

ACADEMIC PROGRAM REVIEW

SELF-STUDY REPORT

Division of Physical Therapy
Department of Rehabilitation Medicine
School of Medicine
University of Washington
Seattle, Washington

Doctor of Physical Therapy (DPT)
<http://rehab.washington.edu/education/degree/pt/default.asp>

1st Review

Mark Guthrie, PT, PhD, Head

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EXECUTIVE SUMMARY

The University of Washington Doctor of Physical Therapy (DPT) Curriculum is the primary component of the Division of Physical Therapy. The Division is located in the Department of Rehabilitation Medicine, of the School of Medicine. In addition to other activities, all faculty and staff of the Division are engaged in teaching and/or managing the DPT Curriculum.

The DPT program is fully accredited by the Commission on Accreditation in Physical Therapy Education. From 2004-2009, 30-32 students were accepted each year into the 3-year (11 consecutive quarters) DPT Curriculum. In 2010, 40 students will be accepted, and thereafter 45 will be accepted each year. Over the past five years all graduates of the program have passed the Physical Therapy Licensing Exam, and all have gotten jobs shortly after graduation (except for a small number who enrolled in post-professional education programs).

Within the Division of Physical Therapy there are nine core faculty members (8.2 FTE), one emeritus faculty, 2 part-time clinical teaching faculty, 2 part-time graduate teaching assistants, and 2 staff (one full-time and one part-time).

Since 2004 the DPT program has operated with a self-sustaining funding model. Self-sustaining status has proven to be beneficial in allowing us to successfully meet our financial demands. Since 2004 we have expanded our faculty and added additional services. At the same time, tuition rates for the DPT students have been only slightly higher than UW Tier II rates, and are less than they would have been under other models we considered.

Our primary objective is to successfully educate excellent physical therapists. We are also committed to service provision, research, leadership, and the dissemination of knowledge. Particular challenges we are considering, and directions in which we might wish to move include:

- Increasing the diversity of our student and faculty groups.
- Experimenting with, or establishing different faculty models and mixes in the Division of Physical Therapy.
- Helping to alleviate the shortage of physical therapists.
- A greater commitment to training (increasing the supply of) future faculty and advanced clinicians.
- Establishing some type of financial aid system or opportunity for students.
- More online courses.

In addition to the prescribed components of the Self-Study, the following “Unit-Defined” questions were identified. These encompass issues that are of great importance to us, on which we feel we have made excellent progress, and for which we welcome the scrutiny and input of the reviewers.

1. How are faculty members working as a team to provide a well-integrated, cohesive, physical therapy curriculum?
2. How is evidence-based practice integrated in the DPT curriculum?
3. How are clinical experiences integrated within the DPT program?

Over the past ten years the Division of Physical Therapy has made enormous strides. Our faculty is both larger and much more qualified, competing at all levels in the highly competitive environment of the School of Medicine. Given our faculty, our recently

remodeled facilities, and our outstanding students, we look forward to the continued development and success of the DPT program. The faculty shares in the honor and great responsibility of guiding the DPT students, a true strength of our program, in their journey to becoming successful, productive professionals.

Section 1: Overview of Organization

Mission & Organizational Structure

- **Describe the overall mission of the unit. What does the unit believe in and what are its goals?**

University of Washington Division of Physical Therapy Mission Statement

The mission of the Division of Physical Therapy is to promote learning, service provision, research, leadership, and the dissemination of knowledge in the profession of physical therapy and to society.

The Division is committed to providing a quality learning environment for the education of knowledgeable, self-assured, adaptable, reflective, culturally competent physical therapists who are prepared for general practice. Such practitioners will, by virtue of critical thinking, life-long learning, and ethical values, render independent judgments concerning diverse patient/client needs across the lifespan, promote the health and wellness of the client, and enhance the professional, contextual, collaborative, and inter-disciplinary foundations for practice. These practitioners will be prepared to contribute to society and the profession through practice, teaching, administration, and discovery and application of new knowledge about physical therapy.

The Division assumes a special responsibility to people in the Northwest region and is committed to providing access to education for minorities that are under-represented in the profession of physical therapy. We are dedicated to maintaining the highest ethical standards in all program activities and respecting diversity among clients, faculty members, staff, and students.

In addition, eight Trans-curricular Objectives (Effective Communication; Diversity: Individual Cultural Differences; Life Span Perspective; Professionalism; Critical Inquiry and Decision Making: Evidence-based Practice; Physical Therapist as Educator; Safe and Efficient Practice; Interprofessional Collaboration) are incorporated in all aspects of the DPT Curriculum. These represent the student competencies that we strive for in all courses. (See Appendix E.)

- **List: (1) undergraduate and graduate degrees offered in the unit, including special pathways, options, tracks, or majors/minors, and fee-based programs within these degrees; and (2) certificate programs offered, if any.**

The terminal program degree is the **Doctor of Physical Therapy (DPT)**, which follows the practice doctorate model of the Graduate School. The program is fully accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). The program consists of 11 consecutive quarters of instruction (8 didactic + 3 internship), with a new cohort of students beginning each fall, followed by graduation in June three years later.

From 2004-2009, 32 students were accepted each year into the 3-year (11 consecutive quarters) DPT Curriculum. In 2010, 40 students will be accepted, and thereafter 45 will be accepted each year. (See Appendix D and the Table of Enrollees/Degree Granted 2004-2009 and Appendix G for the Curriculum Plan.)

- **How is academic and non-academic staffing within the unit distributed? (Please refer to the organizational chart in Appendix A)**

The DPT Program is housed in the Division of Physical Therapy within the Department of Rehabilitation Medicine of the UW School of Medicine (see Appendix A). Peter Esselman, MD, is the Department Chair and Ann Reite is the Department Administrator. They supervise and coordinate several types of divisions within the Department, e.g., Clinical Divisions (Rehabilitation Services at UW Medical Center, Harborview Medical Center, Seattle Children's Hospital, Veteran's Affairs Medical Center, etc.), Financial Divisions (Fiscal Services, Grant/Contract Services, etc.), and Academic Divisions (PhD in Rehabilitation Science, Physical Therapy, Occupational Therapy, Prosthetics/Orthotics, Rehabilitation Counseling, Neuropsychology, Speech Pathology, Electrodiagnostic Medicine, Residency Training, PMR Medical Student Education, Research Development).

Within the Division of Physical Therapy there are nine core faculty members (8.2 FTE), one emeritus faculty, 2 part-time clinical teaching faculty, 2 part-time graduate teaching assistants (TA), and 2 staff (one full-time and one part-time). The TA's provide instructional assistance throughout program courses. The full-time Program Operations Specialist provides support to all program faculty, coordinates student services, and interfaces with the general public for the admissions process. The part-time Program Coordinator acts as an assistant to the Director of Clinical Education (DCE) in order to facilitate the extremely complex internship/rotations process. (See Appendix A for full titles of program faculty and staff.)

It is important to understand that much shared and collaborative teaching occurs within the Department, primarily among Physical Therapy, Occupational Therapy, and Prosthetics & Orthotics. For example, faculty from those three divisions all contribute to REHAB 442: Clinical Kinesiology and REHAB 448: Kinesiology Lab. In addition, many administrative tasks such as budget and grant management are handled at the departmental level.

- **Describe the manner in which shared governance works in the unit, along with how the unit solicits the advice of external constituents.**

Governance of the Division of Physical Therapy is a collaborative effort. This springs from the viewpoint that each faculty and staff member is highly talented, capable, and knowledgeable. Each deserves the support and opportunity to allow him or her to express those traits as efficiently and enjoyably as possible, and to contribute to the vision, advancement, and governance of the Division. We are constantly in informal contact, and formally in weekly faculty meetings and approximately semi-annual "retreats." Our relatively small size makes the group process easier. That said, we rely heavily on input at the departmental, school, and university levels. Examples of decision making mechanisms are:

1. Budget: Each year the Head of the Division prepares a budget, with input from PT faculty as well as the Department Administrator. This budget is approved by the Chair of the Department, the Dean of Educational Outreach, and the University Provost. Throughout the

year, major spending decisions (a camera in the movement lab, for example) require approval from the Chair. Currently, all travel is subject to approval at the School level.

2. Hiring: Addition of “tenure-track” faculty always requires a national search by a departmental committee and approval at all levels. Personnel for other positions are recommended by the Division and approved at the School of Medicine.
3. Policy changes: These issues are discussed and proposed by the Division faculty, and approved by the Physical Therapy Advisory and Evaluation (A&E) committee. The A&E committee is comprised of 8-10 members, some from the Division but including representatives from the Department and School. The A&E committee consults on and approves changes in Division policy, and student issues such as selection and grievances.

We work very closely and collaboratively with other divisions in the Rehabilitation Department, most notably Occupational Therapy and Prosthetics & Orthotics. In addition, we maintain close ties with other units at the University, such as the School of Nursing, and outside the University, primarily other physical therapy programs in the Northwest, and seek their guidance on a variety of issues as they arise.

Budget & Resources

- **Outline the unit’s budget (Please refer to the budget summary in Appendix B).**

Since 2004 the DPT program has operated with a self-sustaining funding model under UW Educational Outreach (UWEO). UWEO works with several schools, helping support 30 graduate degrees (including the DPT) and five undergraduate degrees. Self-sustaining status has proven to be beneficial in allowing us to successfully meet our financial demands. Since 2004 we have expanded our faculty and added additional services. At the same time, tuition rates for the DPT students have been only slightly higher than UW Tier II rates, and are less than they would have been under other models we considered.

- **How does the unit evaluate whether it is making best use of its current funding and human resources?**

As noted above, each year’s budget is scrutinized at several levels, not only from the perspective of the “bottom-line” but also per appropriate use of funds. Our Department Administrator has vast experience preparing and managing budgets, as do personnel in Educational Outreach. We are pleased that each year under the self-sustaining budget we have accomplished our objectives of keeping tuition as close as possible to UW Tier II Graduate level tuition while also being able to cover all expenses.

- **Describe any fund-raising/development plan, or grant/contract-getting strategies used to seek additional funding.**

When we set the Physical Therapy budget each year, to be prudent we assume no external funding. However the Department of Rehabilitation Medicine has a long history of grant success, with much collaboration among divisions, and the PT faculty has realized increasing success in garnering external support (currently five of the full-time PT faculty are partly or largely supported by external funds). These funds allow us additional options, such as hiring adjunct instructors and decreasing teaching loads of the grant-funded individuals.

The development office for the School of Medicine, (UW Medicine Advancement) assists us in fundraising efforts. Typically this amounts to several thousand dollars each year, which is used to supplement equipment or facilities that directly affect the students – such things as new treatment tables, books, student computer stations, or student travel. In addition, we have had some large donations that now support student scholarships. Currently our fundraising efforts are focused on the teaching space remodel. We have raised enough to significantly enhance that effort and are confident in obtaining additional, larger donations.

Section II: Teaching & Learning

Student Learning Goals and Outcomes

The Division of Physical Therapy offers a graduate professional entry-level education program in which graduates earn a Doctor of Physical Therapy (DPT) degree. All responses below relate to teaching and learning within this program.

- **What are the student learning goals (i.e., what students are expected to learn)?**

The overall goal of the program is to train knowledgeable, self-assured, adaptable, reflective, culturally competent physical therapists who are prepared for general practice. Specific curricular objectives are designed to prepare graduates in the following areas:

- | | |
|--|--|
| 1. Communication | 11. Prognosis |
| 2. Appreciation of individual and cultural differences | 12. Plan of care |
| 3. Professional behavior | 13. Intervention |
| 4. Critical inquiry and clinical-decision making | 14. Outcomes measurement and evaluation |
| 5. Education | 15. Prevention and wellness |
| 6. Professional development | 16. Management in various care delivery system |
| 7. Screening | 17. Administration |
| 8. Examination | 18. Consultation |
| 9. Evaluation | 19. Social responsibility |
| 10. Diagnosis | |

- **Describe and discuss the manner in which the unit evaluates student learning (e.g., classroom- and/or performance-based assessment, capstone experiences, portfolios).**

The DPT program consists of 2 years which are primarily classroom-based learning, and 1 year of clinical internships. A graduate project at the end of the program serves as the capstone experience. The methods described below cover student evaluation during coursework, clinical internships, and the capstone experience. Methods for assessing the knowledge, skills, and behaviors are critical at each stage, because the Division of Physical Therapy offers a clinical doctorate.

a. Coursework: Student evaluation during coursework uses a variety of tools to assess knowledge, skills, and behaviors. Each course uses a variety of written, on-line, and practical evaluation methods. Courses commonly include written assignments, quizzes, and tests. Increasingly, online tools are being used for assignments, quizzes, tests, discussion forums, and group projects. Most courses include some laboratory or practical components. Examples of the evaluation of student learning that occurs for these components include laboratory exams, mock clinical experiences with simulated patients, and supervised clinical experiences. Evaluation of these components is intended to assess student knowledge (e.g., identification of certain structures in anatomy), skills (e.g., testing muscle strength using manual muscle testing), and behaviors (e.g., professionalism during interactions with simulated patients).

Academic and professional advising occurs at a minimum of every other quarter during the first 2 years of the program. Students meet individually with a faculty advisor to discuss academic progress and professional development.

b. Clinical Internships: During clinical internships, student learning is assessed primarily using the Physical Therapist Clinical Performance Instrument (CPI). The CPI is a standardized tool, required by the American Physical Therapy Association. It is designed to provide an overall assessment of clinical competence in a broad range of clinical settings and throughout the continuum of clinical learning experiences. The CPI is completed by the clinical instructor and by the student at the mid-point and at the end of each clinical experience. The student and clinical instructor rate the student's performance on 18 criteria in three broad areas:

- 1) Professional practice: safety, professional behavior, accountability, communication, clinical reasoning, and cultural competence
- 2) Patient management: screening, examination, evaluation, diagnosis and prognosis, plan of care, procedural interventions, educational interventions, documentation, and outcomes assessment
- 3) Practice management: financial resources, direction and supervision of personnel, professional development

c. The Program Capstone Experience: At the end of the program, a capstone experience is used to evaluate student performance in the program as a whole. This consists of an evidence-based case report for each student, with practical, written, and oral examination components. For the graduate project, each student must choose a case during their clinical internships. The student evaluates and treats this patient with guidance and supervision from the clinical instructor and faculty mentor. The student must then present a written and oral report demonstrating their ability to provide skilled, evidence-based physical therapy patient care. The capstone experience requires students to demonstrate their competency in skilled care by producing a critical, scholarly analysis of the patient care process as it pertains to a single patient.

