Mission

The College of Pharmacy inspires and educates current and future pharmacists and scientists, engages in cutting-edge research and leads practice development to improve the health of the people of Minnesota and the world.

Vision

The College of Pharmacy will be a world leader in outstanding pharmacy education and research and in improving health by:

- Providing a dynamic educational experience to a high-achieving, high-potential, diverse student body, thus empowering them to become leaders in patient-centered, interprofessional care.
- Leading in innovative research in pharmaceutical sciences and practice while embracing the value of interdisciplinary work.
- Establishing relationships with patients, decision makers and practitioners to meet changing needs, model patient-centered care and shape the evolving health care system.
- Preparing graduate students, residents and post-doctoral fellows to become the next generation of scientists, advanced practitioners and educators.
- Attracting and retaining outstanding and diverse faculty and staff.

Curriculum, Experiential Education

Goal: To review and revise the professional curriculum to optimize the education and preparedness of our college's students for a dynamic profession.

Background: The College of Pharmacy implemented the last comprehensive curricular revision 10 years ago. Internal and external forces are changing the face of pharmacy, including the role of pharmacists in our health care system. We are a leading college of pharmacy nationally and internationally. Our curriculum should reflect changing practice and be designed to prepare contemporary pharmacy practitioners.

Prior to the January strategic planning meetings, the strategic planning/curriculum subgroup identified the following issues. They continue to be the most pressing issues in this area for all four years of the curriculum, including experiential education.

- *Maximize the educational opportunities of the Duluth expansion.* In terms of program excellence and curriculum delivery, implementation of the Duluth program has brought both opportunities and challenges to the college. One opportunity has been the increased class enrollment and the forthcoming placement of graduates in Greater Minnesota. A challenge has been delivery of the curriculum in a manner that provides equal resources and opportunities for students on both campuses. Curriculum revision will allow us to create a curriculum **specifically designed** for two campus locations that will maximize faculty expertise, optimize teaching and assessment methodologies and enhance student learning. Through curriculum revision we can ensure achievement of like outcomes for students on both campuses. The whole will be greater than the sum of the parts.
- *Connecting outcomes to curriculum content.* Consistent with ACPE accreditation standards and CAPE guidelines, the curriculum should be based on achievable and quantifiable outcomes. Our current outcomes document provides a broad description of outcomes to be mastered. However, it lacks precise quantifiable measures for determining whether outcomes are met or how to meet them. Furthermore, it provides for no conspicuous plan for connectivity between courses in the drive to achieve these outcomes. Curriculum planning should begin with the outcomes to be achieved, and the coursework should be systematically and purposefully designed to progressively develop students to meet the outcomes.
- *Need Flexibility in Building a Practitioner*. The college is committed to educating students to become generalist pharmaceutical care practitioners. At the same time, students should be allowed to further focus their education and begin developing expertise in a practice area (e.g., infectious disease, geriatrics, pediatrics, oncology cardiovascular, critical care, ambulatory care, nephrology, rural practice). To do this, we must define the minimum core curriculum and offer ample elective courses and advanced pharmacy practice experiences to allow students to develop a focused practice and/or research area. Curricular revision is necessary in order to ensure that students have this opportunity.

- *Need to move practice experience earlier in the curriculum*. Students need to apply the material presented in the curriculum. This is best accomplished through our early and advanced pharmacy practice experiences (EPPE/APPE). Our present design of study places the majority of EPPEs in the first two years and all APPEs (including externships) in the last year of the program. APPEs do not necessarily build on EPPE learning. Without curricular revision, change in the structure of our experiential program to resolve these issues is not feasible.
- *Imbalance in the present CoP semester course load*. There are inconsistencies in the course load with respect to the credits allocated to a semester and credits assigned to a course and its related work hours. The current credit load is weighted toward the beginning of the curriculum. This results in a lack of flexibility (moving classes, remediation, electives, personalized learning paths) and decreased opportunities for patient care experiences. There is an imbalance between credit standards and course workload. Balancing workload and credits assigned to courses would allow students to determine if there is room for additional elective courses and other commitments.
- *Prerequisites*. The demands on the professional curriculum continue to grow as health care information and opportunities expand exponentially. Predictably, the curriculum has become overloaded in well-intentioned and appropriate efforts to keep up with the dynamic profession's educational needs. Shifting some current coursework to prerequisites will open up space in the curriculum for topics and coursework that may currently lack sufficient emphasis to meet educational outcomes. This will also allow for flexibility in the curriculum to meet the current and future educational needs of our students and profession.
- *Miller's Taxonomy – balancing levels of learning and assessment and the curriculum*. Miller's taxonomy describes four progressive levels of educational development: knows, knows how, shows how and does. *Knows* and *knows how* are critical for building an educational foundation. *Shows how* and *does* represent integration of knowledge and skills, allowing for comprehensive, objective assessment of students' professional maturation. Due to a variety of reasons (historical, resources, etc.), the curriculum is largely delivered and assessed using *knows* and *knows how* strategies, creating a disconnect between assessment and required competency. Curriculum revision would allow the college to emphasize delivery methods and assessment strategies to maximize *shows how* and *does* educational and assessment strategies while efficiently using educational resources.

