College of Pharmacy

Doctor of Pharmacy

1. The mission of the College of Pharmacy is to educate students to meet the pharmaceutical needs of society, to advance pharmaceutical knowledge through research and to serve the profession and the community. The competencies and learning outcomes for the Doctor of Pharmacy program, which was the College’s primary program during the 2006-2007 academic years, were:

After successfully completing the program, the students will be expected to:

1. Assess patients, utilizing patient-specific data (e.g., physical exam, laboratory tests, history, procedures), in order to provide pharmaceutical care.
2. Evaluate and prioritize patient problems and triage patients to other health professionals, as appropriate.
3. Design, implement, monitor, evaluate, and adjust a patient-specific, evidence-based pharmaceutical care plan or recommend modifications of an ongoing pharmaceutical care plan.
4. Identify, assess, and solve medication-related problems and/or issues.
5. Report and manage medication errors and adverse drug reactions.
6. Recommend and monitor non-pharmacological, nutritional, alternative and non-prescription therapies for patient-centered and population-based pharmaceutical care in an evidence-based manner.
7. Retrieve, interpret, evaluate, and apply scientific, lay, and professional information to specific patient care, population-based health care, and health policies.
8. Effectively communicate and collaborate with prescribers, allied health professionals, caregivers, policy makers, members of the community, administrative personnel, supportive personnel, and other involved providers of health care.
9. Safely and accurately evaluate, compound, package, and dispense prescriptions in appropriate dosage forms.
10. Communicate with patients in order to obtain appropriate patient-specific information on their health condition and medication history in order to ascertain the patients’ compliance, monitor medication use, determine the effectiveness of their current medical regimens, and, when applicable, devise a new medical regimen or suggest modifications to the current regimen.
11. Communicate with patients in order to counsel them regarding the purposes, proper uses, therapeutic and adverse effects, and self-monitoring of their medications and to promote wellness and health.
12. Manage medication use systems, through the ability to apply patient- and population-specific data, quality assurance strategies, and research processes, in order to minimize drug misadventuring, optimize patient...
outcomes, contribute to the development of drug use and health policy, and collaborate on the design of pharmacy benefits.

13. Manage human, physical, medical, informational, and technological resources, through the ability to assure efficient, cost-effective utilization of these resources in the provision of patient care.

14. Perform the proper administration of medications via nasal, inhalation, otic, optic, and injectable (subcutaneous and intramuscular) routes.

15. Develop skills to carry out duties in accordance with legal, ethical, social, economic, and professional guidelines and to interact in an appropriate professional manner with healthcare providers and patients.

16. Develop the skills necessary to maintain professional competence by identifying and analyzing emerging issues, products, and services and to become self-directed lifelong learners.

2. During the 2006-2007 academic year, the following information and data on student learning outcomes and student services were collected:

- NAPBPLEx licensure examination scores and passing rates
- MPJE law examination scores and passing rates
- Survey of Graduates
- End of Year Surveys of years P1, P2, P3
- Experiential preceptor evaluations
- P2 pharmacy practice skill development (practical) examination scores
- P3 Capstone written assignment scores
- Alumni Survey

3. Based on our analysis of information collected during the 2006-2007 academic year, the following is concluded about student learning and student services in the Doctor of Pharmacy program:

- Based on the NABPLEx Pharmacy licensure examination, 98.9% of our 2007 graduates passed as first time takers compared with 98.9% of first time takers statewide and 97.2% nationally. Average examination scores for our graduates were 117.4 compared with 116.6 for all graduates in the Ohio, and 116.0 for all graduates nationally. Discipline specific examination scores are not determined and therefore are not available. The NABP does not currently have any plans to calculate such scores when reporting examination results.

- Given scores on the MPJE Pharmacy Law examination, 97.4% of our 2007 graduates passed as first time takers, compared with 98.2% passing statewide. Average scores were 84.2 for UTCP graduates and 85.9 statewide.

- The graduate survey (2007 class) demonstrated that more than 80% of the respondents agreed or strongly agreed that they had achieved competency for 64 of 79 of the curriculum’s subcompetencies, with a majority of graduates agreeing or strongly agreeing that they had achieved each of the
curriculum’s 79 subcompetencies. Subcompetencies in which students generally viewed themselves as less well achieved were those which related to resource management skills (human, physical, medical, informational, and technological), communicating with policy makers, and nutritional and alternative medicine therapy recommendations. Overall, the graduates shared that they were extremely pleased with the extent of both the depth and breadth of competency that they achieved in the Doctor of Pharmacy program. They noted the contributions made by many devoted and knowledgeable faculty.

- End of Year Surveys of students completing P1-P3 years of the Doctor of Pharmacy program were conducted for the second time this year. The survey results documented the growth in the students’ competencies over the 3-year period. The P1, P2, and P3 classes denoted that they had met (with >80% agreement) 0, 37, and 77 of the 79 subcompetencies, respectively. Similar to the results for the Class of 2007, the management subcompetencies comprise the commonly noted area perceived as not being achieved as highly as others.

- Experiential preceptor evaluations of our students are conducted at the end of each of the eight required 4-week rotations. These evaluations document that our students are well prepared to begin and complete the tasks required of the rotations. As commonly observed in the past, experiential preceptors uniformly share that our students are very well prepared.