- **What methods are used to assess student satisfaction? What efforts are made to gauge the satisfaction of students from under-represented groups?**

A variety of methods are used throughout the program to assess student satisfaction. During the coursework phase of the program, general student satisfaction is gauged during academic and professional advising sessions. Student satisfaction within each course is assessed using either standardized course evaluations through the Office of Educational Assessment or individualized course evaluations. In addition, student satisfaction with outside speakers is assessed using guest

lecturer evaluations. For many courses, the opportunity to provide anonymous feedback to course instructors is provided on the course website (using Catalyst Umail).

During clinical internships, student satisfaction is assessed through phone or in-person meetings with the Director of Clinical Education during each clinical experience. In addition, the students complete a standardized evaluation of the clinical experience and clinical instruction.

Student satisfaction with the program as a whole is assessed in a number of ways, including annual program evaluation surveys while students are enrolled in the program, alumni surveys, focus groups, and student-faculty forums. The annual program evaluation survey is designed to gather input from the students on their experience in the program as a whole. Focus groups, typically coordinated through the Center for Instructional Development and Research, have been used to assess both specific courses and the program as a whole. Student-faculty forums are intended to promote a dialogue between the students and faculty about strengths of the program, areas for improvement, and strategies for improvement.

- **What are the findings of the assessment of student learning in each program of study?**

Successful student learning in the DPT program is evidenced by the high rate of program completion and high passing rates for the national physical therapy licensure examination. On average, over 95% of students enrolled in the DPT program graduate on time. In the first five years of the DPT program, 100% of graduating students have passed the licensing exam.

- **How has the unit used these findings to bring about improvements in the programs, effect curricular changes, and/or make decisions about resource allocation?**

While the overall findings are positive, the assessment of student learning and satisfaction has suggested areas for improvement, such as changes in the organization and content of specific courses, improved integration of the curriculum as a whole, and increased clinical exposure throughout the program. At the level of individual courses, a number of specific changes have been made, including increased clinical experiences during applied musculoskeletal and neurologic courses offered during the second year. In order to improve the integration and consistency of the curriculum, faculty members have initiated curricular cohesion meetings. These meetings provide an opportunity to discuss conceptual frameworks, procedures, and skills that are common to many classes in order to provide the most consistent and effective experience for students.

- **If applicable, note the courses typically taken by undergraduates who will not be majors in any of the unit's programs. Are there specific learning goals in those courses designed to accommodate such "non-major" students? If so, how is student achievement in reaching these goals assessed?**

There are several courses that are designed to be taught conjointly to physical therapy, occupational therapy, and prosthetic and orthotic students, including anatomy, kinesiology, and neuroscience classes. The physical therapy, occupational therapy, and prosthetics and orthotics programs are all health professional programs, and the course objectives and requirements are the same for all students.

Instructional Effectiveness

- **Including the use of standardized teaching evaluation forms, describe and discuss the method(s) used within the unit to evaluate quality of instruction.**

In order to document strategies used to evaluate the quality of instruction, identify opportunities for training in teaching, and exemplify specific instructional changes made by instructors in response to teaching evaluation, an on-line survey was conducted to query faculty. Multiple methods for evaluating instructional effectiveness are used by faculty in the DPT program.

To gain feedback from students the faculty use a variety of standardized teaching evaluation forms from the UW Office of Educational Assessment: (e.g., large lecture, small lecture, seminar/discussion, and educational outcomes) and comment forms (individualized by the instructors); faculty developed on-line surveys/evaluations via UW Catalyst (e.g., individualized course evaluations, guest lecturer evaluations); anonymous e-mail to faculty via class web pages; open discussion with the class and open invitations to give faculty feedback; and data collection and facilitated discussion by consultants from the UW Center for Instructional Development and Research.

The first and second-year students have elected class members to participate in faculty meetings and bring issues/feedback forward. Faculty members also evaluate their instruction based on student performance on exams and assignments (e.g., specific item analysis to identify areas that students did or did not appear to understand well). When faculty use exams that are scanned and graded via mark sense, they receive reports with specific item analysis for test improvement and validation. Additionally the analysis of student questions, the sophistication of class discussion, and student responses on “One-Minute Papers” also provide indicators of instructional effectiveness.

Faculty routinely prepare guest lecturers to teach in their courses. After the guests’ sessions, students and faculty members evaluate the guest lecturers and faculty provide feedback to the guest lecturers to improve instructional quality and inform decisions regarding future participation in the courses.

Faculty members reflect on their development as teachers through the compilation of their teaching portfolios (required for the promotion process) that include, but are not limited to, articulation of one’s philosophy of education, and documentation of curriculum development and instructional design, teaching skills and assessment of learner performance.

Our faculty is very collaborative and we freely use each other to consult on and review individual and collaborative instructional materials and methods. Faculty also use the department’s Peer Teaching Evaluation Form as a tool for assessing the effectiveness of instruction.

In our advising sessions with the students, we routinely ask them to reflect on teaching in the program, to identify what is going well and to make suggestions for improvement. Our quarterly review/preview of courses provides another opportunity to faculty to reflect on teaching and learning in our courses and receive feedback from colleagues.

- **Please note all opportunities for training in teaching that are made available to any individuals teaching within the unit (including graduate students). These may be opportunities that support e.g., teaching improvement, innovation, and/or best practices.**

Faculty and graduate students take advantage of multiple opportunities to improve instructional effectiveness. For example, teaching assistants attend the TA Workshops and others sponsored by the Graduate School. Faculty members have attended numerous offerings of the UW Center for Instructional Development and Research and UW Teaching Academy (e.g., Faculty Workshops on Teaching and Learning). PhD students teaching in the DPT program have all taken a minimum of one course on teaching/learning in the Department of Medical Education and Biomedical Informatics (MEBI) (MEBI 520: Teaching in Medical Education) and have access to additional courses on teaching through MEBI (e.g., MEBI 521: Evaluation of Learning in the Health Sciences) and the College of Education (e.g., EDPSY 501: Human Learning and Educational Practice). PhD students also complete mentored teaching practica that include faculty evaluation and video analysis of their teaching. Faculty and PhD students also take advantage of numerous offerings from the Institute for Translational Health Sciences that focus on teaching and learning (e.g., giving feedback, mentoring). In the PhD program and postdoctoral rehabilitation training programs (currently funding 2 PTs) a number of seminars are devoted to topics in teaching such as how to prepare effective presentations, lead discussions, develop teaching portfolios, work with challenging students, etc.

The Division of Physical Therapy has encouraged and sponsored faculty attendance at workshops focused on teaching, for example on evidence-based practice (University of Southern California) and cultural competence (University of San Francisco; UW Center for Cultural Proficiency in Medical Education CC-PriME; and the National Multicultural Institute). The UW Postdoctoral Association (UWPA) also provides workshops and resources on teaching and mentoring for Post Doctoral Fellows. In this past year, Sujata Pradhan, PT, PhD, a UW-ARRT Fellow, was honored by the UWPA with the Best Speaker Award at their annual research symposium, where Dr. Valerie Kelly was also honored with the UWPA Mentor of the Year Award. Faculty members in the Division have also been nominated for the University-wide Landolt Distinguished Graduate Mentor Award.

The program also fosters teaching improvement at its clinical sites through in-services and continuing education and through participation in the Clinical Instructor and Education Credentialing Program (CIECP). Cynthia Robinson, Director of Clinical Education, is an APTA-credentialed trainer in the CIECP, a 15-hour continuing education course which applies supervision, administration and mentoring techniques to physical therapy clinical education. Ms. Robinson has credentialed at least 150 clinicians per year since 2005. The program works in collaboration with other education programs in the state and in the Northwest Intermountain Consortium to offer this course to participants at minimal cost. (While this course is intended to facilitate improved quality of clinical education experiences for our students, physical therapist clinicians also gain valuable management skills that can be applied to general clinical practice.)

- **Describe specific instructional changes you have seen made by instructors in response to evaluation of teaching within the unit.**

Based on feedback about their teaching, faculty members have implemented a number of teaching innovations. For example, continued refinement and focus of course content occurs

based on teaching feedback (e.g., increased focus of content, more clinical experiences within the didactic portion of the curriculum including the elective, REHAB 600: Independent Study which involves a mentored clinical experience). Feedback from the students has resulted in more review sessions, more practice time, and the establishment of a weekly two-hour dedicated lab time for each cohort of students. One faculty member has developed an on-line video bank of 77 demonstrations for students to access in response to requests for additional demonstrations outside of class. In addition, faculty have worked on increasing the active learning within class sessions, providing more laboratory time, and developing stronger scaffolds for future learning. Based on student feedback the faculty has responded with a curricular consistency/cohesiveness initiative. (See also Sec. B #1.)

Teaching and Mentoring Outside the Classroom

- **Describe and discuss how faculty members are involved in undergraduate and graduate student learning and development other than through classroom teaching (e.g., informal learning, independent studies, research involvement, specialized seminars or workshops, etc.)**

DPT faculty members provide many learning opportunities for graduate and undergraduate students outside of the classroom. For example, several faculty members provide the opportunity for graduate and undergraduate students to be involved in their research. These opportunities range from formally mentoring students who are enrolled for credits in a research Independent Study to more informal opportunities such as lab visits and tours, consulting on interdisciplinary projects with students in other programs (e.g., design program: product design, OT program workspace ergonomic assessments). One of the faculty members has developed an international interdisciplinary rehabilitation learning experience for PT and OT students from the UW and other schools in the state. Students and an interdisciplinary team from Medical Teams International prepare for the in-country experience in Moldova by learning about the country and culture, gathering resources to bring with them, and preparing teaching materials to use on site. This group of volunteers then participates in mentored clinical and teaching experiences in Moldova for 2 weeks during the break between summer and fall quarters. (Web site: <https://courses.washington.edu/moldova/>)

The following are examples of how faculty members have engaged and mentored students in community-based experiences. The DPT faculty instituted a Falls Prevention Awareness Program that occurs at community sites across the state each fall quarter. This program has involved both PT and OT students from several programs in the state and has received recognition from the State Governor. Other faculty members engaged students in conducting developmental screenings at the annual Latina Health Fair in North Seattle and involved students in “dance/movement” classes for preschoolers with developmental disabilities at the UW Experimental Education Unit. Faculty and students have sponsored “PT Camp” that involved hands-on learning about the profession for middle and high school students from low-income backgrounds as part of the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP) at UW. Others have conducted community bike fit events with students and accompanied students to the state capital on Physical Therapy Day for active learning in the legislative process. Other events bringing faculty and students together include the Rehabilitation Medicine Open House for prospective students, UW career events, and events sponsored by the Graduate Opportunities Minority Achievement Program (GO-MAP).

- **Describe how the unit recruits undergraduate and graduate students, in general, and any additional efforts to recruit students from under-represented groups.**

The recruitment for the DPT program takes place using a variety of strategies. The program is listed on the web site of the American Physical Therapy Association (APTA), the profession's accrediting body, on www.gradschools.com, and in Peterson's On-line Guide. The DPT web pages provide detailed information about the program and the application process (<http://rehab.washington.edu/education/degree/pt/default.asp>). The faculty and Program Operations Specialist make themselves available to consult with prospective applicants (phone, in-person, e-mail) and provide opportunities for them to connect with students currently in the program and to sit in on classes.

Program representatives share materials about the program at a variety of events on campus (e.g., Health Sciences Open House, Dawg Days, Rehabilitation Medicine programs Open House, Minority Association of Pre-health Students (MAPS) Conference, Pre-PT Club) and at several other university health fairs in the area (e.g., Central Washington University, Western Washington University, Portland State University). Individuals from under-represented groups offered admission to the DPT program are contacted by phone to provide a personalized outreach and an opportunity to answer questions or discuss considerations related to enrollment.

The DPT Program has been involved in a number of activities to recruit students from under-represented groups. In 2007 a Diversity Recruitment and Retention Council (DRRC) for all of the educational programs in the department was established at the initiative of a DPT faculty member who chairs that group. The group is comprised of faculty, students, community therapists from diverse backgrounds, Dr. David Acosta, Associate Dean, UW School of Medicine Office of Multicultural Affairs (OMCA), and Dr. Juan Guerra, Associate Dean of the Graduate School, Graduate Opportunities and Minority Achievement Program (GO-MAP). Some of the activities of the DRRC have included the development of a diversity statement, review and revision of program materials, establishing links to diversity resources on the front page of each program's Web site, developing an initial Departmental Diversity Plan and interdepartmental student group collaborations. Recently (12/10/09) Dr. David Acosta consulted with the DPT faculty to discuss possibilities for increasing diversity in the student body. This included consideration of our current admissions process, a mission-based admission policy, and potential collaborations with the OMCA to enhance our recruitment efforts.

As part of the recruitment process, some prospective students elect to visit the program. A current PT student from an URG volunteers to escort prospective URG students during such visits. Two DPT students from URGs facilitated the re-development of the UW Pre PT Club, a registered student organization, that has a diverse membership.

- **Describe how the unit works with undergraduate and graduate students to ensure steady academic progress and overall success in the program, and any additional efforts to support students from under-represented groups.**

To the end that we consider our students are our collective product, the DPT faculty are committed to the students' success and invite interaction with them. They use several strategies to ensure steady academic progress and overall success in the program. In the first quarter of the program, students are assigned their academic advisors with whom they will meet at a minimum biannually (advisors are always available to meet more frequently if needed). Prior to the individual advising sessions, advisors solicit feedback from other faculty about the student's

progress, areas of strength, and any areas of concern. Prior to the advising sessions, the students complete the Student Advising form that queries how they are doing in the program and a self-assessment of their professional behaviors. The students bring their PT Portfolios to (or prior to) the meeting for the faculty to review. The Advising form, portfolio review and faculty feedback form the basis for the review. We are committed to using these advising session to give the students positive feedback as much as addressing any areas of concern. As needed, the student and advisor formulate an action plan to address any salient issues. The faculty also invites feedback about the program at the advising sessions.