Sub goal 1: To create a curriculum based on faculty-defined outcomes with educational opportunities systematically and purposefully designed to progressively develop students to meet these outcomes.
Strategies:

- Assign a task force to lead the charge of learning outcome measure development and comprehensive curriculum revision. (Rationale: Although this may be seen as an issue for EPC and/or Assessment Committee, it is

unlikely that the scope of this task can be completed within the usual functioning of EPC and Assessment Committee. Needless to say, a structured connection would need to be maintained between the task force, EPC and the Assessment Committee.)

- Develop outcomes measures and professional development "benchmarks" that correspond to the college's outcomes document, revising the outcomes document as necessary.
- Develop and implement plan for continual outcome measure review/revision on scheduled basis.
- Develop and implement a plan for assessing students' competency in outcome "benchmarks" and plan for student remediation if "benchmarks" are not met.
- Initiate the process of curricular revision to efficiently and effectively meet the developed outcomes and outcome measures.
- Explore recent curriculum changes in the profession (advantages, disadvantages, resources) for select colleges/schools (to be determined).
- Identify key components needed in revised curriculum.
- Outline plan for curriculum revision.
- Within one year, full faculty to agree on plan and outline for curriculum revision.
- Implement curricular revision as defined in plan from Year 1.
- Develop and implement plan for continual curricular mapping and revision.
- Develop and implement faculty teaching and curriculum outcome measures through same task force (or EPC or Assessment Committee).
- (Define) benchmarks for curriculum performance.
- Schedule for review of curriculum outcomes.
- Plan for faculty teaching and curriculum development, assessment and improvement.

Sub goal 2: Build into the curriculum flexibility in learning opportunities that reflects changing practice (including interprofessional practice) and is designed to prepare contemporary pharmaceutical care practitioners.

Strategies:

- Systematically (e.g., student surveys, current national trends) determine topic areas for elective offering and establish an assessment process for elective offerings every five years.
- Develop and continue to build relationships with other health professional programs, including revision of schedules (as necessary) to accommodate interprofessional collaboration.
- Develop multiple opportunities for students from several health care professions to work as a team in a real or simulated patient care environment.
- Define the minimum core curriculum and offer ample electives and advanced pharmacy practice experiences to allow students to develop focused practice/research.
- Determine which coursework may be switched to prerequisites to open space in curriculum for areas which lack specific emphasis.

- Design a schedule that includes an opportunity for J-term and May term sessions for increased flexibility in student schedules.
- Develop educational opportunities to build the necessary skills in our graduates to accelerate change in practice, such as innovation and leadership.

Sub goal 3: To create a curriculum specifically designed for two campus locations that will maximize faculty expertise, optimize teaching and assessment methodologies and enhance student learning.

Strategies:

- Compile and create a searchable Web-based profile for each faculty member listing research interests, clinical practice expertise and current areas/topics/courses that faculty are teaching or would like to teach to identify unique strengths of each faculty.
- Develop and implement a vibrant faculty research and teaching mentoring program that crosses campuses and incorporates educational coordinators from regional sites. (Note: St. Louis College of Pharmacy is reputed to have an excellent faculty mentoring program. See attachments.)
- Incorporate education on the CoP curriculum, specific courses and what is taught in specific courses in mentoring program.
- Develop a Web-based searchable curriculum map and allocate resources for continuous updating.
- Develop and implement a peer-evaluation system for teaching.
- Develop a series of standard course evaluation questions that revolve around intercampus teaching issues (ITV, WebCT, team approach, student interactions).
- Create parallel course schedules (required and elective) on each campus where possible to allow open spots for scheduling review sessions, office hours, etc.
- Obtain adequate support (faculty, TA, technology) for making the majority of elective courses available to students on either campus or at each regional site.
- Dedicate appropriate resources (including space) and provide equivalent education resources between both campuses so that students on each campus have equal access to instructors, tutors, competent TAs, review or recitation sessions and counselors who are knowledgeable in the day-to-day activities of a pharmacy student. Note: Some work with use of WebCam is already going on.
- Develop “universal syllabi” for Pharm.D. program courses (e.g., physiology) that are taught by different instructors on each campus, as the same educational objectives should be achieved even if students have different instructors.
- Evaluate and critique research and graduate/post-graduate educational models from other colleges of pharmacy (e.g., University of Texas, University of Florida) that have successful programs on more than one campus.
- Build on experiences gained by other schools of pharmacy to cultivate more effective communication between campuses and regional sites.