- Formative assessment of pharmacy practice skills is conducted via practical examination at the end of the P2 year. Of the 105 students who took the examination, 98.1% passed on the first attempt with the remaining 2 students passing on a re-attempt. The average on the examination was 82.7%.

- P3 students are required to complete the Capstone literature evaluation written assignment. The average score on this assignment was 89.0%. Students who originally score less than 80% were required to rewrite their assignment. Of the 99 students who completed the assignment, 6 were required to complete rewrites.

- The End of Year and Graduate Surveys included 30 points regarding college policies, administration and student resources. The questions/statements where the least positive response was expressed related to financial aid services, debt management advising, and access to study areas.

- The AACP Alumni Survey was administered to the doctor of pharmacy class of 2005. Sixteen alumni responded (47% response rate), 8 of which were practicing in chain community pharmacy. Overall, the responding alumni were very satisfied with the preparedness provided by their academic program. The alumni agreed most positively that their program had effectively taught them to monitor and counsel patients about the purposes, uses, and effects of their medications and that their pharmacy education prepared them to be self-directed, lifelong learners. Weakest levels of agreement were noted for statements regarding abilities to effectively manage a pharmacy or pharmacy practice.
4. Based on our conclusions about student learning and services in the Doctor of Pharmacy Program, we have taken and will be the taking the following action steps during the 2007-2008 academic year.

a. Curriculum
   i. The curriculum committee and faculty are closely reviewing the curriculum with the intent to incorporate significantly more hours of Early Experiential courses, which will accomplish a continuum of experiences over the P1-P3 years in a manner that is well integrated with the required didactic curriculum. The new courses will not only expose students to the entire breadth of pharmacy practice, but will also introduce students to pharmacy care earlier in their careers. A pilot version of the P1 course is being offered in the 2007-2008 academic year. The new curriculum will also expose the students to pharmacy management applications across all areas of practice, which should facilitate student learning in the Management course series. A well-delivered Early Experiential course series should significantly enhance learning in the didactic portion of the curriculum.
   ii. Additional curricular modifications that are planned will include enhanced integration of pharmacy practice and basic science courses, incorporation of practical applications in basic science courses, and basic science principles in pharmacy practice courses. Pilot projects in integration between basic sciences and pharmacy practices courses are being initiated in the 2007-2008 academic years. The Pharmacotherapy course series will also be initiated earlier in the curriculum in order to provide the students with greater opportunities to see clinical applications earlier in their careers.
   iii. Additional curricular modifications will also provide the opportunity for more elective courses in the Doctor of Pharmacy program, so that the completion of an Honors Thesis is possible.
   iv. A revised Doctor of Pharmacy curriculum with the above modifications was approved by the faculty, in principal, in February 2007. Syllabi for new courses are under development. New Early Experiential courses will be initiated Fall 2008.

b. Instruction
   i. The College of Pharmacy is participating in the University’s adoption of Epsilen ePortfolio program. Epsilen is being used in the P1-P4 classes on both a required and elective basis.
   ii. Cumulative Final examinations are being incorporated in all required courses in the Doctor of Pharmacy program as an initial step to the development of end of year assessment examinations.
   iii. Pilot projects to integrate pharmaceutical science and clinical pharmacy instruction are being incorporated into a number of courses throughout
the curriculum and will serve as models for planned larger scale curricular change.

c. **Student Services**
i. The college’s office of student services continues to address financial aid issues noted by pharmacy students. A focus group on financial aid was held in Spring 2007. The outcome of this session is an annual financial aid session for P2 students as they anticipate transition into the P3 year. The sessions include a presentation by a financial aid officer and a question answer session, and informative materials on tuition and fees and financial aid. These sessions are scheduled at a time convenient to the students and are well attended. In preprofessional group advising sessions, fee structure for the professional division is discussed in order to prepare students for the increased costs. Students are also referred to Rocket Solution Central where they can have their financial aid questions addressed.

ii. Available space for student study and socialization is limited in Wolfe Hall. Since additional space has not been identified, an additional table and chairs have been added to the student Resource Room, so that seating capacity is at a maximum for the room. An additional printer that is able to print on three-holed paper has also been added. A significant amount of the usage of this room relates to its use during the first few of days of class, and the necessity for students to print significant course materials in a short amount of time. The college has requested that Distance Learning have College WebCT sites open a few days prior to the start of the semester so that students may have more time to prepare for the first day of class. The extended hours of the newly renovated Information Commons in the Carlson Library have given our students more options.

d. **Strategic Plan**
i. The Strategic Plan has been loaded into Prism and reflects the costs associated with implementation. Further, this topic is addressed in the Strategic Budget Reallocation planning of the college. Funding will be requested of the university to carry this project forward. The college will further suggest that programs identify common core functions, and engage such resources in a non-duplicative method.

e. **Resource Allocation**
i. Recently, the college reviewed its financial status in light of the national standards for PharmD education, and the growing BS in Pharmaceutical Sciences program. This review revealed resource requirements in significant areas and led to revision of fees charged to upper division students. As a result, the college is now partially funded to address the following areas: experiential education; recruitment; student advising;
diagnostic licensure examination; enhanced education in the compounding of prescriptions; and scholarships.

ii. The Office of the Dean has also been granted a new position to be assigned to the assessment effort. The college will decide on the deployment of this resource in the context of the overall leadership needs of the college in academics.