In the closed portion of our faculty meetings, student progress is discussed and a preliminary strategy to address concerns is generated. If a situation requires additional resources, the DPT Advisory and Evaluation Committee is consulted. The Program Director, Graduate Program Coordinator and the Program Operations Specialist work closely in monitoring student progress.

There are a number of student-centered activities that also promote progress in the program. Each second-year student ‘adopts’ a first-year partner. With some student partners this relationship expands from an initial social orientation to the program to an ongoing peer-mentoring relationship that lasts throughout the program and beyond. The second year-students also provide mentoring to the first year students in establishing their student governance and serve as peer tutors when additional help is needed.

- **Describe how the unit works with undergraduate and graduate students to prepare them for the next phases of their academic or professional lives.**

The entirety of the DPT program is focused on preparing students for entry-level practice as physical therapists. The students are prepared for entry into the profession based on their strong foundation in the basic and medical sciences, their clinical and other coursework, their patient/client experiences in the didactic portion of the program, and culminating with the clinical education portion of the program (internships). Professional and practice issues are addressed from the first quarter of Physical Therapy Seminar (REHAB 517), continued throughout the four-quarter series, and followed by coursework in Administration (REHAB 416) and Professional Issues (REHAB 529).

As students enter the program we interact with them as physical therapy professionals. There is the expectation of professional behavior in all aspects of the program. This is expressly stated in the DPT orientation, articulated in the Transcurricular Objectives (Appendix E) that are repeatedly revisited throughout the program, and modeled in the interactions with faculty and staff in the division, the department, and with our clinical partners in the community.

Students develop their Physical Therapy Portfolios as a demonstration of their mastery of the Transcurricular Objectives and evolving development as physical therapists. The students are also made aware of the potential use of their portfolios as a marketing tool when job searching. The DPT program provides the students with a resume-writing workshop and gives them feedback on their professional letters of introduction prior to sending them out to their clinical instructors. Each year the students hold a Job Fair on campus, bringing them in contact with potential employers. The program also makes available sample copies of several licensure exam study guides for students’ use.

Section III: Scholarly Impact

- **Describe the broad impact of faculty members' research and/or creative work. Feel free to note specific individuals and how their work embodies the unit's mission, or distinguishes the unit from those at peer institutions.**
- **Are there any student accomplishments (both undergraduate and graduate) that have had broad impact on the field?**
- **List any collaborative and/or interdisciplinary efforts between the unit and other units at the University or at other institutions, and the positive impacts of these efforts.**

The mission of the Division of Physical Therapy is to promote learning, service provision, research, leadership, and the dissemination of knowledge in the profession of physical therapy and to society.

The University of Washington provides a rich and stimulating environment within which to meet this mission. Within that larger community and within the Department of Rehabilitation Medicine, motivated faculty, have the opportunity to flourish. This has been particularly true over the past ten years, during which the level and breadth of expertise, even the nature of the faculty has advanced substantially. Early in that time period, the leadership of Dr. Guthrie, combined with the widely recognized accomplishments of faculty such as Dr. Anne Shumway-Cook helped establish both a direction and a vision of excellence that continues today. Examples of faculty activities that embody the unit's mission include the following:

Deborah Kartin, PT, PhD

Dr. Kartin's research interests include the development of postural control and understanding the developmental effects of prenatal exposure to alcohol and other drugs, and the experience of pediatric pain. This work has contributed to the understanding of pain in children with developmental disabilities (e.g., cerebral palsy, pediatric neuromuscular diseases), the developmental outcomes of children with prenatal exposures, and sitting balance in infants who are typically developing or at high-risk for ongoing neuro-motor impairment. She has published in these areas. She has also mentored numerous post-professional masters and PhD students who have gone on to disseminate research, two of whom (as well as Dr. Kartin) have been honored by the Hughes Award from the APTA Section on Pediatrics. Most recently she is a research collaborator at the UW in the area of sensory contributions to balance and is part of a developing multi-site collaboration in the planning stages funded by the APTA Section on Pediatrics.

Dr. Kartin has made significant contributions to the academic and training programs in the Department of Rehabilitation Medicine in the areas of curriculum design and implementation. She currently is the Director of the PhD Program in Rehabilitation Science, the Director of the UW's Advanced Rehabilitation Research Training Program (funded by NIDRR), and Associate Director of T-32 Rehabilitation Sciences Training Program (T-32, funded by NIH). In the past she was the Director of the Center for Leadership in Pediatric Physical Therapy Education (funded by HRSA, MCHB) that developed a collaborative PhD program. Dr. Kartin conceived, initiated, and chairs the Diversity Recruitment and Retention Council for the academic and fellowship programs in the Department of Rehabilitation Medicine. Via her involvement in the PhD Program in Rehabilitation Science, an interdisciplinary collaboration in its own right, collaborations have been fostered with the Seattle VA, the Departments of Computer Science

and Engineering, College of Education, Department of Speech and Hearing Science, Disabilities Studies, Law Society and Justice. This has resulted in TA opportunities for our students and requests for our faculty involvement.

Dr. Kartin was part of the committee that developed the curriculum for the BA in Early Childhood and Family studies in the UW College of Education. She serves on the SOM Office of Multicultural Affairs Advisory Board and The Graduate Council for Research and Graduate Education, both interdisciplinary and collaborative groups, and has served on the faculty Senate. She is also on the AHEC/SPARX Advisory Board (Rural and Underserved, interdisciplinary) and the CHDD Early Intervention Advisory Board (interdisciplinary). She is a Member of the APTA Section on Pediatrics Research Committee, Planning Committee for Research Summit II (bringing together an interdisciplinary group around early intervention to stimulate multi-site research collaboration).

Kevin J. McQuade, PT, MPH, PhD

Dr McQuade's efforts within the Division of Physical Therapy have been directed toward facilitating the development of the department's Human Motion Analysis Research lab (HMAL) as well as development of a musculoskeletal research program. As director of the lab, he has negotiated for physical improvements and financial support for the lab, organized the lab's first strategic planning meeting, and fostered motion analysis topical seminars for researchers and graduate students. Dr. McQuade had expanded our Physical Therapy program presence internationally by providing lectures and research consultation to the physical therapy program at the University of Sao Paulo, Ribeirao Preto campus, in Sao Paulo, Brazil. Following this, he supervised two Brazilian PT PhD students training in the HMAL for one year. In addition, he arranged for a visiting faculty from Brazil to participate in our PT program for 9 months of interesting cultural and academic exchange.

Dr. McQuade's research involves the study of factors influencing joint stability, the role of strength training in patients with arthritis, and objective measurement of joint motion and joint stiffness. Dr McQuade serves as a reviewer for several journals, and has been a judge for "young investigator" awards at the International Society of Biomechanics. He continues to be an ad hoc member of the Orthopaedic and Rehabilitation device panel of the Medical Devices Advisory Committee for the Food and Drug Administration. He currently collaborates with researchers at the University of Southern California physical therapy program in an investigation of the biomechanics of yoga exercise, and continues collaboration with researchers at the University of Sao Paulo. He has also developed collaborations with a local running shoe company and organizes student visits to their gait and running shoe research lab. Dr. McQuade has had continuous NIH funding since joining the department in 2004.

Valerie Elizabeth Kelly, PT, PhD

Dr. Kelly's broad research interests are in the neural control of movement, and her primary focus is on movement impairments in people with Parkinson's disease (PD). Current research projects are funded by a Research Scientist Career Development (K-01) Award from the National Institutes of Health and examine the interaction between cognition and movement during the dual task performance of walking and a cognitive task. She is actively presenting and publishing this work to physical therapy, rehabilitation, geriatric, neurology and neuroscience audiences. Her work embodies the mission of the division by contributing to research and the dissemination of knowledge in the physical therapy profession and related healthcare and neuroscience communities. In addition, she works with students in our DPT program to provide ongoing

research electives that allow them to actively participate in all aspects of her research. These students have presented research with her at local, state, and national conferences and have participated in the publication of peer-reviewed manuscripts. Dr. Kelly's research interests are also closely linked to her teaching and clinical interests. In the DPT program, her teaching responsibilities are centered on neurologic rehabilitation. Her clinical work is in outpatient rehabilitation at the University of Washington Medical Center, and this work contributes to the service provision aspect of our unit's mission.

Since 2003 Dr. Kelly has collaborated with colleagues in the UW Departments of Neurology (Ali Samii, MD), Neurological Surgery (Robert Goodkin, MD; Adam Hebb, MD) and Rehabilitation Medicine (Jefferson Slimp, PhD; Robert Price, MSME) to examine the effects of deep brain stimulation of the subthalamic nucleus on walking in people with Parkinson's disease. Positive effects = contribution to the research literature via 3 peer-reviewed published manuscripts. This original research indicates that the effects of stimulation are variable and it demonstrates the need for sensitive measures of walking. As a result, we conduct balance and gait assessments as part of the clinical examination for all individuals being considered for this type of neurological surgery.

Other collaborations include: 1) From 2005-2008 (with potential to continue) with the National Institute on Ageing Baltimore Longitudinal Study on Aging (Luigi Ferrucci, MD, PhD; Matt Schrager, PhD). Positive effects = publication of 2 peer-reviewed manuscripts on the age-associated effects on gait speed and stability under a variety of walking conditions; 2) From 2007 (ongoing) collaboration with UWMC (Stacia Lee, PT) to develop a Neurologic Physical Therapy Residency program. Positive effects = the ability to provide advanced training to licensed physical therapists in the area of neurologic rehabilitation; 3) From 2008 (ongoing) collaboration with the UW School of Nursing (Ellen McGough, PT, PhD; Linda Teri, PhD) to examine the physical, cognitive, and functional deficits in people with mild cognitive impairment. Positive effects = 3 manuscripts in preparation, and continuing collaboration in projects that examine impairments in dual task walking in people with mild cognitive impairment.

Sarah Westcott McCoy, PT, PhD

Dr. McCoy's research falls into two general categories, macro studies examining overall effectiveness of pediatric physical therapy service and micro studies involving postural control and motor learning in children with cerebral palsy (CP) and developmental coordination disorder (DCD). Research in both of these areas embodies all aspects of the mission of the Division of Physical Therapy as the findings are embedded in presentations for the UW classroom, continuing education courses, and publications available to all professionals. From a leadership development perspective, students (DPT, MOT, PhD in Rehabilitation Science) are involved in all of the projects.

Overall effectiveness of pediatric physical therapy service: Dr. McCoy has participated in a major multi-national, multi-site, observational study of young children with cerebral palsy over the last three years, titled Movement and Participation in Life Activities for Young Children with Cerebral Palsy (*Move & PLAY*). The purpose of the study was to understand the determinants of change in gross motor, self-care, and play ability outcomes across children at all levels of severity of CP. Child, family, rehabilitation and community factors were collected from assessments with the child and family. Currently the investigators are analyzing how these factors predict the outcomes using structural equation modeling. Within this study, Dr. McCoy

is taking the lead on the development of an extensive evaluation method of pediatric PT services and how these services predict outcomes, utilizing a clinical practice improvement design methodology. She and a colleague have also submitted a grant that is under review to use this methodology with a school-based pediatric PT population.

Postural control in children with CP and DCD: Dr McCoy is continuing her study in this area, which she started at the beginning of her research career, focusing on the sensory aspects of postural control. She and Dr. Jean Deitz (Rehabilitation Medicine) are finalizing early research on a clinical assessment of sensory interaction for postural control, the *Pediatric Clinical Test of Sensory Interaction for Balance*. Recently (10/2009), Dr. McCoy and Dr. Tracy Jirikowic (Rehabilitation Medicine) were awarded an NIH R-21/R-33 grant to develop a new test of sensory integration for standing balance, the *MultiModal Balance Entrainment Response (MuMBER)* system. Utilizing virtual reality techniques, the research team is also creating a new sensory balance motor learning intervention and the plan is to test effectiveness of the intervention via the *MuMBER* and other clinical balance tests in children with fetal alcohol spectrum disorder who are thought to have developmental coordination disorder. Finally pilot work with Dr. Chet Mortiz (Physiology and Biophysics) on a motor learning intervention utilizing computer technology to improve selective active muscular control in children with CP is also underway. This project is funded by the Pacific Northwest Center for Neural Engineering and the investigators have submitted for NIH funding to continue the work.

Dr. McCoy's NIH support for the sensory components of postural control research and the motor learning of selective active muscular control is supplemented by support from the Pacific Northwest Center for Neural Engineering which was established in 2008 by Dr. Yoky Matsuoka (UW Computer Science and Engineering) to foster collaboration between engineers, basic scientists, and clinical scientists to improve rehabilitation for individuals with neurological disorders. These collaborations not only make such projects feasible but have enhanced the outcomes thus far. UW faculty collaborators from outside the Department of Rehabilitation Medicine include: Brian Dellon, MSE, and Yoky Matsuoka, PhD (Computer Science and Engineering), and Chet Moritz, PhD (Physiology and Biophysics). UW faculty collaborators from within the Department of Rehabilitation Medicine include Jean Deitz, PhD, OTR/L; Tracy Jirikowic, OTR/L, PhD; Deborah Kartin, PT, PhD; Kathleen Washington PT, PhD; and Robert Price, MSE.

Dr. McCoy's *Move & PLAY* study has involved collaborations across Canada and the USA, including: Doreen Bartlett PT, PhD, Western Ontario University; Peter Rosenbaum MD, McMaster University; Lisa Chiarello, PT, PhD and Robert Palisano PT, PhD, Drexel University; Lynn Jeffries PT, PhD, Langston University; and Alyssa Fiss PT, PhD, Georgia State University. While this project is drawing to a close, this team is preparing at least two new grant proposals to continue the research line. Dr. McCoy's follow-up utilizing Clinical Practice Improvement design methodology for descriptive and effectiveness research within school-based programs involves a collaboration with Susan Effgen, PT, PhD and several of her OT colleagues at the University of Kentucky. Finally Dr. McCoy is working with physical therapist researchers from the University of Delaware, Cole Galloway PT, PhD; Virginia Commonwealth University, Stacey Dusing PT, PhD; and the University of Nebraska, Regina Harbourne PT, PCS, and Nicholas Stergiou, PhD developing a grant proposal to fund a multi-site randomized control trial of targeted intervention for sitting and reaching in infants with CP. None of these projects would be feasible without the outside collaboration as they all require a large number of participants in

order for the findings to be generalized and useful for clinicians. As with the collaborations within the UW, the projects flourish given the diverse backgrounds of the research team members.