- Extend “adjunct” TC departmental affiliations to Duluth faculty based on their research and teaching interests to facilitate research, teaching and service collaborations.
- Develop and make readily available standard operating procedures for all ITV classrooms (both CoP and non-CoP).
- Establish a dedicated fund (e.g., this could include transportation, technology cost or food) for intercampus/site activities.
- Create resources to enable students, faculty and staff from all college locations to have equal opportunity to attend similar activities, e.g., Melendy lecture, Pharmacy Day, etc.
- Plan specific activities that encourage intermingling between faculty, students and staff from both campuses and regional sites.
- Proactively plan and have intercampus course team meetings, preferably face-to-face meetings should be encouraged. Team meetings should occur before semester begins and throughout semester via ITV, Webcam or telephone.
- Facilitate teaching and research collaborations between faculty by designating an off-campus faculty office on TC campus.

Sub goal 4: Provide for our students a continuum of high-quality early and advanced pharmacy practice experiences, which allows students to develop a professional context for learning and to apply their learning in multiple hands-on environments with real patients under the guidance of experienced practitioners.
Strategies:

- Utilize practice sites and preceptors throughout Minnesota to provide students with options in all core experiences in rural and urban areas.
- Deliver high-quality experiences at all sites effectively using technology, processes and personnel to help accomplish this. This will include developing:
    - An effective preceptor development program
    - Sound student, preceptor and site assessment processes to support the maintenance of this high quality.
- Drive practice innovation by enhancing communication and consultation between practitioners and the college to ensure students learn in evolving practices.
- Sequence the components of experiential education to facilitate application-oriented learning of didactic course material and to more logically develop experiential outcomes.
- Develop interprofessional experiential education experiences in all geographic regions of the state.

Sub goal 5: Provide an environment that supports and promotes the education and practice missions.

Research

Goal: The College of Pharmacy will be recognized as a leader in pharmacy research.

Background: The College of Pharmacy has 80 faculty who conduct a variety of research. Data from 2004-2005 on the total funding amount for the college can be found at http://www.oar.umn.edu/trends/trends_home.cfm after October 2005. Funding sources include the NIH and industry. Of the college's faculty:

The COP has 80 faculty, and in 2003-2004, the CoP received $5.57 million in external funding from the following sources: NIH, Industry, etc. Of the college's faculty:

- 91.3 percent faculty published one or more papers in a peer reviewed journal in 2003-2005.
- 44 percent of faculty have external funding for research.
- 48 percent of faculty have salary offset from research, with a mean of 11.2 percent.
- Nearly all faculty support a graduate student, fellow or post-doc on research funds
- In 2003-2004, the college submitted 82 proposals for funding totaling $13.8 million. Comparisons to previous years can be found at http://www.oar.umn.edu/trends/trends_home.cfm
- In 2003-2004, the college received 45 grants totaling $5.57 million. Comparison to previous years can be found at http://www.oar.umn.edu/trends/trends_home.cfm

Other metrics for policy impact, for program evaluation research need to be developed.

Sub goal 1: Recruit, nurture, support and retain outstanding faculty researchers.

Strategies

- Organize a system for mentoring junior faculty across both TC and Duluth campuses.
- Strengthen incentive programs to increase grant-seeking.
- Improve grant submission procedures on both campuses to enable faculty to concentrate on proposal content, not processing.
- Improve grant management procedures to ensure efficient and effective financial and human resources management and enable faculty to concentrate on conduct of research.
- Commit funds and staff time to faculty principal investigators to manage the administrative burden of creating center grants, training grants or other major funding applications where CoP faculty can lead University wide, AHC-wide or multi-institutional efforts.
- Recognize faculty research accomplishments.

  Sub Strategies

  - Disseminate CoP research findings according to a systematic, organized plan.

    - Develop metrics for the impact of policy research.
    - Develop metrics for the impact of program development/evaluation research.
- Investigate and evaluate various models for determining the optimal size of the faculty and the correct mix of tenure-track and research professional hires.

Sub goal 2: Provide an environment that supports and promotes the research mission.

Strategies

- Establish a CoP external advisory board to identify research opportunities and facilitate research efforts on behalf of college faculty.
- Compile and create a searchable Web-based profile for each faculty member listing research interests and clinical practice expertise.
- Develop policies that facilitate collaboration between TC and Duluth campuses, across CoP departments and among AHC colleges.
- Develop policies and programs that enable more graduate students and post-graduate trainees to be supported on research grants/contracts/training grants.
- Develop graduate education on the Duluth campus and foster a Ph.D.-level culture of academic excellence.
- Extend "adjunct" TC departmental affiliations to Duluth faculty based on their research and teaching interests to facilitate research, teaching and service collaborations.
- Have all faculty publish in peer-reviewed journals regularly.
- Increase the number of professional students involved in research opportunities, particularly in their first years at the CoP.
- Improve the career development pathways and job satisfaction of research/technical staff.
- Facilitate research collaborations between faculty by designating an off-campus faculty office on TC campus.

Sub goal 3: Obtain the resources necessary for the research mission to flourish.

