks well of our faculty to have received two of these awards in FY 2008.

The procedures currently used to prepare and manage the operating budget are appropriate and adequate,
inasmuch as they follow established guidelines of the University of Houston System Board of Regents.

The operating budget of the college is prepared with the following procedures: University Administration allocates to
the college a portion of state funds generated through formula funding. The Dean meets with the Provost to present
college needs and to request the level of funds to be allocated to the college. Once the level of state funding to the
college is decided, the Dean along with the College Business Administrator (CBA) project the level of additional funding
available to the college (i.e. gifts, research, special funds, etc.). When the total amount of funds available has been
determined, the Dean, after consultation with the College Executive Leadership Team and the College Budget Advisory
Committee, allocates funds within the college. All program and budget decisions are made by the Dean, according to the
FTE and critical needs. The faculty provides the respective department chair with input regarding the needs of
departmental resources (i.e. equipment, space, personnel, etc.). The department chairs consider input from faculty when
preparing the request to the Dean for department support.

The CBA has primary responsibility for the management and oversight of the financial processes within the college.
The CBA, who reports to the Dean and to the University Vice President for Administration and Finance, is responsible for
communicating policy and procedural changes to the departments. In addition, the CBA ensures that each department
has appropriate policies in place to comply with necessary processing standards. The CBA is ultimately responsible for
the budgetary control procedures used by each department.
The Department funds are managed by the Department Chair with the assistance of the business staff. The CBA performs budget oversight of those funds, as well as the college fund.

Systems exist to monitor expenditures at both programmatic and department levels. The University uses the PeopleSoft Accounting System that accounts for all processed transactions. The system produces monthly reports of expenditures that summarize details of all transactions. The Central Business Office performs monthly reconciliation and certification of college expenses. The CBA provides the Dean with monthly financial reports detailing expenditures and status of the college.

The college established a Central Business Office (CBO) in FY 2009-2010, streamlining the financial, budgetary, and HR-related operations of the college and the departments.

Indirect cost return is used for research equipment maintenance.

Comments:

Strengths

In FY 2005-2009, two financial resource areas, gifts and Busulfex royalty income, were noteworthy. The gifts from philanthropic giving and new scholarship endowment principles increased significantly (30-A), 1.29 times from $236,820 in 2005 to $541,908 in 2009. In addition, 17 new scholarship endowments were established in 2005-2009, in the amount of $823,952. The total amount of scholarship endowments increased from $879,641 in 2005 to $1.45M in 2010. It remains optimistic in the establishment of new endowments, even during the period of economic downturn.

The second area resulted from the change in the University Intellectual Property Policy in FY 2005, to return 20% of Royalty incomes generated from intellectual properties to the respective academic units. As a result, the College receives a new, unrestricted resource from the product of Busulfex® invented from college research. The income more than doubled from $111,437 in FY 2005 to $309,420 in FY 2010. The income will continue steadily or further increase, until FY 2016. These increases impact positively on professional and graduate programs.

A further strength is the wide diversity of funding sources utilized by our faculty. Although federal funding is the primary goal, awards are obtained from many other sources including private companies and foundations. These awards are extremely useful for doing preliminary studies that can be leveraged into federally funded projects.

Weaknesses

Although the college's income strategy is diverse and the college receives state appropriated monies, the funding level is insufficient to meeting the operating budget of the college. Therefore, more emphasis on the other components of the college's income strategy is critical. In particular, a further enhancement is needed in the gift and
donation categories. Without substantial increases in gifts and donations to the college, the PharmD program will not accommodate the needs of its students, profession, and the community-at-large.

The current budget will not support initiating new programs, improving facilities, emergencies, equipment, computer, and software upgrades.

**Quality Improvements:**

*Three-year projection*

As a result of the reduction in Texas Higher Education Coordinating Board tuition formula (from 9.0 to 3.79 to be in effect in FY 2010), as well as the state and University of Houston mandated State budget cuts of 5% in FY 2010, 10% in FY 2011 (an additional 2.5% is anticipated before the end of the fiscal period), and potentially an additional 10-25% in FY 2012 and FY 2013, the college will face challenges to make any further progress toward its goals.

Upon the notification from the University of mandatory budget cuts in FY 2009-2010 and several years to follow, the Dean appointed the aforementioned College Budget Advisory Committee (CBAC), consisting of a chair, two faculty members from each department and a staff representative, to review the current budgets and identify and prioritize potential budgetary items that can be reduced with sound justifications/rationales and minimal impacts on educational programs, based on the expenditures record. The CBAC formulated proposals for various levels of reductions, and submitted to the Dean recommendations, which were reviewed by the Executive Council for final decisions. The entire faculty will be informed with the decision. The process involved inputs from all stakeholders of the college, and strives to be transparent.

The cost of APPE experiential clinical sites have been paid with funding from tuition increases and unfilled faculty lines for the past five years. There are two areas of significant concern soon to appear: (a) the current available sites are collectively proposing to increase the fees for accepting students at those sites, and (b) out of State monetary incentives are becoming more lucrative for TMC sites which may affect future site availability. Long term solutions to these issues must be found.

**Evaluation of Progress**

Progress will be evaluated annually by faculty review of the budget and discussed with the Dean at a faculty budget meeting and strategic plan updates will track progress as well.
<table>
<thead>
<tr>
<th>Meets the Standard</th>
<th>Partially Meets the Standard</th>
<th>Does Not Meet the Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Executive Committee or equivalent is conversant in all areas of the budget.</td>
<td>• The college or school is overly dependent on insecure or temporary sources of revenue.</td>
<td>• The budgeting process lacks internal transparency consequently, faculty don't understand it.</td>
</tr>
<tr>
<td>• Department chairs are responsible for their own budgets.</td>
<td>• The college or school has a plan and is in the process of addressing all issues related to not meeting the requirements of this standard.</td>
<td>• An “excessive” number of faculty lines are supported by non-sustaining funds or foundation money.</td>
</tr>
<tr>
<td>• The budgeting process has internal transparency and faculty understand it.</td>
<td>• Financial resources are available in a manner that supports the growth and development of the program and addresses the accreditation standards.</td>
<td>• The budget is created outside the college or school without input from the dean.</td>
</tr>
<tr>
<td>• Financial resources are available in a manner that supports the growth and development of the program and addresses the accreditation standards.</td>
<td>• Financial resources are sufficient to support and advance the mission and goals of the program.</td>
<td>• The college or school has insufficient financial resources to meet the mission and goals of the program.</td>
</tr>
<tr>
<td>• Financial resources are sufficient to support and advance the mission and goals of the program.</td>
<td></td>
<td>• Significant numbers of faculty resign because of low pay.</td>
</tr>
<tr>
<td>☐ Meets the Standard</td>
<td>☑ Partially Meets the Standard</td>
<td>☐ Does Not Meet the Standard</td>
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<td>• Student enrollment exceeds the capacity of physical, financial or educational resources (e.g., in order to bring additional funds into the college or school).</td>
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