Murray Maitland, PT, PhD

Dr. Maitland contributes to the division's outstanding record of research, and communication of professional knowledge in the content areas of musculoskeletal biomechanics, physical examination and education theory. His published work has a wide variety of audiences including physical therapists, physicians, engineers and educators. His primary external collaboration is with the University of South Florida in engineering of upper extremity prosthetics. This collaboration has resulted in several recent publications. He also recently published a paper with faculty from Kitasato University School of Allied Health Sciences, Japan (Sato H, Maitland ME. Relationship between forward trunk lean during walking and musculoskeletal functions for females. *J of Mechanics in Medicine and Biology* 2008;8(4):1-13).

Besides his published work and ongoing research agenda, Dr. Maitland has redeveloped three courses in physical therapy orthopedics for the DPT program incorporating innovative learning models and resources. He has developed an extensive electronic video library of physical therapy examination procedures, incorporating these into his excellent course websites. He mentors other faculty in their efforts to expand the technological aspects of their teaching, ie, to join the 21st century.

Cynthia Robinson, PT, MS

Cyndi's research explores the relationship between physical, personal and environmental factors and the ability to walk in the community following stroke. Currently, only 50% of stroke survivors regain the ability to walk independently in the community. Identification of the factors associated with the ability to walk in the community may guide future research aimed at identifying treatment interventions that are most successful in promoting recovery of participation in community walking.

At the UW, as Physical Therapy Director of Clinical Education (DCE), she collaborates with colleagues in Occupational Therapy and Speech and Language Pathology, striving to establish joint agreements in order to maximize the clinical opportunities for our students and also to minimize the contract workload for each department, as well as the University's Assistant Attorney General Office. They also collaborate to identify strategies for use by our clinical faculty to maximize their effectiveness and efficiency in supervising students in the clinical setting.

Cyndi is a member of the Northwest Intermountain Consortium of Clinical Education Programs. In fact she was one of the driving forces behind the creation of the Consortium. The Consortium includes the DCEs from 12 physical therapy programs in an 8-state region as well as clinical faculty from student affiliation sites. The consortium works jointly to develop systems and programs, to support clinical sites by providing updates regarding regulations related to clinical education, and to provide training and continuing education to the professionals who mentor our students.

Cyndi has been a member of a multidisciplinary rehabilitation team that travels to Moldova, serving as a team leader since 2006. The purpose of the team is to provide training to local professionals. Training topics generally include application of a conceptual framework to guide practice (ICF Model), systematic examination, rehabilitation diagnosis, selection of interventions

to address specific problems, application of evidence based practice, and utilization of outcome measures. While previous teams have worked in clinical settings, plans for 2010 include training programs for the Kinetotherapy program at the Sport University in Chisinau, Moldova. In addition to professional team members, she has facilitated PT and OT student participation in this culturally rich experience since 2004. In 2009, she expanded her international work to the Bashkirian State Medical University in Ufa, Russia with a goal to establish a formal agreement between our universities.

Patricia Noritake Matsuda, PT, DPT

Dr. Matsuda is currently preparing her PhD (in Rehabilitation Science) dissertation proposal. To date her research has involved community mobility following stroke, and falls in persons with Multiple Sclerosis (MS). This research has involved community mobility following stroke, exercise and frail community-dwelling older adults and falls in persons with Multiple Sclerosis (MS). For her dissertation she will also be exploring physical activity in persons with MS, part of a larger study in the Department of Rehabilitation Medicine (Co PIs: Mark Jensen, PhD and Charles Bombardier, PhD). She also has a strong commitment to community-based collaborative endeavors such as working with Seattle-King County Aging and Disability Services and their clients (future research project in training phase), service-learning projects related to Washington State Fall Prevention Awareness Day and education of community-dwelling older adults in decreasing their risk for falls. She also represents the department on the UW Gerontology Consortium Steering Committee.

Kimberly Bennett, PT, PhD

Dr. Bennett's interest in pain and in joint function has driven her creative work in the last few years. This has led to local and national professional presentations for the APTA, UW School of Nursing and the Arthritis Foundation and to the general public through the Arthritis Foundation's Sjogren's and Fibromyalgia groups on the role of physical therapy in osteo- and inflammatory arthritis and in chronic pain. Additionally she has authored two book chapters regarding exercise considerations in arthritis and in fibromyalgia in a text on exercise for physical therapists. The third edition is in press now.

Dr. Bennett has recently joined a research project being sponsored by the UW School of Nursing, investigating the effect of yoga on symptom management and prevention of adverse events in a population of adults with arthritis. Her role will be to assess the proposed program for safety and feasibility and to carry out musculoskeletal assessments through the five years of the project.

- **How does the unit work with junior faculty to maximize their success?**

The Department of Rehabilitation Medicine's Promotions and Appointments Committee, chaired by Dr. Kathy Yorkston, is very active in helping guide the careers of all faculty, and we have achieved great success in promotion decisions. In addition to the oversight of Dr. Yorkston's committee several mechanisms are available to mentor junior faculty. First, all junior faculty members meet annually with the department chair to review the progress of his or her academic career. In addition, the junior faculty may meet with the chair of the Internal Promotions and Appointment committee as needed. This meeting may involve a review of departmental criteria for promotion, an analysis of the faculty member's Annual Faculty Activity Report and current CV, and a discussion of progress related to promotion expectations. Finally, each junior faculty member selects a mentor who meets with them informally on a regular basis for advice and

counsel. Mentors are typically selected from within the department or from other departments as appropriate. This mentor is usually not a member of the department's Internal Promotions and Appointments Committee so that mentoring can take place in an atmosphere where evaluation or promotions decisions are not the primary focus.

Within the division much mentoring is done informally – physical therapists tend to be very nurturing to begin with. In addition, each quarter Dr. Guthrie assesses each faculty member's activities, and once a year conducts "Meetings with Mark" with each faculty member to review the past year, preview the upcoming year, and attempt to establish a work plan that meets the needs of the division and that person. That is, each faculty member not only establishes goals for the next 12 months (or so) but also identifies what their ideal faculty scenario would look like. We believe strongly that each of us should love what we are doing.

- **In what ways have advances in the field or discipline, changing paradigms, changing funding patterns, new technologies and trends, or other changes influenced research, scholarship, or creative activity in the unit?**

Several major challenges have confronted the Division of Physical Therapy over the past ten years. We are pleased that we have not only met those challenges, but have grown and prospered as a result. Perhaps the greatest challenge was related to funding. At the end of the 1990's our funding was not adequate to cover all aspects of the Division. In 2004, through the inspired efforts of Dr. Guthrie, Dr. Larry Robinson (then Dept. Chair), Ann Reite (Dept. Administrator), and Provost Dr. David Thorud a new self-sustaining funding model was established for the DPT program. The length of the DPT program coupled with the class size are proving to be just right in terms of meeting the funding needs of the program while at the same time keeping the tuition costs reasonably low. A high demand for positions in the program assures full funding. Zero external funding is always assumed when planning the budget each year, but faculty success in garnering funding allows us additional flexibility.

In the late 1980's physical therapy education began to shift from the undergraduate to the graduate level. The University of Washington was not at the forefront of this movement, despite a history of experimental Master of Physical Therapy (MPT) programs (small cohorts of 3-4 students, funded by training grants). Finally in 1999 our proposal to move to the MPT was granted, partly due to pressure from the Commission on Accreditation in Physical Therapy Education, plus negative input from prospective applicants to the program. Shortly after that we began planning the transition to the Doctor of Physical Therapy. The first students entered, or were transitioned into, that program in Autumn 2003. Initially, the physical therapy faculty were not completely supportive of the move to the DPT, but now the faculty are unanimously pleased that we made that transition. We are also indebted to the Graduate School for their support throughout the process.

Space, primarily teaching space, has been another challenge for us. Until very recently, graduates from 1980 would have noticed little (if any) change in those spaces. Over the last six months our facilities have undergone a major remodel, thanks largely to the efforts of the current department chair, Dr. Peter Esselman, in securing both funds for the remodel and space for some Rehabilitation Medicine personnel at another location, thus freeing up space for PT, OT, and P&O teaching and offices. The upgrades and increased space will allow us to increase our class size from 30 to 45 students over the next two years.

Although physical therapy remains largely a hands-on profession, alternate approaches, including greater use of technology must be continuously considered. Currently we are exploring the option of taking some of our courses online. One course, pathology, is nearly ready for that transition and will be debuted next Autumn Quarter. Other courses, such as pharmacology, present potential online options as well.

The practice of physical therapy has not always been conducted in a sound, evidence-based manner, yet our profession is working hard to change. The American Physical Therapy Association has been instrumental in that effort, supporting research through grants and conferences, and with programs such as “Hooked On Evidence” and “Open Door.” As faculty we have a strong commitment to modeling such behavior and to giving our students the tools and inspiration to embrace evidence-based practice (EBP). We are confident the change to EBP is occurring in clinical practice, and with each graduating class of DPTs our profession gets closer to that goal.

- **What specific strategy has the unit employed to recruit, and support the career success of, faculty members from under-represented groups? To what extent has the unit been successful in diversifying its faculty ranks?**

The DPT Program is committed to increasing the diversity of the faculty and supporting the career success of faculty members from under-represented groups (URG). One of the current PhD students who is from an URG has been teaching part-time in the DPT program while working on her degree. The Division has supported this part-time position and has made accommodations in the scheduling of courses/responsibilities to support her progress through the program. We also have a Postdoctoral fellow from an URG who is a PT in our department. To complement her training program, she has also done some teaching in the DPT program to support her development as a future academician. Last year we were fortunate in having a postdoctoral fellow from Brazil do research and some teaching in the program. This benefited our students, the faculty, and supported her development. We have made a concerted effort to engage clinical instructors in teaching in our program who are not only highly skilled but also from diverse backgrounds. The faculty has continued to encourage former students from URGs to consider advanced degrees and pursuit of careers in physical therapy education.

Section IV: Future Directions

The State of Washington requires all programs and units being reviewed to provide a statement of “continuing need.” Rather than simply addressing this by reiterating previous sections of the self study thus far, address this in a way that is constructive for the unit as it thinks about its future.

- **Where is the unit headed?**
- **What opportunities does the unit wish to pursue and what goals does it wish to reach?**
- **How does the unit intend to seize these opportunities and reach these goals?**
- **Describe the unit’s current benefit and impact regionally, statewide, nationally, and internationally. Given the unit’s envisioned future, describe how reaching this future will augment that benefit and impact.**

Given the acute shortage of physical therapists regionally and nationally, one obvious goal of the Division of Physical Therapy is to successfully train excellent physical therapists. This is arguably the most important thing we do. We take it very seriously and are constantly scrutinizing and adjusting that process. However our mission includes more than education. This is a reflection of our own philosophies and the unique features of the University of Washington Physical Therapy program:

- It is part of the premier health sciences education complex in the Northwest, one of the top such settings in the country. Few programs exist side by side and interact with schools of medicine, dentistry, nursing, pharmacy, speech and hearing, etc.
- It is the only program in the region affiliated with a large and comprehensive rehabilitation medicine department.
- It is the only program in the region (possibly in the country) that is also closely affiliated with occupational therapy and prosthetics & orthotics programs.
- It is located at the top research institution in the region, one of the top in the country.
- It has extensive affiliations with clinical sites, benefitting those institutions through the participation of its students and through the educational opportunities offered to staff: in-services, continuing education, and through its participation in the Clinical Instructor and Education Credentialing Program.

Thus, as stated in our mission, we are also committed to service provision, research, leadership, and the dissemination of knowledge. Particular challenges we are considering, and directions in which we might wish to move include:

1. Increasing the diversity of our student and faculty groups. We have taken part in numerous outreach programs, and continue to do so. These have included events sponsored by the Division, School of Medicine (SOM), and University. Currently we are consulting with Dr. David Acosta, Director of the SOM Office of Multicultural Affairs. Dr. Acosta is helping us better embrace our commitment to diversity in such ways as modifying information about the program including our website, reconsidering how we weight certain applicant characteristics in our student selection process, and inviting us to take a more active part in SOM outreach activities.

Increasing the diversity of the faculty is hampered somewhat by the acute shortage of potential faculty. Open positions at many programs remain unfilled for months, sometimes longer. At the UW we generally have better luck in recruiting, but choosing from a vast array of applicants is rarely an option. Existing fellowship opportunities in the department, and our relatively new PhD in Rehabilitation Science program are providing some help in recruiting. For example, Valerie Kelly completed a postdoctoral fellowship here, under the mentorship of Anne Shumway-Cook. When a regular faculty position opened up, Dr. Kelly was able to apply, and was eventually hired. Currently, several of our PhD students and one post-doctoral fellow are members of under-represented groups (in the physical therapy profession) and will probably apply for faculty positions when they arise. Whether they are hired here or not, we are pleased to have trained them so that they may fill faculty positions somewhere! We hope to expand our PhD and fellowship opportunities in the future.

2. Experimenting with, or establishing different faculty models and mixes in the Division of Physical Therapy. Physical therapy education is relatively labor intensive, and requires a very broad range of expertise and roles in those who conduct it – from lecturers with cutting-edge knowledge based on their own research, to lab instructors and assistants with clinical experience from which to draw when demonstrating and teaching precise, hands-on techniques for patient evaluation and treatment. Over the past several years, the division has achieved a core of PhD trained individuals with productive research agendas and the ability to mentor and collaborate among themselves, and with colleagues in the Department, the School of Medicine, etc. We are now in a position, particularly when those people successfully garner external funding, to add other positions to the mix of faculty – instructors, lab assistants, TAs, etc. Given this position, we are working on guidelines for appropriate mixes of faculty and faculty appointments, including reasonable and appropriate workloads for each. We welcome any input on this.
3. Helping to alleviate the shortage of physical therapists. As a result of our recent remodel we will be able to increase our class size from 30 to 45. This will represent a 50% increase for us, but it is a mere drop in the bucket compared to the actual need for PTs (see Appendix D #1). It is unlikely that additional space will be available at the UW main campus, so two possible options seem most likely for us: some type of late afternoon or evening program, and/or development of branch campus programs.