Strategies

- Increase the level of external funding by 100 percent by 2010.
- Increase the success rate of grant proposal submissions.
- Increase the percent of faculty who have external funding.
- Increase the number of faculty who are principal investigators on grants/contracts.
- Raise the average level of salary offset.
- Configure the support staff to reflect the needs of the research mission.
- Have a systematic, organized method for acquiring, maintaining and replacing research equipment and facilities.

- Compile and create a searchable Web-based research resource and equipment list guide for both campuses and regional sites that identify unique strengths of each site.

Sub goal 4: Devote resources to foster excellence in research programs in specific areas in which the University seeks to establish prominence, including, but not limited to, cancer experimental therapeutics, pharmaceutical care, genomic/proteomic applications to drug therapy, clinical/translational research and the Minnesota Chemical Biology Initiative.

Sub goal 5: Develop the research capacity of the Duluth campus of the college.
Strategies

- Acquire and furnish appropriate space for lab and office-based researchers including accessible, shared facilities.
- Establish a graduate program in the CoP Duluth through tracks in existing CoP programs or another mechanism.
- Support career development for Duluth faculty.
- Develop mentoring programs across campuses.
- Survey faculty on both campuses and regional sites on specific departmental, AHC or other research or education symposia/seminars that they routinely attend and/or would be most interested in attending.
- Provide real-time access to seminar, journal clubs, lab meetings using ITV and other technology.
- Engage the majority of Duluth faculty and students in funded research efforts.
- Determine the right size for the Duluth faculty and actively recruit research faculty.

Sub goal 6: Strive to improve the college's research external ranking according to AACP criteria.

Duluth Expansion

Goal: Meld the two campuses and regional sites as integral/essential components to achieve the College of Pharmacy's mission (capitalize on strengths).

*Background***:** The primary goal of the Duluth expansion was to better meet the need of Minnesotans for pharmacists, especially in the rural areas. The goal during planning stages in 2000 was to expand the present College of Pharmacy class enrollment by an additional 150 students in three classes/years. As planned, the program was initiated in Fall 2003 with 52 additional students per class in Fall 2003 and 2004. A higher percentage of Duluth students had a rural background (37 percent) compared to Twin Cities students (20 percent). During the planning stage, there were several guiding assumptions, including:

- Faculty hired will be of the same caliber as our current faculty and will be expected to participate in all aspects of the college's mission. Faculty will be hired one year prior to their teaching responsibilities to get a scholarly activity/research program established and learn about our educational program.
- The two locations will provide the same excellent education to all students.
- The current curriculum is used in the model. The assumption is that it will not change substantially in the near future (note: written in 2000). There is increasing emphasis on small group/active learning.
- A Web education director will be employed to help make materials available using Web technology, regardless of the location.

Twenty high-caliber faculty have been hired, with three remaining to be hired. Several faculty were hired close to the time that they were needed to be involved in teaching, limiting their time to be able to learn fully about our educational program or optimally initiate their research programs. A few Duluth faculty have funded research, a few have been recognized as graduate faculty within existing graduate programs and all desire to initiate and grow educational/research initiatives. However, there are barriers, including:

- Majority of Duluth faculty are at the assistant professor level.
- Lack of understanding about our curriculum (no curriculum map).
- Lack of knowledge of CoP faculty research strengths and interests as well as existing graduate programs.
- Lack of office space in TC for off-campus faculty.
- Poor access to departmental, graduate and other research/clinically based or educational seminars from TC.
- Unwillingness of some TC-based departments to grant graduate faculty appointments to Duluth faculty.
- Lack of mention of Duluth in college graduate student recruiting efforts.

By the end of Spring 2005, two years of our curriculum will have been taught. Most courses have been identical and have been taught using ITV. A few course directors have reported grade discrepancies between campuses while others have reported no significant differences. Some instructors have incorporated active learning strategies into their

courses to engage students across ITV. Several faculty have increased their use of Web-based instruction or Web-based instructional tools to reduce paperload between campuses. All but three elective courses originating from the TC are available to Duluth students. Unique delivery issues, lack of Duluth development (at this time) or requirement for interdisciplinary students has limited those three electives to TC campus only. The one elective offered from Duluth is offered to TC students as well. There are now two phones set up with long-distance dialing capability available to students for purposes of contacting Twin Cities instructors with questions. Web-cam technology is being used by many faculty to improve communication links between campuses, faculty and students. The CoP is currently evaluating multi-site capabilities for Web-cams to link several faculty/sites at once. Current barriers to providing equivalent education uniformly across courses and to all students include:

- Some courses are taught by different instructors (not through ITV) and learning objectives are not equivalent.
- More difficult for Duluth students to have access to TC faculty for day-to-day questions.
- Lack of ITV classrooms (small and large) on TC campus.
- Regional sites are not connected through ITV.

The sub goals and strategies below attempt to diminish the barriers identified.