The UW Medical School WWAMI program is one possible model. In this program, students complete their first year of medical school at a distant site (Spokane or Boise, for example). Another model is the UW MEDEX physician assistant program. The entire MEDEX program is taught at three separate campuses (Seattle, Spokane, and Yakima) and utilizes online services where possible.

In another model under consideration, the AM/PM model, lecture type classes in which all the students could meet in one room would be held during the middle of the day. Classes that require smaller groups of students, like most lab courses, would be held in the morning and late afternoon. So half of a cohort of students would have their classes in morning and mid-day, and the other half would have their courses in mid-day and evening. This model would require additional lab instructors, but could potentially work without increasing the number of lecturers.

4. A greater commitment to training (increasing the supply of) future faculty and advanced clinicians. In addition to a small number of pre and postdoctoral fellowship opportunities that are typically available in the Department of Rehabilitation Medicine, in 2006 the first cohort of six students began the PhD in Rehabilitation Science program. We are very proud of that program and the Division of Physical Therapy has a strong presence in it: Dr. Kartin is the director and two of our current faculty are enrolled (soon to finish)! Two other PhD students have served as our very first TA's, also a milestone for us.

As noted previously, we anticipate being able to recruit graduates of the PhD program for positions in the division, but we are also pleased that they will be available to fill positions at other programs. We believe the presence of the PhD students is already influencing the DPT students. One of our 2009 DPT graduates has enrolled in a clinical residency at Rancho Los Amigos, and another has begun a PhD program in Biokinesiology at the University of Southern California. We engage the DPT students in research when opportunities present

themselves, and are interested in other ways we might influence DPT students to consider careers in academia.

5. Establish some type of financial aid system or opportunity for students. Being enrolled in a self-sustaining program means our students are not eligible for some types of financial aid. For example, tuition waivers are available to exceptional UW students with proven financial need, and some of our students are initially informed they qualify for such waivers, only to find out they are not eligible after all.

One option for student aid is via donations, to set up scholarship funds. We do have some funds of this nature, and offer three \$5,000 scholarships each year (one to a member of each class). We continue to solicit support for these funds.

Another option would be to set aside a certain amount from the DPT (self-sustaining) budget to support student financial aid. Since the source of those funds would be tuition paid by all the students, the pros and cons of such aid are debatable. We intend to consult with the UW Office of Financial Aid about this issue, as well as representatives of other self-sustaining programs and private schools.

6. More online courses Besides Pathology, other courses are likely candidates for converting to an online model – pharmacology, physiology, even the lecture portion of anatomy. This, plus distance education techniques would likely be a key to successfully increasing our student numbers via one of the models described above in #3.

PART B

UNIT-DEFINED QUESTIONS:

1. **How are faculty members working as a team to provide a well-integrated, cohesive, physical therapy curriculum?**

In order to provide cohesiveness within the DPT Program the DPT faculty routinely meets to discuss ongoing strengths and weaknesses of the curriculum. Discussions occur as needed at the weekly faculty meetings and specifically include, at the end or beginning of a quarter, a “Review of the last quarter/Preview of the next quarter” for the first and second year current DPT program. This “Review/Preview” discussion is designed to keep all faculty up-to-date on the progress of each DPT class and any particular teaching issues that went very well or not so well. In addition to these discussions, the faculty holds a “Cohesiveness Retreat” 2-3 times per year. At this lengthy meeting, the discussion covers broader cohesiveness issues described in more detail below. Finally the faculty routinely surveys the three DPT classes (1st, 2nd, and 3rd years) as well as recent graduates in order to get feedback about course work and cohesiveness of the curriculum.

The three most recent Cohesiveness Retreats (12/15/08, 2/2/09, 5/29/09) are briefly summarized and the outcomes noted below. The first meeting started with a review of the student feedback from surveys done of the class that graduated in 2008 and the class to graduate in 2009. Overall the students were adequately to very well satisfied that they had received or were receiving an appropriate program of study.

Students from the graduating class of 2008 indentified the following areas as ones they perceived as needing improvement: 1) Facilities and space; 2) Procedures track; and 3) Information for treatment of persons with integumentary problems. Students from the 2009 graduating class

noted following areas they were either minimally or not satisfied with 1) Ability to complete a clinical internship within the acute setting; 2) Cohesiveness in how documentation was presented; 3) Facilities and space; 4) Information for treatment of persons with integumentary problems.

The Procedures courses were rated as very well presented due to changes in the organization made for the 2008/2009 academic year. From written comments from both classes, the following were noted: 1) There is the potential to enhance the connection between cultural diversity and practice in these courses; 2) The students are interested in having more practical content added to the therapeutic exercise course to complement existing practical content and theory; 3) The students are interested in having more time devoted to cardiopulmonary and integumentary topics; 4) The students are interested in having the Pathology course oriented toward physical therapy; 5) The students are interested in having a greater emphasis placed on intervention in these courses; 6) The facilities, chairs, space needs to be improved and 7) The students also indicated their desire for more clinical experiences during the didactic portion of the program. Many topics were discussed after the student review summary including an overview of all the courses; potential ways to organize (timing of courses) and/or teach (online options) courses in the curriculum; considerations regarding application reviews in order to invite students to the program who would be critical thinkers; and the potential for adding a comprehensive exam prior to clinical internships. It was concluded that this type of “retreat” was useful and would assist us to move forward with improving our DPT curriculum.

Discussion in the second meeting was focused on how to capture in detail what was being taught specifically for all required courses. The curriculum had been divided into nine tracks, so a faculty member was assigned to each track and charged with determining in detail what was covered. Secondly, we outlined six areas where we wanted to ultimately make sure that information across the curriculum was consistent and cohesive. Those included: 1) Documentation methods; 2) Problem-solving training; 3) Examination framework; 4) Evidence-based practice application; 5) Clinical “appendages” to classes; 6) Terminology (Guide to PT practice; ICF, etc.). In the third meeting we discussed in detail the documentation topic, which culminated in a patient management worksheet and a consistent method for writing an initial evaluation, progress notes, and goals that all faculty agreed to adopt and use in their courses. The next meeting will focus on Problem-solving and Evidence-based practice applications across the curriculum.

In summary to date, specific outcomes from our meetings are the following: 1) Organization of an online Pathology course specifically tailored for the DPT students; 2) Revision of the Therapeutic Exercise course into an expanded exercise practice component and theory component; 3) Adoption of a patient management worksheet and consistent documentation requirements to be used throughout all curriculum courses; 4) Commitment to continue to meet to improve the cohesiveness of the curriculum.

- ***How are faculty (from other Divisions in the Department of Rehabilitation Medicine and other departments being used to provide teaching in the DPT curriculum?***

Other divisions within Rehabilitation Medicine whose faculty provide teaching in the program include Occupational Therapy, Prosthetics & Orthotics, Rehabilitation Psychology, and Electrodiagnostic Medicine. Other departments within the UW that contribute to the teaching

effort include Biological Structure, Medex, Neurology, Pediatrics, and Orthopedics. Also see Overview of Teaching Collaboration table in Appendix F.

- ***To what extent does the DPT program use an interdisciplinary approach?***

As the field of rehabilitation is a highly collaborative one, the importance of an interdisciplinary approach is a theme that is stressed throughout the curriculum. The interdisciplinary approach is frequently discussed by faculty and applied to many curriculum activities. In the first year DPT professional seminar course, the topic is introduced and discussed. Also many of the first year science and procedures courses include not only PT students, but also OT and/or P & O students. During the 2nd year, although there is only one course with such a mix of students, a few courses involve interactions between students from the different programs in the department.

For example in the second year during the pediatrics courses (REHAB 502), we have 2-4 class sessions each quarter where teams of both PT and OT students participate in activities where they learn and practice their roles within a rehabilitation team. An example of this is determining and ordering adaptive technology for children. Teams of OT/PT students visit a center off campus (Provail) and observe adaptive equipment that vendors demonstrate and then observe people using the equipment. Each team draws on this experience and what they've learned from readings and online reviews of adaptive technology to create a requisition letter requesting equipment for a child with neurological disability. In this letter, for instance, the OT may be ordering equipment for bathing and the PT equipment for adaptive seating.

One option for creating additional collaborative experiences would be a pro-bono, interdisciplinary, student-run clinic, supervised by PT and other department faculty and clinical instructors. As this clinic would serve those without insurance or the means to pay, it would thus not compete with UWMC or other clinics. Not only would such a clinic allow students of the several rehabilitation specialties a chance to work collaboratively, it would also give them experience treating underserved populations. Several faculty have expressed an interest in exploring this option.

- ***What are opportunities for interdisciplinary interaction and ways to avoid duplication of courses across Divisions?***

The Medical Sciences, Physiology, Kinesiology lecture and lab, and both Musculoskeletal Anatomy courses are taught to all PT/OT/P&O students together. The current Pathology course is taught to PT, Physician's Assistant, and Clinical Nurse Practitioner students. We teach P&O students with the PT students in the two basic Procedures courses. We could do a better job of creating patient problems that apply to both disciplines for students to solve, as per the pediatrics course model. The DPT geriatrics course could also be integrated with several classes in a similar manner to the pediatrics course. Some issues that are covered are specific to PTs, but there is an opportunity to integrate with foundational material.

Other topic areas that could be taught across all students groups, given planning time to create the course and find the shared time to present it include professional communication, research, and measurement.

- ***From a broad perspective, consider if the program has the right mix of faculty (expertise, research, etc.) to meet the educational needs of the students.***

One of the most exciting and gratifying changes in the Division of Physical Therapy over the past several years has been the evolution of the faculty. As noted in Section 4, we now have a core of PhD-trained individuals, in regular faculty appointments, who are flourishing within the rigorous environment of the University of Washington. In addition, while we have always had faculty in other types of appointments (instructors, lecturers, teaching associates), such appointments were generally necessitated by the level of training and academic degree of those individuals. We are now purposely adding faculty at those levels in order to match their personal goals with the nature of their assignments. At some point we hope to have learned enough about this process to have a more systematic plan or model for identifying the right mix of each level of faculty.

Because of our recent remodel we have gained more teaching space and technological capability. Thus we will be increasing the size of our student cohorts, from 30 to 45. This will require us to expand the size of the faculty, which we are looking forward to. Besides finding qualified applicants for new positions, a big challenge will be finding the right balance of expertise and levels of appointments. We have identified an area that is somewhat lacking on our faculty and so will be searching for someone with exercise physiology and cardiopulmonary expertise. Ideally this will be someone with an existing research agenda that we can place in a regular research/teaching position at the assistant or associate professor level. In addition, we will have a greater need for lab instructors so will be seeking faculty to hire at the instructor or teaching associate levels. We have several ideas about how to structure these positions and are excited about this opportunity.

2. How is evidence-based practice integrated in the DPT curriculum?

The *Transcurricular Objectives* of the DPT Curriculum provide a philosophical framework for the UW DPT curriculum, relevant to all aspects of the curriculum, and are reflected in the learning experiences. *Objective 5, Critical Inquiry and Decision-making: Evidence-based Practice* states: “Throughout all aspects of the curriculum, the students will demonstrate clinical decision-making skills, including clinical reasoning, clinical judgment, and reflective practice in the application of course content clinical practice. Further, “Throughout the curriculum the student will demonstrate the ability to critique assigned readings and other published literature.”

In order to examine how evidence-based practice (EBP) is integrated into the DPT curriculum, an on-line survey was conducted to query faculty about the strategies they use to incorporate EBP into their teaching preparation; the ways in which they explicitly and implicitly integrate EBP into their teaching; specific examples of student assignments and classroom activities that incorporate EBP; and methods used to evaluate student competence in EBP concepts.

Faculty routinely access the current literature to update content knowledge related to their areas of teaching and research. This includes conducting literature searches through on-line databases; and accessing, reading, and critiquing current literature in preparation for teaching and research. In addition to informing their classroom lectures, activities and labs, they provide students with the pertinent current references. Faculty also attend national and international conferences and workshops where they flag relevant information to keep in planning folders for reference in future teaching. Faculty also evaluate new texts considered for course adoption relative to how

the texts have incorporated EBP. When guest speakers are invited to present to the DPT students, faculty members request that the speakers review the most current literature, make apparent to students when current research literature or experience guides practice, and provide the students updated references.

EBP is addressed both implicitly (e.g., faculty modeling such as discussing and citing what type of evidence exists in support of practice; evidence-based case scenarios used in classes) and explicitly through direct instruction in course work and student assignments. For example, in REHAB 517, Physical Therapy Seminar Series I-IV, EBP is introduced as a framework for practice as a clinical scientist. This includes introduction to EBP; discussion and application of levels of evidence; Sackett's framework for asking relevant clinical questions; database searching sessions in the library computer lab with the department's library liaison; strategies for critiquing and interpreting the evidence; strategies for evaluating non-traditional interventions; and strategies for making clinical decisions in the absence of research evidence. Student assignments and related activities in REHAB 517 include writing an evidenced-based answer to a clinical question, developing evidence-based patient and family education materials, and facilitating and participating in journal clubs. In addition, measurement concepts are introduced in this series, and students compare and contrast the psychometric properties and clinical utility of common measurement instruments in physical therapy.

These EBP concepts are further developed in the more clinically-oriented courses, through continued discussion (including acknowledgement of assumptions and challenge of the biologic plausibility); the use of paper and clinical cases which require the interpretation of measurements, diagnoses, and development of physical therapy plans of care (evidence-based case reports); and continued experience in reading and critiquing research reports and other sources of information (e.g., Web) including appropriate citation format.

In many courses students are required to state what evidence exists for using assessments and interventions and submit reference lists for their oral and written presentations. In some classes students are offered extra credit for accessing the literature and reporting to the class an answer to a question raised in class that the faculty member was unable to answer. Some faculty members make use of on-line tools (GoPost, e-mail) after a class session to post thought-challenging questions or alternative explanations about the lecture content and issues raised in class.

The DPT Capstone Case Report Project and related course Rehab 591: Preparing Evidence-based Case Reports further emphasize the integration of EBP as students critique published case reports, prepare a mini-evidence-based case report, incorporating many of the required EBP requirements in their capstone project, an evidence-based cares report.