Sub goal 1: Identify and capitalize on the potential synergy between campuses and regional sites by identifying strategies to achieve curriculum, research and graduate/post-doctoral education goals
Strategies:

- See strategies under relevant sections of goals pertaining to curriculum, research and post-graduate education.

Sub goal 2: Develop a seamless approach to college business (professional/graduate/post-doctoral education, research and service) between campuses and regional sites.
Strategies:

- See strategies under relevant sections of goals pertaining to curriculum, research and post-graduate education.

Sub goal 3: Foster positive personal and group relationships between students, student groups, faculty, faculty departments and staff from all college locations.
Strategies:

- See strategies under relevant sections of goals pertaining to curriculum, research and post-graduate education.

Advanced Scientific and Professional Education (Graduate/Post-doctoral Education)

Goal: The College of Pharmacy will prepare expertly educated scientists and practitioners at an advanced level to meet the future needs of the profession, pharmaceutical industry and academia. This will be accomplished through stable and successful graduate programs and graduate and post-doctoral educational opportunities.

Background: The college faces increasing financial difficulty in supporting graduate and post-doctoral education as well as difficulty in obtaining visas for international students to study with our world-renown faculty. (Note: "Graduate" in this section refers to graduate students. "Post doctoral" refers to post-Pharm.D. and post-Ph.D.) The decreasing number of U.S.-trained applicants to graduate and post-graduate education programs creates opportunities for recruiting as well as demonstrates the challenge of attracting students to academia and research. Given the current environment, maintaining the size of the graduate program in each individual department may be difficult. The college faces a perceived lack of knowledge among students about the opportunities for and benefits of graduate and post-doctoral education. The desire exists for developing graduate and post-doctoral programs that involve the Duluth campus and provide increased opportunity for collaboration between campuses.

Sub goal 1: Attain long-term, stable funding to support graduate and post-doctoral education.
Strategies:

- Increase the number of externally funded fellowships.
- Increase endowments for graduate and post-Pharm.D. education.
- Position the college to successfully compete for government-sponsored training grants.
- Assure that we effectively take advantage of existing graduate/post graduate funding opportunities (e.g. AFPE Fellowships, USP Fellowships, Graduate School Fellowships, etc.).

Sub goal 2: Develop a creative organizational structure that maximizes the efficiency and effectiveness of graduate and post-doctoral training programs.
Strategies:

- Evaluate and critique research and graduate/post-graduate educational models from other colleges of pharmacies that have successful programs on more than one campus (e.g. University of Texas, University of Florida).
- Explore synergies among the DGS and post-Pharm.D. program directors and their efforts.
- Explore models and assess value of an organized program for post-Ph.D. fellows.

Sub goal 3: Develop programming that spans the professional curriculum to expose and recruit students to post-Pharm.D. education opportunities to reach a target of 40 percent of college graduates pursuing advanced education.
Strategies:

- Incorporate discussions at early-, mid- and late-semester throughout each year to address how presented material relates to the practice and science of pharmacy.
- Develop early exposure experiences regarding clinical, administrative and practice-based research in addition to basic science research.
- Incorporate career planning and awareness of research into the professional curriculum.

Sub goal 4: Increase applications from undergraduate and domestically educated professional students for CoP graduate and post-doctoral education programs.
Strategies:

- Explore federal government programs to support interactions with minority and non-research based schools.
- Optimize recruitment strategies (such as a common recruitment day) for graduate education.
- Develop optimal communications for promoting awareness of programs.
- Garner funds to aggressively recruit promising students.
- Develop a network of "feeder school" representatives who can serve as a conduit to potential applicants.

Sub goal 5: Create opportunities for graduate and post-doctoral education, incorporating the Duluth program.
Strategies:

- Identify types of programs desired and their feasibility.
- Survey CoP graduate program or fellowship program coursework and determine which courses are also available on Duluth campus.
- Identify existing programs of which Duluth faculty can take advantage.
- Explore mechanisms for utilizing TAs in Duluth.
- Compile and create a searchable Web-based resource guide for graduate students, resident and fellows on both campuses and at regional sites that focuses on strengths of each site.
- Explore formal relationships, such as grad faculty appointments, adjunct appointments, etc., of Duluth faculty with TC Departments to encourage collaborative research and facilitate training of graduate students and post-Pharm.D. trainees.
- Determine the best fit for each Duluth faculty within our current graduate program (disciplines) and intentionally place Duluth faculty on current and future graduate student committees.
- Integrate UMD and regional site faculty into post-graduate graduate and post-doctoral education where appropriate.

- Dedicate appropriate resources (including space) so that Duluth or regionally based graduate students or fellows can participate in courses that are only available on the TC campus.
- Incorporate Duluth and regional site faculty member information (biographies) where appropriate in graduate, fellowship or residency program recruitment brochures, Web-based materials or other marketing tools.
- Develop an independent Ph.D. program at UMD.
- Support the IBS (Integrated BioSciences) graduate program in Duluth.

Space

Goal: Acquire or build adequate space to support the goals of the strategic plan and enable future growth.

Background: We have the following amount of space within the College of Pharmacy:

- Twin Cities Campus
  - WDH: 65,523 sq. ft.
  - Mayo: 2,280 sq. ft.
  - Masonic: 1,319 sq. ft.
  - PWB: 3,479 sq. ft.
  - TRF: 8,500 sq. ft.
- Duluth Campus
  - Kirby Plaza: 11,350 sq. ft.
- Total space for both campuses
  - 82,451 sq. ft.

The College of Pharmacy has seen unprecedented growth in the past decade. The number of faculty, staff and graduate students has increased considerably, and a new expansion in Duluth was established in 2003.

Perkins Will estimated in 1998 we needed 120,000 total assignable square feet on the Twin Cities Campus. However, with the increase in growth on the Twin Cities campus and the addition of the Duluth expansion, these estimates are no longer valid. Comparisons of regional schools including Iowa (150,000 sq. ft.), Ohio (94,480 sq. ft.), Purdue (82,945 sq. ft.), Wisconsin (119,787 sq. ft.), and Illinois (247,548 sq. ft.) show Minnesota at the bottom.

The ability to sustain and improve upon our current productivity and funding of research will be space limited. Additional space acquisition is essential for recruiting and retaining faculty.

Projected additional space needs in the next five years is approximately 47,000 sq. ft. (29,000 sq. ft. in Twin Cities and 18,000 sq. ft. in Duluth). However, the landlocked nature of WDH makes it necessary to consider requesting new space, likely removed from the majority of current AHC space.

Metrics comparing Minnesota with other regional schools are available to the design team for helping in developing the overall collegiate strategies regarding space needs.

Sub goal 1: Renovate, acquire and/or rent additional space on TC campus in close proximity to the college and AHC and renovate the Life Sciences Building on Duluth campus to meet immediate and short-term needs.

Strategies

- Identify AHC space that may become available (e.g., UMP clinics (PWB), etc.).

- Occupy all of Weaver-Densford Hall.
- Identify all current space inadequacies and estimate square footage needed and utility costs.
- Obtain additional ITV classroom space on the Minneapolis campus to accommodate three classes requiring ITV facilities.
- Obtain space to accommodate for new, integrated teaching strategies.
- Investigate relocation of student lockers (to first floor hallway, for example) in order to open up more study/lounge space for students.
- Renovate the greenhouse on 10th floor WDH to a student lounge or other needs.
- Acquire 600 sq. ft. for the Visualization and Simulation lab housed in 7-125 WDH.
- Acquire and furnish appropriate space for lab and office-based researchers for the Duluth Campus.
- Acquire appropriate space for a pharmaceutical care clinic.

Sub goal 2: Obtain support for state-of-the-art facilities to house the college in close proximity to the AHC (TC) and Duluth health sciences units.
Strategies

- Develop a detailed analysis justifying the need for a new facility.
- Build a new 150,000 sq. ft. facility for teaching, research, offices, etc., to house all Twin Cities pharmacy faculty on the Twin Cities campus.
- Integrate our need and request for new space into AHC's long-term infrastructure building plan.
- Investigate designs for spaces that facilitate innovative teaching, cutting-edge research and learning opportunities and promote a healthy working and learning environment.
- Begin planning for additional space after occupying the Life Sciences Building in Duluth.
- Develop a strategic work group to address fundraising and building a case for more space.

Faculty and Staff Development

Goal: Create an environment to maximize, foster, enable and or catalyze human potential and growth opportunities for faculty and staff.

Background: All schools within the University are being asked to do more with less. This trend promises to continue. It is important to ensure that each staff and faculty member has the knowledge and skills necessary to perform at his/her potential.

While the college provides assorted development opportunities, there is not a faculty or staff development plan per se. Additionally there is not a coherent identifiable development plan for faculty or staff that addresses needs at various career stages. In recent years, the college has conducted some new faculty orientations and some departmental teaching workshops. Some staff have had the opportunity to participate in PageMaster training, ITV training and WebCT training. The University offers training for functions such as PeopleSoft and FormsNirvana. Some faculty have taken advantage of sabbaticals and the mid-career teaching program offered by the University's Center for Teaching and Learning.

However other development opportunities—such as new faculty mentorship—may not be universally available. In addition, opportunities—such as a new faculty teaching program—which may be available in other colleges of pharmacy are nonexistent. Participation in development may be hampered by short staffing and lack of awareness that development opportunities are available.

Sub goal for staff: Create and implement a staff development plan.
Strategies:

- Conduct a needs analysis (Year 1).
- Develop an online handbook (Year 1).
- Offer orientations and cross training to college's activities across both campuses.
- Connect expectations for growth and development to annual reviews of staff (year 2).
- Ensure adequate staffing and cross training.
- Create a task force to implement and evaluate staff development plan.