The evaluation of student development in EBP comes in many forms, as alluded to in the sampling of assignments presented. In addition, the evaluation of students' mastery of EBP concepts occurs in many ways including: the grading of on-line homework assignments and exams; students' responses to probing questioning and constructive feedback on their papers; presentation of the literature, and literature critiques; and the grading of case reports and scenarios (using a variety of qualitative methods and grading rubrics).

3. How are clinical experiences integrated within the DPT program?

- *Does the DPT program have the variety, depth, and breadth of clinical experiences necessary to prepare physical therapists who are generalists and in consideration of where our graduates ultimately practice?*
- *Are there adequate relationships for integrating clinical expertise into the curriculum? For example, within University of Washington Medical Center, are clinicians teaching our students and are students going into those clinics*

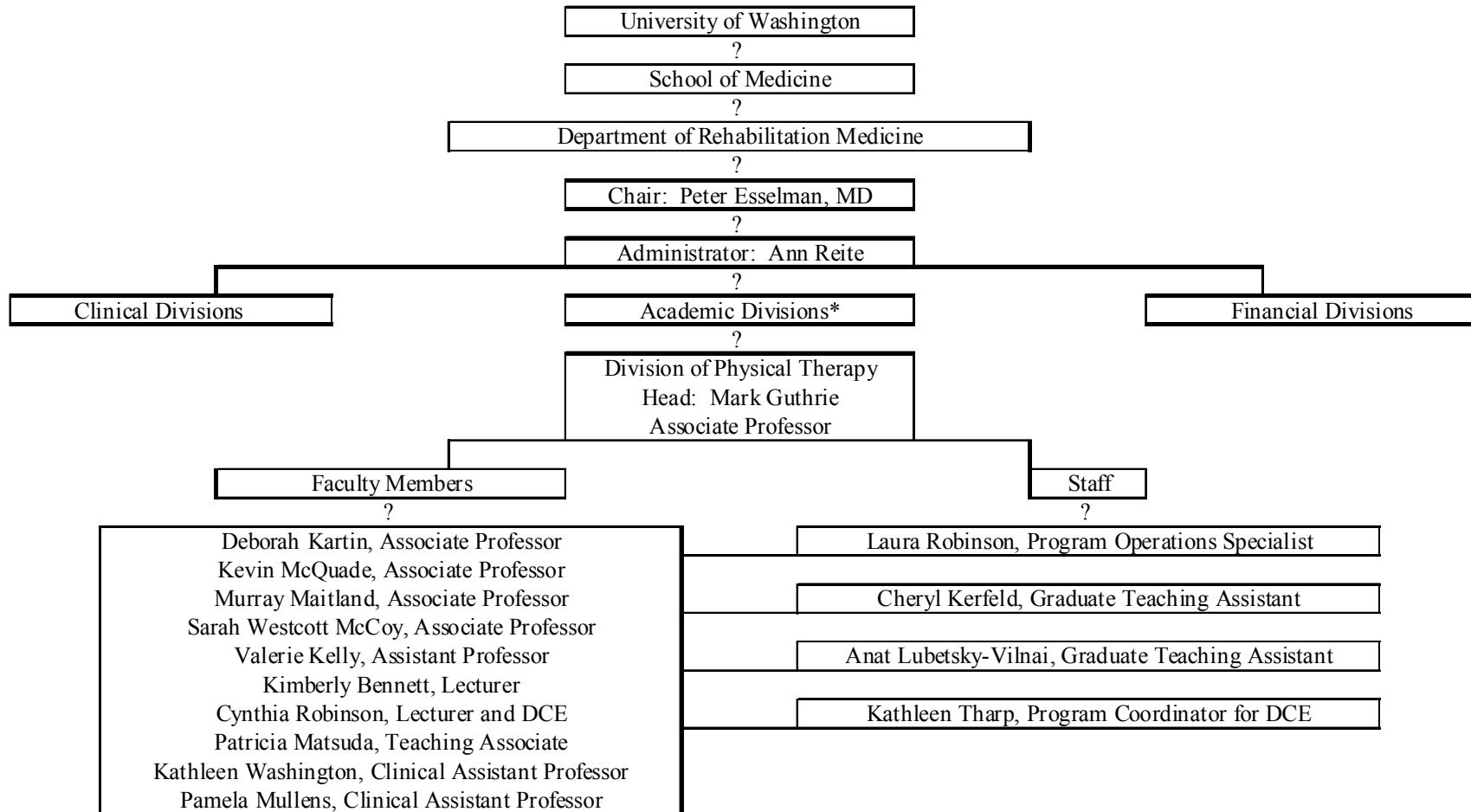
Students engage in patient experiences in a variety of settings throughout the curriculum. The curriculum provides a variety, depth, and breadth of clinical experiences that prepare students as generalist physical therapists who are well-prepared for employment in their chosen area of practice.

Students complete full-time internships for four weeks during the first year of the curriculum and for 32 weeks during the third year. During the internship experiences, each student participates in a variety of clinical settings including out patient musculoskeletal, hospital-based acute care, and a multidisciplinary rehabilitation setting. Each student attends clinics in both urban and non-urban/rural settings. Currently we have contracts with over 450 sites across the country, though most are in the northwest. Many of those sites have more than one clinic location so the opportunities for our students are vast.

In addition to full-time internships, many courses integrate patient/client experiences, some bringing patients/clients into the classroom, and others assigning students to local clinics. This aspect of the curriculum demands good working relationships with local health care facilities and professionals. Currently, classroom-based clinical experiences include working with patients of various ages in the Patient Simulation Lab (3 hours), two 1-hour examinations with standardized patients (2 hours), eight academic/clinical faculty-mentored patient experiences in the classroom (total 13 hours) and six clinical experiences mentored by professionals at local health care facilities (total 14 hours). Also, in the context of the geriatrics course, students perform six visits (9 hours) of community-based care to frail elderly adults.

Finally, in addition to required course work, students have the opportunity to participate in elective patient/client service learning opportunities. Opportunities include: (1) fall risk screening (2-5 hours), (2) pediatric developmental screening (4-6 hours), (3) bicycle fitting (2-4 hours), (4) medical support to Avon 3-Day participants (3 days), and (5) a study abroad clinical internship in Eastern Europe (2 weeks).

Appendix A
 ORGANIZATION CHART
 University of Washington
 Doctor of Physical Therapy (DPT) Degree Program



* Other academic divisions not listed: PhD in Rehabilitation Science, Occupational Therapy, Prosthetics/Orthotics, Rehabilitation Counseling, Neuropsychology, Speech Pathology, Electrodiagnostic Medicine, Residency Training, PMR Medical Student Education, Research Development

Appendix B: Budget Summary

DPT Budget Summary, 2004-2010

	04/05	05/06	06/07	07/08	08/09	09/10*
REVENUES	984,820	1,199,316	1,222,375	1,466,906	1,496,580	1,622,493
EXPENSES						
Salaries & Benefits	640,680	712,655	862,216	933,839	912,029	1,072,574
Services (copying, rentals, dues, licenses, etc)	25,413	27,358	30,994	21,051	31,352	54,062
Equipment	17,739	12,908	8,402	6,754	12,388	16,144
Travel	7,315	21,610	5,132	1,505	7,471	26,250
Other (dept overhead, CAPTE, etc.)	30,200	23,538	25,507	22,825	33,537	28,150
UW Overhead	190,800	231,031	215,795	242,548	264,529	269,439
EXPENSES TOTAL	912,147	1,029,280	1,148,046	1,228,522	1,261,306	1,466,619*

* *Projected*

APPENDIX C

Division of Physical Therapy Core Faculty

Kimberly Bennett PT, PhD

Current faculty position/s:

Lecturer, Dept. of Rehabilitation Medicine, University of Washington

Clinical Positions:

PT consultant, Olympic Physical Therapy, Mercer Island, WA

Education:

1965-1969 BS Zoology, Univ. of Washington
1969-1974 PhD, Anatomy, Univ. of California, Los Angeles
1979-1980 BS in Physical Therapy, Northwestern Univ.

Teaching responsibilities:

Coord/primary instructor	REHAB 566, Advanced Special Topics in Rehabilitation
Co-coord/instructor	REHAB 506, PT Procedures II - Spine
Coord/primary instructor	REHAB 507, PT Procedures III - Modalities
Coord/primary instructor	REHAB 511, Musculoskeletal IV: Clinical Management
Lecturer	REHAB 512, Musculoskeletal V: Clinical Management
Lecturer	REHAB 445, Clinical Anatomy II
Primary instructor:	REHAB 600, Independent Study, research elective
Faculty advisor	REHAB 591, Graduate Project

Areas of research/special interests/expertise:

Pain and joint function. therapeutic exercise in arthritis, and chronic pain

Mark R. Guthrie, PT, PhD

Current faculty position/s:

Associate Professor, Dept. of Rehabilitation Medicine, Univ. of Washington
Head, Division of Physical Therapy

Education:

1976	BS	Biology	Washington State Univ.
1980	MPT	Physical Therapy	Univ. of Washington
1990	PhD	Education (Measurement)	Univ. of Washington

Current teaching responsibilities:

Coord:	REHAB 416	PT Administration
Coord/Primary Instructor:	REHAB 442	Applied Kinesiology
Coord/Primary Instructor:	REHAB 444	Musculoskeletal Anatomy I
Coord/Primary Instructor:	REHAB 451	Functional Anatomy Lab
Coord/Primary Instructor:	REHAB 445	Musculoskeletal Anatomy II
Coord/Primary Instructor:	REHAB 451	Functional Anatomy Lab
Coord:	REHAB 505	Intro to Pharmacology
Coord:	REHAB 529	Professional Practice Issues
Co-coord:	REHAB 566	Special Topics in Rehabilitation
Primary instructor:	REHAB 600,	Independent Study, research elective
Faculty advisor	REHAB 591,	Graduate Project

Areas of research/special interest/expertise:

Musculoskeletal anatomy & kinesiology, program evaluation

Deborah Kartin, PT, PhD

Current faculty position/s:

Associate Professor, Dept. of Rehabilitation Medicine, Univ. of Washington
Director, PhD Program in Rehabilitation Science, Dept. of Rehabilitation Medicine
Graduate Program Coordinator, Dept. of Rehabilitation Medicine
Director: University of Washington's Advanced Rehabilitation Research Training (NIDRR)
Associate Director: Research Training in Medical Rehabilitation (NIH/NCMRR T32)

Education:

1969-73 BS Physical Therapy, Summa Cum Laude, Boston Univ., Boston
1971-73 Rehabilitation Services Administration Trainee
1983-88 MS Rehabilitation Medicine, Univ. of Washington,
1992-96 Ph.D Education (Educational Psychology), Univ. of Washington

Current teaching responsibilities:

Coord/Primary Instr: REHAB 517 I & II. Physical Therapy Seminar I (Professional Development)
Coord/Primary Instr: REHAB 517 III Physical Therapy Seminar III (Measurement)
Coord/Primary Instr: REHAB 517 IV Physical Therapy Seminar IV (Consumer of Research)
Primary Instructor: REHAB 520: Doctoral Seminar
Co-Instructor: REHAB 566: Foundations of Rehabilitation Science
Co-Instructor: REHAB 557: Evidence-based Rehabilitation
Primary instructor: REHAB 600 Independent Study, research elective
Faculty advisor REHAB 591 Graduate Project

Areas of research/special interest/expertise:

Effects of prenatal exposure of alcohol and other drugs, development of postural control and balance, pain in children with developmental disabilities

Valerie Elizabeth Kelly PT, PhD

Current Faculty Position/s:

Assistant Professor, Dept. of Rehabilitation Medicine, Univ. of Washington

Clinical Position/s:

Physical Therapist, Outpatient Rehabilitation, UWMC, Seattle, WA

Education:

1992-1996 BA in Physical Anthropology, Magna cum Laude, Univ. of Pennsylvania
1996-1999 MS in Physical Therapy, Washington Univ. in St. Louis
1998-2003 PhD in Movement Science, Washington Univ. in St. Louis
2003-2006 Post-doctoral fellowship in Rehabilitation Medicine, Univ. of Washington

Current teaching Responsibilities:

Co-coord: REHAB 566, Special Topics in Rehabilitation
Coord/primary instructor: REHAB 527, Advanced Topics in Neurologic Rehabilitation
Primary instructor: REHAB 600, Independent Study, research elective
Lecturer REHAB 523, Applied Neurology
Lecturer CONJ 480, Neuroscience for Rehabilitation Professionals
Lecturer REHAB 442, Kinesiology
Faculty advisor REHAB 591, Graduate Project

Areas of research/special interest/expertise:

Neural control of movement, movement impairments in Parkinson's disease (PD), gait & posture, deep brain stimulation for PD, cognition & walking – effects of aging in neurological pathology, PT management of individuals with PD

Murray E. Maitland, PT, PhD

Current faculty position/s:

Associate Professor, Dept. of Rehabilitation Medicine, Univ. of Washington

Education:

1981 Kinesiology and Biochemistry Simon Fraser Univ.
1984 BSR (PT and OT) Univ. of British Columbia
1989 MSc (Anatomy) Univ. of British Columbia
1996 PhD (Medical Sciences) Univ. of Calgary

Current teaching responsibilities

Coord/primary instructor REHAB 504, PT Procedures I: Limbs
Coord/primary instructor REHAB 512, Musculoskeletal V: Clinical Management,
Co-coord/primary instructor REHAB 514, System Review for Physical Therapists.
Supervisor PhD student, Rehabilitation Sciences
Primary instructor: REHAB 600, Independent Study, research elective
Faculty advisor REHAB 591, Graduate Project

Areas of research/special interest/expertise:

musculoskeletal biomechanics, upper extremity prosthetics, physical examination and education theory, educational design

Patricia Noritake Matsuda, PT, DPT

Current faculty position/s:

Teaching Associate, Dept. of Rehabilitation Medicine, Div. Of Physical Therapy

Current Clinical Positions:

Staff PT, on-call, Outpt Musculoskeletal/Spine Clinic, Virginia Mason Med Cntr

Education:

1978–1982 BS, Physical Therapy, Univ. of Washington
2004–2006 Transitional DPT, AZ School of Health Sciences, at Still Univ.
2006–present PhD Candidate, Rehabilitation Science, Univ. of Washington