Sub goal for faculty: Create and implement a faculty development plan.
Strategies:

- Conduct a needs analysis (Year 1).
- Develop an online handbook (Year 1).
- Increase awareness of professional development leave opportunities (e.g., SSL, sabbatical) for faculty.
- Encourage and reward mentors from within the college and networking outside the college.
- Develop a systematic orientation.

- Support and reward opportunities for faculty collaboration, especially cross-campus, in teaching and research.
- Strengthen annual review process for faculty.
- Create a task force to implement and evaluate faculty development plan.

Diversity

Goal: The College of Pharmacy will act on our commitment to diversity through changes in our work environment and increasing our recruiting, retention and development rates for diverse students, faculty and staff.

Background: As the population demographics in the US, including Minnesota, continues to be more racially and ethnically diverse, the college recognizes the need to recruit a more diverse student body and to recruit more minority faculty as positive role models and leaders in the pharmacy profession and in academic pharmacy.

While the college has been able to increase diversity within the student body and the administrative and clinical faculty, we have fallen behind in most measurements for diversity within our tenure-track and tenured faculty groups. Of our tenure-track faculty, 6.25 percent are racially diverse, compared to 19.6 percent of Pharmacy faculty nationally.* In addition, multicultural awareness needs to be more systematically integrated into the curriculum and into staff, faculty and clinical faculty or preceptor development. The graduate programs in the CoP are significantly more diverse than our current faculty population and could provide a pipeline for future faculty diversity within the college.

In 2004-2005, the college had 569 students on both campuses. The number of students who self-reported their ethnicity is outlined as follows:

- 3 American Indian
- 59 Asian
- 21 Black
- 5 Hispanic
- 36 unknown
- 444 White

Sub goal 1: Create and sustain a welcoming and inclusive environment in the college.

Strategies:

- Create a faculty and staff diversity committee charged with creating opportunities for diversity awareness and leading in the implementation of the recommendations of the alumni and student advisory committee and the report on current multicultural competencies. (Noted in the next two bullets.)
- Identify and create an advisory committee of minority alumni, community leaders and students to identify needs and opportunities.
- Measure multicultural competencies within the regular faculty, staff and preceptor groups. Institute development opportunities and programs to fill in the gaps.
- Support the creation of a Student National Pharmaceutical Association (SNPhA) chapter at the CoP and the work of the student diversity group on the Duluth campus.

Sub goal 2: Increase faculty diversity by at least an additional four tenured or tenure-track faculty. (As of June 2005, we have four racially diverse tenured or tenure track faculty.) Continue to increase diversity among the clinical and administrative faculty appointments. Increase staff diversity to available statistics for the area.

Strategies:

- Identify high potential graduate students and post-docs of color to mentor and recruit for future faculty appointments in the college.
- Provide incentives for departments that hire diverse faculty and staff.
- Increase diversity in candidates' pools by using more creative advertising and recruiting techniques and through measures identified in the symposium "Keeping our Faculties: Recruiting and Advancing Faculty of Color in Higher Education" and other best practices measures.
- Hire at least two of tenure-track or tenured faculty using funds provided by the University of Minnesota President's Bridge Program.
- Increase the focus and commitment for the PCHS and ECP Departments to recruit racially diverse tenured or tenure-track faculty.

Sub goal 3: Increase college student admissions of under-represented and disadvantaged candidates.

Strategies:

- Develop reporting mechanisms to locate and track recruits and recruitment success.
- Tap into minority academic achievement grants and monies, in addition to increasing participation in AHC and University programs designed to recruit students in under-represented groups.
- Work in cooperation with the Curriculum Design Strategic Initiative to ensure that multicultural competencies are fully integrated into the newly designed curriculum.

* AACP data from "2004-2005 Profile of Pharmacy Faculty."

Technology

Goal: The College of Pharmacy will pursue the most current technology for support of all programs and operations.

Background: The college is increasingly dependent on technology for virtually all programs and activities. Faculty, staff and students must have access to needed technology support. It is imperative that technology be as close to state-of-the-art as possible and be easily used by all. The college can meet its goals in the use of technology by responding to rapid changes, updating equipment and training personnel frequently. Technology for communication between campuses, especially, must be as reliable and fully supportive of teaching, learning and business communications as possible. Advances in technology will significantly enhance teaching and learning and may even influence the nature of pharmacy practice. To meet the ever-changing needs for technology, the college will need resources for expertise, training and equipment.

Sub-goal 1: The college will develop efficiencies in active learning and education through the use of technology.
Strategies:

- Develop secure patient case databases from medical records.
- Optimize ITV and other instructional technologies to ensure no barriers exist.
- Increase utilization of Web-based educational strategies.
- Provide Web cam support to faculty who desire this type of communication between campuses or regional sites.