Current teaching responsibilities:

Co-coord/primary instructor REHAB 537, Functional Mobility Skills
Coord/primary instructor REHAB 503, Lifespan III: Geriatrics
Coord/primary instructor REHAB 523, Applied Neurology
Assists DCE REHAB 500, Clinical Clerkship
Assists DCE REHAB 595 I, II, III, Clinical Internship
Primary instructor: REHAB 600, Independent Study, research elective
Faculty advisor REHAB 591, Graduate Project

Areas of Research/Interest/Expertise:

Falls prevention; gerontology; neurorehabilitation, community mobility following stroke; exercise and frail community-dwelling older adults; falls and physical activity in persons with MS

Sarah Westcott McCoy, PT, PhD

Current Faculty Position/s:

Associate Professor, Department of Rehabilitation Medicine, University of Washington, Graduate Faculty, University of Washington

Clinical Position/s:

Physical Therapist, Experimental Education Unit, Univ. of Washington

Education:

1972 - 1973 University of Maryland
1973 - 1976 BS in Health & Physical Education, Univ. of Montana
1976 - 1979 MPT in Physical Therapy, Univ. of Washington
1989 - 1993 PhD, Behavioral Neuroscience Program, Univ. of Washington

Current Teaching Responsibilities:

Coord/primary instructor: REHAB 502, Lifespan II: Pediatrics A
Coord/primary instructor: REHAB 502, Lifespan II: Pediatrics B
Primary instructor: REHAB 600, Independent Study, Research elective
Faculty advisor REHAB 591, Graduate Project

Areas of research/special interest/expertise:

Effectiveness of pediatric physical therapy service in early intervention and school-based practice, postural control and motor learning in children with CP and developmental coordination disorder

Kevin J. McQuade, PT ,MPH, PhD

Current Faculty Position/s:

Associate Professor, Dept. of Rehabilitation Medicine, University of Washington

Education:

1977-80 BS, Physical Therapy, California State Univ, Long Beach
1981-83 Post-graduate study in Kinesiology/Exercise Physiology, Univ. of Washington
1984-86 MPH, Health Services Research & Epidemiology track, Univ. of Washington
1991-95 PhD, Musculoskeletal Biomechanics, Univ. of Iowa
1998-2000 Post-Doc Fellowship-Rehabilitation Research Biomechanics. Univ. of Maryland

Current Teaching Responsibilities:

Co-coord/primary instructor REHAB 508, Principles of Therapeutic Exercise
Coord/primary instructor REHAB 513, Musculoskeletal VI: Special Topics
Primary instructor: REHAB 600, Independent Study, research elective
Faculty advisor REHAB 591, Graduate Project

Areas of Research/Special Interest/Expertise:

Human Movement & Biomechanics, including the Effects of Manual Therapy

Cynthia A. Robinson, PT, MS

Current faculty position/s:

Lecturer, Dept. of Rehabilitation Medicine, University of Washington
Director of Clinical Education for Physical Therapy

Education:

9/82-5/86 BS, Physical Therapy, Ithaca College
9/87-5/90 MS, Adult Neurologic Rehabilitation, Long Island Univ.
9/06-present PhD candidate, Rehabilitation Science, Univ. of Washington

Current teaching Responsibilities:

Coord/primary instructor	REHAB 448, Applied Kinesiology Lab
Coord/DCE	REHAB 500, Clinical Clerkship
Coord/DCE	REHAB 595 Clinical Internship I
Coord/DCE	REHAB 595 Clinical Internship II
Coord/DCE	REHAB 595 Clinical Internship III
Coord/primary instructor	REHAB 509 Functional Skills
Coord/primary instructor	REHAB 536 Pt. Examination and Clinical Decision Making
Coord/primary instructor	REHAB 538 Integumentary, Edema Mgmt/Circulatory Screening
Coord/primary instructor	REHAB 540 Acute Care Issues in Physical Therapy
Coord/primary instructor	REHAB 528 International Clinical Clerkship
Lecturer	REHAB 529 Professional and Practice Issues in Physical Therapy
Lecturer	REHAB 566 Special Topics in Rehabilitation
Primary instructor:	REHAB 600, Independent Study, research elective
Faculty advisor	REHAB 591, Graduate Project

Areas of Research/Special Interest/Expertise:

Role of physical, environmental and personal factors for recovery of community walking following stroke, relationships between subjective and objective measures of participation, rehabilitation development in low-income international settings, rehabilitation practice in Eastern Europe.

Kathleen Washington, PT, PhD

Current faculty position/s:

Clinical Associate Professor, Dept. of Rehabilitation Medicine, Univ. of Washington

Current clinical position/s:

Physical Therapy Supervisor, UW Center on Human Development and Disability

Education:

1996 PhD in Rehabilitation Medicine/Special Ed, Univ. of Washington
1992-1996 Predoctoral Trainee Award, Office of Special Education and Rehabilitative Services, U. S. Department of Education
1979 M.S. in Exceptional Education, Univ. of Wisconsin, Milwaukee
1972 B.S. in Physical Therapy, Marquette Univ.

Current teaching responsibilities

Coord/primary instructor REHAB 591B, Graduate Project Seminar

Areas of research/special interests/expertise:

Early identification of neuromotor abnormality, development of postural control in infancy and childhood

APPENDIX D

EXISTING PROGRAM REVIEW: HEC BOARD SUMMARY

Name of unit: Division of Physical Therapy, Dept. of Rehabilitation Medicine

Name of school/college: School of Medicine, University of Washington

Degree title: Doctor of Physical Therapy

Year of last review: This is the first review.

Current date: February 1, 2010

A. Documentation of continuing need, including reference to the statewide and regional needs assessment (you may cut and paste from Part A, Section IV, above).

The demand for physical therapists is expected to grow 30% between 2008 and 2018, according to the Bureau of Labor Statistics (May 2008). A 2008 American Physical Therapy Association study found that 13-18% of physical therapy jobs are unfilled, depending on type of facility. With approximately 5,000 physical therapists in the state of Washington, that would mean several hundred currently open positions and the likelihood of an even more severe shortage in the future. Eastern Washington University currently accepts 38 students per year, and the University of Puget Sound 30. When the University of Washington increases our class size to 45, beginning in 2011 that will result in 113 new PTs trained in this state each year. This is well below even the current need, thus we anticipate demand for our graduates will remain very high for many years. Over the past five years, all of our graduates have taken jobs shortly after graduation (with the exception of those who entered post-professional education programs).

B. Assessment information related to expected student learning outcomes and the achievement of the program's objectives (you may cut and paste from Part A, Section II, above).

The overall goal of the program is to train knowledgeable, self-assured, adaptable, reflective, culturally competent physical therapists who are prepared for general practice. Successful student learning in the DPT program is evidenced by the high rate of program completion and high passing rates for the national physical therapy licensure examination. On average, over 95% of students enrolled in the DPT program graduate on time. In the first five years of the DPT program, 100% of students have passed the licensing exam.

The DPT program consists of 2 years which are primarily classroom-based learning, and 1 year of clinical internships. A graduate project at the end of the program serves as the capstone experience. The methods described below cover student evaluation during coursework, clinical internships, and the capstone experience. Methods for assessing the knowledge, skills, and behaviors are critical at each stage, because the Division of Physical Therapy offers a clinical doctorate.

a. Coursework: Student evaluation during coursework uses a variety of tools to assess knowledge, skills, and behaviors. Each course uses a variety of written, on-line, and practical evaluation methods. Courses commonly include written assignments, quizzes, and tests. Increasingly, online tools are being used for assignments, quizzes, tests, discussion forums, and group projects. Most courses include some laboratory or practical components. Examples of the evaluation of student learning that occurs for these components include laboratory exams, mock clinical experiences with simulated patients, and supervised clinical experiences. Evaluation of these components is intended to assess student knowledge (e.g., identification of certain structures in anatomy), skills (e.g., testing muscle strength using manual muscle testing), and behaviors (e.g., professionalism during interactions with simulated patients).

Academic and professional advising occurs at a minimum of every other quarter during the first 2 years of the program. Students meet individually with a faculty advisor to discuss academic progress and professional development.

b. Clinical Internships: During clinical internships, student learning is assessed primarily using the Physical Therapist Clinical Performance Instrument (CPI). The CPI is a standardized tool, required by the American Physical Therapy Association. It is designed to provide an overall assessment of clinical competence in a broad range of clinical settings and throughout the continuum of clinical learning experiences. The CPI is completed by the clinical instructor and by the student at the mid-point and at the end of each clinical experience. The student and clinical instructor rate the student's performance on 18 criteria in three broad areas:

- 1) Professional practice: safety, professional behavior, accountability, communication, clinical reasoning, and cultural competence
- 2) Patient management: screening, examination, evaluation, diagnosis and prognosis, plan of care, procedural interventions, educational interventions, documentation, and outcomes assessment
- 3) Practice management: financial resources, direction and supervision of personnel, professional development

c. The Program Capstone Experience: At the end of the program, a capstone experience is used to evaluate student performance in the program as a whole. This consists of an evidence-based case report for each student, with practical, written, and oral examination components. For the graduate project, each student must choose a case during their clinical internships. The student evaluates and treats this patient with guidance and supervision from the clinical instructor and faculty mentor. The student must then present a written and oral report demonstrating their ability to provide skilled, evidence-based physical therapy patient care. The capstone experience requires students to demonstrate their competency in skilled care by producing a critical, scholarly analysis of the patient care process as it pertains to a single patient.

C. Plans to improve the quality and productivity of the program.

Given the acute shortage of physical therapists regionally and nationally, one obvious goal of the Division of Physical Therapy is to successfully train excellent physical therapists. This is

arguably the most important thing we do. We take it very seriously and are constantly scrutinizing and adjusting that process.

1. Increasing the diversity of our student and faculty groups. We have taken part in numerous outreach programs, and continue to do so. These have included events sponsored by the Division, School of Medicine (SOM), and University. Currently we are consulting with Dr. David Acosta, director of the SOM Office of Multicultural Affairs. Dr. Acosta is helping us better embrace our commitment to diversity in such ways as modifying information about the program including our website, reconsidering how we weight certain applicant characteristics in our student selection process, and inviting us to take a more active part in SOM outreach activities.

Increasing the diversity of the faculty is hampered somewhat by the acute shortage of potential faculty. Open positions at many programs remain unfilled for months, sometimes longer. At the UW we generally have better luck in recruiting, but choosing from a vast array of applicants is rarely an option. Existing fellowship opportunities in the department, and our relatively new PhD in Rehabilitation Sciences program are providing some help in recruiting. For example, Valerie Kelly completed a postdoctoral fellowship here, under the mentorship of Anne Shumway-Cook. When a regular faculty position opened up, Dr. Kelly was able to apply, and was eventually hired. Currently, some of our PhD students and one post-doctoral fellow are members of under-represented groups (in the physical therapy profession) and will probably apply for faculty positions when they arise. Whether they are hired here or not, we are pleased to have trained them so that they may fill faculty positions somewhere! We hope to expand our PhD and fellowship opportunities in the future.

2. Experimenting with, or establishing different faculty models and mixes in the Division of Physical Therapy. Physical therapy education is relatively labor intensive, and requires a very broad range of expertise and roles in those who conduct it – from professors with cutting edge knowledge based on their own research, to lab instructors and assistants with clinical experience from which to draw when demonstrating and teaching precise, hands-on techniques for patient evaluation and treatment. Over the past several years, the division has achieved a core of PhD trained individuals with productive research agendas and the ability to mentor and collaborate among themselves, and with colleagues in the department and School of Medicine, etc. We are now in a position, particularly when those people successfully garner external funding, to add other positions to the mix of faculty – instructors, lab assistants, TAs, etc. Rather than going about this in a random, seat-of-the-pants way, we are hoping to develop guidelines for appropriate mixes of faculty and faculty appointments, including reasonable and appropriate workloads for each. We welcome any input on this.
3. Helping to alleviate the shortage of physical therapists. As a result of our recent remodel we will be able to increase our class size from 30 to 45. This will represent a 50% increase for us, but it is a mere drop in the bucket compared to the actual need for PTs. It is unlikely that additional space will be available at the UW main campus, so two possible options seem most likely for us: some type of late afternoon or evening program, and/or development of branch campus programs.

The UW Medical School WWAMI program is one possible model. In this program, students complete their first year of medical school at a distant site (Spokane or Boise, for example). Another model is the UW MEDEX physician assistant program. The entire MEDEX program is taught at three separate campuses (Seattle, Spokane, and Yakima) and utilizes online services where possible.

In an AM/PM model, lecture type classes in which all the students could meet in one room would be held during the middle of the day. Classes that require smaller groups of students, like most lab courses, would be held in the morning and late afternoon. So half of a cohort of students would have their classes in morning and mid-day, and the other half would have their courses in mid-day and evening. This model would require additional lab instructors, but could potentially work without increasing the number of lecturers.

4. A greater commitment to training (increasing the supply of) future faculty and advanced clinicians. In addition to a small number of pre and postdoctoral fellowship opportunities that are typically available in the Department of Rehabilitation Medicine, in 2006 the first cohort of six students began the PhD in Rehabilitation Science program. We are very proud of that program and the Division of Physical Therapy has a strong presence in it: Dr. Kartin is the director and two of our current faculty are enrolled (soon to finish!). Two other PhD students have served as our very first TA's, also a milestone for us.

As noted previously, we anticipate being able to recruit graduates of the PhD program for positions in division, but we are also pleased that they will also be available to fill positions at other programs. We believe the presence of the PhD students is already influencing the DPT students. One of our 2009 DPT graduates is already enrolled in a clinical residency at Rancho Los Amigos, and another has begun a PhD program in Biokinesiology at the University of Southern California. We engage the DPT students in research when opportunities present themselves, but are interested in other ways we might influence DPT students to consider careers in academia.

5. Establish some type of financial aid system or opportunity for students. Being enrolled in a self-sustaining program means our students are not eligible for some types of financial aid. For example, tuition waivers are available to exceptional UW students with proven financial need, and some of our students are initially informed they qualify for such waivers, only to find out they are not eligible after all.

One option for student aid is via donations, to set up scholarship funds. We do have some funds of this nature, and offer three \$5,000 scholarships each year (one to a member of each class). We continue to solicit support for these funds.

Another option would be to set aside a certain amount from the DPT (self-sustaining) budget to support student financial aid. Since the source of those funds would be tuition paid by all the students, the pros and cons of such aid are debatable. We intend to consult with the UW Office of Financial Aid about this issue, as well as representatives of other self-sustaining programs and private schools.

6. More online courses Besides Pathology, other courses are likely candidates for converting to an online model – pharmacology, physiology, even the lecture portion of anatomy. This, plus distance education techniques would likely be a key to successfully increasing our student numbers via one of the options described above.

Number of instructional faculty, students enrolled, and degrees granted over last five years (Autumn-Summer)

	2004-05	2005-06	2006-07	2007-08	2008-09	TOTAL
FTE instructional faculty	9.25	9.4	9.9	10	10.5	
FTE graduate teaching assistants					1	
Degree Program	DPT	DPT	DPT	DPT	DPT	DPT
Headcount of enrolled students	81	91	89	88	92	441
Number of degrees granted	19	32	30	29	28	230

NOTE: “Headcount of enrolled students” (undergraduate) = number of declared majors as of 10th day of Autumn Quarter.

Appendix E: Transcurricular Objectives

THE TRANSCURRICULAR OBJECTIVES:

1. Effective Communication: Throughout all aspects of the curriculum, the student will demonstrate effective expressive and receptive communication, both orally and in writing, with the entire classroom community including, but not limited to: instructors, peers, patients, clients, families, care givers, and other practitioners and community partners.

2. Diversity: Individual and Cultural Differences: Throughout all aspects of the curriculum, the student will demonstrate cultural competence and be able to demonstrate specific implications of cultural differences as they relate to physical therapy practice, research and education.

3. Life Span Perspective: The student will be able to articulate the importance of developmental differences across the lifespan that relate specifically to the curriculum content and generically to physical therapy practice, research and education.

4. Professionalism: Throughout all aspects of the curriculum, the student will demonstrate professional behavior in all interactions in the context of the broad physical therapy community including, but not limited to: instructors, peers, patients, clients, families, care givers, other practitioners and community partners.

5. Critical Inquiry and Decision Making: Evidence-based Practice: Throughout all aspects of the curriculum, the student will demonstrate clinical decision-making skills, including clinical reasoning, clinical judgment, and reflective practice in the application of course content to clinical problems.

Throughout the curriculum the student will demonstrate the ability to critique assigned readings and other published literature.

6. Physical Therapist as Educator: The student will effectively demonstrate the role of the physical therapist as educator through classroom and/or in-service presentations and in the development of educational materials that are responsive to the needs and unique characteristics of the learner.

7. Safe and Efficient Practice: Throughout all aspects of the curriculum, students will have demonstrated safe and efficient clinical practice that minimizes risk to the patient, client, physical therapist, and others.

8. Interprofessional Collaboration: Throughout all aspects of the curriculum, students will have demonstrated competence as effective team members in a collaborative interprofessional environment.

Appendix F Overview of Teaching Collaboration

Course	Other Rehab Dept. Faculty participation	PhD/Post-Doc student participation	PT Clinicians participation (UW or outside)	Other UW Depts. Faculty participation	Non-UW professional participation	Other (specify)
YEAR 1						
MedEx 452				X	X	
Rehab 403	X					
Rehab 444						
Rehab 451						
Rehab 504	X	X	UW			
Rehab 509		X	UW			
Rehab 517 I-IV		X		X		UW librarian
Conj 480	X	X	UW	X		pts. from community
Rehab 400	X + OT/PO	X		X		
Rehab 445	X			X		
Rehab 452						
Rehab 506			UW & outside			
Rehab 401	X +OT/PO	X		X		
Rehab 442	X+PT/OT/PO					
Rehab 448	PT/OT/PO					
Rehab 507			UW			product rep
Rehab 536		X				outpts from community
Rehab 508		X	outside			
Rehab 537		X	UW & outside			community activist
Rehab 538		X	UW & outside			
Rehab 540		X	UW & outside			
Rehab 500			UW & outside			

Overview of Teaching Collaboration continued

Course	Other Rehab Dept. Faculty participation	PhD/Post-Doc student participation	PT Clinicians participation (UW or outside)	Other UW Depts. Faculty participation	Non-UW professional participation	Other (specify)
YEAR 2						
Rehab 414	X	X		X		outpts from community
Rehab 476	PO					
Rehab 511			outside		X	
Rehab 523		X	UW & outside			outpts from community
Rehab 566 I, II	X	X		X	X	
Rehab 502 A,B	X	X	UW & outside	X		parents & children
Rehab 512			UW & outside			
Rehab 527	X		UW & outside	X		patients & caregivers
Rehab 529			X	X		state PT Board
Rehab 503	X		outside	X	X	older adults
Rehab 513	X		UW & outside	X		
Rehab 416			UW & outside			
Rehab 505	X			X		
Rehab 514	X		outside	X	X	
YEAR 3						
Rehab 591	X		UW & outside			
Rehab 595			UW & outside			

Appendix G
University of Washington
Department of Rehabilitation Medicine
Division of Physical Therapy

Physical Therapy Curriculum Tracks
 (For students graduating in 2012)

Professional Development (14 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
A1	Rehab 517	PT Seminar I: Professional Development	Debbie Kartin	2*
W1	Rehab 517	PT Seminar II: Professional Development	Debbie Kartin	2*
Sp1	Rehab 517	PT Seminar III: Professional Development	Debbie Kartin	2*
S1	Rehab 517	PT Seminar IV: Professional Development	Debbie Kartin	2*
A2	Rehab 566	Interdisciplinary Case Seminar	Cheryl Kerfeld	1*
W2	Rehab 529	Professional / Practice Issues	Mark Guthrie	2*
Sp2	Rehab 566	Interdisciplinary Case Seminar	Cheryl Kerfeld	1*
S2	Rehab 416	Physical Therapy Administration	Mark Guthrie	2*
<i>Quarters: A = autumn, W = winter, Sp = spring, S = summer; 1 = year 1, 2 = year 2, 3 = year 3</i>				<i>* = credit / no credit</i>

Clinical Sciences (20 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
A1	Medex 452	Pathophysiology for Primary Care	Henry Stoll	6*
W1	Rehab 400	Medical Sciences I	Sara Morgan	4*
Sp1	Rehab 401	Medical Sciences II	Sara Morgan	4*
A2	Rehab 414	Psychological Aspects of Rehabilitation	David Patterson	2*
S2	Rehab 505	Introduction to Pharmacology	Mark Guthrie	2*
S2	Rehab 566	Advanced Special Topics in Rehabilitation	Kim Bennett	2*
<i>Quarters: A = autumn, W = winter, Sp = spring, S = summer; 1 = year 1, 2 = year 2, 3 = year 3</i>				<i>* = credit / no credit</i>

Procedures (19 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
A1	Rehab 504	PT Procedures I - Limbs	Murray Maitland	2
A1	Rehab 509	Functional Skills	Cyndi Robinson	1
W1	Rehab 506	PT Procedures II - Spine	Stephanie Eusebio, Kim Bennett	2
Sp1	Rehab 507	PT Procedures III - Modalities	Kim Bennett	3
Sp1	Rehab 536	Patient Evaluation & Clinical Decision Making	Cyndi Robinson, Cheryl Kerfeld	1
S1	Rehab 508	Principles of Therapeutic Exercise	Kevin McQuade, Anat Lubetsky-Vilnai	4
S1	Rehab 537	Functional Mobility Skills	Patti Matsuda, Cheryl Kerfeld	2
S1	Rehab 538	Circulatory / Integumentary Management Unit	Cyndi Robinson	2
S1	Rehab 540	Acute Care Physical Therapy Unit	Cyndi Robinson	2
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Lifespan (11 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
W2	Rehab 502	Lifespan II: Pediatrics A	Sally Westcott McCoy	4
Sp2	Rehab 502	Lifespan II: Pediatrics B	Sally Westcott McCoy	4
Sp2	Rehab 503	Lifespan III: Geriatrics	Patti Matsuda	3*
Neuroscience (14 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
A1	Rehab 403	Physiological Principles for Rehab Professionals	Jeff Slimp, Greg Kinney	2
W1	Conj 480	Neuroscience for Rehabilitation Professionals	Kate Mulligan, Jeff Slimp, Greg Kinney	5
A2	Rehab 523	Applied Neurology	Patti Matsuda, Valerie Kelly	4
W2	Rehab 527	Advanced Topics in Neurologic Rehabilitation	Valerie Kelly	3
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Basic Musculoskeletal (15 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
A1	Rehab 444	Musculoskeletal Anatomy I	Mark Guthrie	4
A1	Rehab 451	Functional Anatomy Lab I	Mark Guthrie	1*
W1	Rehab 445	Musculoskeletal Anatomy II	Mark Guthrie	4
W1	Rehab 452	Functional Anatomy Lab II	Mark Guthrie	1*
Sp1	Rehab 442	Applied Kinesiology	Mark Guthrie	4
Sp1	Rehab 448	Applied Kinesiology Lab	Cyndi Robinson	1*
Applied Musculoskeletal (17 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
A2	Rehab 476	Prosthetics & Orthotics Evaluation & Use	Danny Abrahamson, Sue Ewers	2*
A2	Rehab 511	Musculoskeletal IV - Clinical Mgmt - Spine	Kim Bennett	5
W2	Rehab 512	Musculoskeletal V - Clinical Mgmt - Limbs	Murray Maitland	4
Sp2	Rehab 513	Musculoskeletal VI: Special Topics	Kevin McQuade	3*
S2	Rehab 514	Systems Review for Physical Therapists	Murray Maitland, David Musnick	3
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Graduate Project (7 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
S2	Rehab 591	Graduate Project Seminar	Kathie Washington	3*
A3	Rehab 591	Graduate Project: Case Report - Selection	faculty mentors	1*
W3	Rehab 591	Graduate Project: Case Report - Analysis	faculty mentors	1*
Sp3	Rehab 591	Graduate Project: Case Report - Dissemination	faculty mentors	2*
Clinical Training (34 credits)				
Qtr.	Course #	Course Title	Coordinator	Credits
S1	Rehab 500	Clinical Clerkship	Cyndi Robinson	4*
A3	Rehab 595	Clinical Internship I	Cyndi Robinson	10*
W3	Rehab 595	Clinical Internship II	Cyndi Robinson	10*
Sp3	Rehab 595	Clinical Internship III	Cyndi Robinson	10*
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University of Washington
 Department of Rehabilitation Medicine

DOCTOR OF PHYSICAL THERAPY DEGREE PROGRAM PLAN

YEAR ONE		YEAR TWO		YEAR THREE	
QUARTER 1 - AUTUMN CREDITS		QUARTER 5 - AUTUMN CREDITS		Q9 AUT CREDITS	
Medex 452 Pathophys Primary Care	*6	Rehab 414 Psych Aspects of Rehab	*2	REHAB 591:	
Rehab 403 Phys Prin Rehab Pro	2	Rehab 476 Prosthetics & Orthotics	*2	Graduate Project	*1
Rehab 444 Musculoskel Anatomy	4	Rehab 511 Musc IV: Clinical Mgt	5	REHAB 595:	
Rehab 451 Functional Anatomy Lab	*1	Rehab 523 Neuro III: Applied Neuro	4	Clinical Internship	*10
Rehab 504 PT Procedures I: Assess't	2	Rehab 566 Interdisc Case Seminar	*1	TOTAL CREDITS	11
Rehab 509 PT Proced: Func Skills	1				
Rehab 517 PT Seminar I	*2				
TOTAL CREDITS	18	TOTAL CREDITS	14	TOTAL CREDITS	11
QUARTER 2 - WINTER CREDITS		QUARTER 6 - WINTER CREDITS		Q10 WIN CREDITS	
Conj 480 Neurosc for Rehab Pro's	5	Rehab 502 Pediatric PT, Part A	4	REHAB 591:	
Rehab 400 Medical Sciences	*4	Rehab 512 Musc V: Clinical Mgt	4	Graduate Project	*1
Rehab 445 Musculoskel Anatomy	4	Rehab 527 Neuro IV: Special Topics	3	REHAB 595:	
Rehab 452 Functional Anatomy Lab	*1	Rehab 529 Pro'l/Practice Issues	*2	Clinical Internship	*10
Rehab 506 PT Procedures II: Assess't	2			TOTAL CREDITS	11
Rehab 517 PT Seminar II	*2				
TOTAL CREDITS	18	TOTAL CREDITS	13	TOTAL CREDITS	11
QUARTER 3 - SPRING CREDITS		QUARTER 7 - SPRING CREDITS		Q11 SPR CREDITS	
Rehab 401 Medical Sciences	*4	Rehab 502 Pediatric PT, Part B	4	REHAB 591:	
Rehab 442 Applied Kinesiology	4	Rehab 503 Lifespan III: Geriatrics	*3	Graduate Project	*2
Rehab 448 Applied Kinesiolo Lab	*1	Rehab 513 Musc VI: Special Topics	*3	REHAB 595:	
Rehab 507 PT Proc III: Modalities	3	Rehab 566 Interdisc Case Studies	*1	Clinical Internship	*10
Rehab 517 PT Seminar III	*2			TOTAL CREDITS	12
Rehab 536 Patnt Eval Clin Dec'n	1				
TOTAL CREDITS	15	TOTAL CREDITS	11	TOTAL CREDITS	12
QUARTER 4 - SUMMER CREDITS		QUARTER 8 - SUMMER CREDITS			
Rehab 508 Principles Ther Ex	4	Rehab 416 PT Admin	*2		
Rehab 517 PT Seminar IV	*2	Rehab 505 Intro to Pharmacology	*2		
Rehab 537 Funct Mobil Skills	2	Rehab 514 Systems Review for PTs	*3		
Rehab 538 PT Integ Circ Mgmt	2	Rehab 591 Graduate Project Seminar	*3		
Rehab 540 Acute Care Prac PT	2				
Rehab 500 Clinical Clerkship	*4				
(Last 4 wks of qtr)					
TOTAL CREDITS	16	TOTAL CREDITS	10		

* = credit/no credit

149 program credits