Sub-goal 2: Optimize the accessibility, utility and security in the technology infrastructure of the college.
Strategies*:*

- Enhance/improve wireless speed and access.
- Preclude the use of mobile communication devices (cell phones/PDAs) in classroom/testing settings unless permitted by the instructor/course director.
- Ensure access for all to storage of data on servers.
- Develop optimal data storage and back-up systems for all users.
- Implement network security and security policy.

Sub-goal 3: Facilitate communication, committee work (including student committees), administration and outside business activities with technology.
Strategies:

- Create more technologically equipped meeting and classrooms.
- Create methods for easy telephone or WebCam access of professors by students, Duluth to the Twin Cities and the reverse.

Change creates opportunities

Goal: Capitalize on College of Pharmacy resources to maximize return on investments.

Background: To capitalize on changes in the health care environment, the college must develop mechanisms to triage new strategic areas requiring development. This development may occur at the individual, departmental or the college level. The selected strategic development initiatives will change on a yearly basis in response to the current environment and faculty expertise.

In addition, existing college-supported strategic initiatives should be evaluated under a business model. For current initiatives, this should occur within one year. After analysis, the college will decide to invest further, maintain the current level of support or divest.

Sub goal 1: Assess opportunities and invest human, financial and intellectual resources to accomplish strategic initiatives.
Strategies:

- Develop a practice plan to maximize college revenues from various payer models.
- Develop a network/center of pharmacogenomic researchers.
- Invest in a center that evaluates best models for pharmacy practice compensation.
- Invest in technology-enhanced learning initiatives in order to create a dynamic portfolio of educational programs.
- Explore opportunities created by the University's self-insured prescription drug plan.
- Explore opportunities created to provide MTMS in the new UMP clinics.

Sub goal 2: Evaluate current initiatives under a business model that includes return-on-investment analysis.
Strategies:

- Compile a portfolio of genetic methodologies.
- Review current affiliations to identify best financial and practice models.
- Leverage College of Pharmacy expertise and resources to develop and offer external sales through:
    - Core Lab
    - Analytical Labs
    - Educational programs for pharmacists, health professional students, university students and the pharmaceutical industry.

Public Awareness and Advancing the Profession of Pharmacy

Goal: Enhance public awareness of the College of Pharmacy, the roles of pharmacists and pharmaceutical scientists and advance the profession of pharmacy through the expertise of our faculty.

Background: The College of Pharmacy increased its public presence during the last five years by employing a number of strategies. The college's involvement in state and national associations has increased as more faculty hold elected offices in national and state associations. The college has hosted and plans to host meetings between and among all areas of pharmacy practice. Media frequently consult with and quote college faculty on relevant topics and their research. As a result of the goals of the last strategic plan, the college hired a communications director to help facilitate the college's interactions with its constituencies, lawmakers, media and the public.

Sub goal 1: Drive changes in the practice of pharmacy that improve patient outcomes.
Strategies

- Share faculty expertise by:
    - Encouraging and enabling faculty to capitalize on local and regional pharmacy issues/initiatives such as external practioner development or education (CEs, etc.), rural pharmacy preservation act, etc.
    - Incorporating junior and senior faculty shared expertise and encouraging junior mentoring.
    - Creating an advisory panel to focus on opportunities to capitalize on external grant opportunities and government allocations.
    - Increasing co-funded faculty positions in clinical practice.
- Develop and educate preceptors to allow every student an opportunity to take a pharmaceutical care rotation.
- Persist with the concept of integrating all Minnesota communities into the college activities and learning experiences.

Sub goal 2: Promote public awareness of the role of pharmacists, pharmaceutical scientists and the contributions of the college.
Strategies:

- Engage in Pharmacy Month (October) to promote pharmacy by using visual campaigns, writing for local papers, etc.
- Foster the partnership between the CoP and state associations to continue to use faculty expertise for legislation that is positive for pharmacy.
- Coordinate public awareness efforts by:
    - Educating and involving the faculty on existing student service initiatives at Central Council or College Assembly meetings by inviting the student organizations to present their projects.
    - Assisting students in writing press releases to promote their services.

- Utilizing the Advancement Team to invite community leaders and decision makers to college events that show the value of pharmacy such as the Melendy Lecture.
- Foster partnerships between the CoP and other health associations such as the MN Rural Health Assoc.
- Improve internal communications within the college.
- Use interactive tools (ITV, Web conferencing) to allow faculty to present research to community and opinion leaders.

Sub goal 3: Support and participate in efforts to change pharmacist compensation models for medication therapy management services to improve efficient use of health care funds.

Strategies:

- Retain a high-quality lobbying firm together with MPhA.
- Help develop and promote successful Medication Therapy Management Services (MTMS) programs.
- Identify and promote existing successful models of medication therapy management services once the program begins.
- Conduct and consolidate the research that proves the value (benefit to patients and efficient use of health care funds) of pharmacy.
- Develop a consistent message (brand the campaign) and disseminate it to the college and faculty.