

Proposal for The Part-Time Post Baccalaureate Doctor of Pharmacy Program

**Leslie Dan Faculty of Pharmacy
University of Toronto**

**University of Toronto
Leslie Dan Faculty of Pharmacy**

Proposal for The Part-Time Post Baccalaureate Doctor of Pharmacy Program

Table of Contents

Introduction.....	3
Purpose.....	3
Background/Rationale.....	3
Objectives of the e-learning Format.....	4
Activities to Date.....	5
Description of the Part-Time Program.....	5
Overview.....	5
Enrollment Projections.....	5
Application Procedures.....	5
Admissions Requirements.....	5
Registration and Records.....	6
Curriculum Requirements.....	6
University Grading Policy.....	6
Course/Faculty Evaluation.....	6
Academic Rigor.....	6
Sequence of Study.....	6
Orientation/On-site visits.....	7
Library Resources and Information Support.....	8
e-Learning Delivery Methods.....	8
Program Web Site.....	8
Course Web Site Design.....	8
Faculty Qualifications.....	8
Faculty Preparation for Teaching.....	9
Seminars/Workshops.....	9
Individual Course Professor Support.....	9
Resources for Faculty Support.....	9
Student Preparation for e-Learning.....	9
Support for Making an Informed Decision.....	9
Orienting Students to the e-Environment.....	9
Program Level Measurement and Evaluation.....	9
Policies and Procedures.....	9
Resource Implications.....	9
Students.....	9
Faculty.....	10
Administrative and Support Staff.....	10
Technical Requirements.....	10
Financial Requirements.....	11

Part-Time Post Baccalaureate Doctor of Pharmacy Program

Introduction

The University of Toronto, Leslie Dan Faculty of Pharmacy, proposes to be the first in Canada to offer a part-time Doctor of Pharmacy degree utilizing an e-learning format. This part-time degree will enable practicing pharmacists to become distance learners. This new program will be modeled on the existing Doctor of Pharmacy degree and will be considered to be academically equivalent.

The proposed start date is August 2004

All University of Toronto program requirements and standards will be maintained. The part-time degree will have the same rigor and achieve the same outcomes as the full-time degree. The learning experience will be enriched by the development of a community of scholars from all across Canada. The development of an e-learning format will be consistent with the directions articulated in documents from the University Task Force related to technology assisted education at the University of Toronto.

The faculty of the Doctor of Pharmacy Program are ready to develop and deliver this part-time program. There is a large demand from pharmacists to develop a program that will allow them to continue their practice while they educate themselves in providing care in complex pharmacotherapy situations. We have received over 150 requests and inquiries about the development of a part-time distance program.

Purpose

The purpose of this proposal is to provide key information with regards to:

- Background and rationale for developing a part-time Doctor of Pharmacy degree
- Objectives of e-learning format
- Activities to date
- Program description including: overview, enrolment projections, application procedures, admission requirements and standards, registration and records, curriculum, grading, course/faculty evaluation, academic rigor, sequence of study and length of program, on site requirements, library resources and information support, e-learning delivery methods, faculty qualifications, faculty preparation for teaching in an e-learning program, student preparation for e-learning, program evaluation and policies and procedures.
- Resource implications: students, faculty, administrative and support staff
- Technical support requirements
- Budget projections

The framework for this proposal was based on the Faculty of Nursing proposal to convert the Acute Care Nurse Practitioner Field of Study in Masters of Nursing Program to an e-learning format

Background/Rationale

The Doctor of Pharmacy program at the Leslie Dan Faculty of Pharmacy, University of Toronto is a two-year post-baccalaureate degree that provides small group in-class problem based learning and experiential one on one training at off site placements. The program was developed in 1992 to offer Canadians the opportunity to obtain this degree without having to relocate to the United States. Since its inception, the Doctor of Pharmacy Program has been the leader and innovator of this degree in Canada.

Several factors in pharmacy education have changed over the last decade. These changes have led to the realization that if the program is to continue to be on the cutting edge of pharmacy

education in Canada, it must develop a part-time post baccalaureate degree. The undergraduate pharmacy program changed from a direct high school entry program to a 1 plus four year program (where students must complete a minimum of 1 year of university education before applying to pharmacy. Approximately 40% of the entering class in 2003, have a previous degree. These individuals are older; they may be starting families and have debt loads that may not allow them to return to school full time to pursue a higher degree. Even younger graduates have higher debt loads than students of 10 years ago.

The second factor that supports the creation of a part-time program is pressure from Pharmacy education in the United States. Pharmacy schools in the US converted all baccalaureate programs to entry level Doctor of Pharmacy Programs. As a result, many U.S. programs created part-time programs to allow practicing pharmacists the opportunity to upgrade their degree. These part-time programs were among the first health professional degree programs that could be obtained through e-learning. Many Canadians have realized that this is an opportunity for them to obtain a Doctor of Pharmacy degree while continuing to work and practice in their own community. The purpose of this program is to offer Pharmacists the opportunity to obtain a Doctor of Pharmacy degree on a part-time basis through an e-learning format in Canada. The Pharm.D. degree completed through the University of Toronto, will be a post graduate experience vs an entry to practice degree, which our students already have.

There are pressures within Canada to establish entry-level Doctor of Pharmacy Programs to replace baccalaureate programs. When this occurs practicing pharmacists may want to obtain an entry-level PharmD degree. This part-time program can be easily modified to provide a mechanism for those pharmacists to upgrade their degree.

We have gained experience with e-learning through a pilot project that was conducted in January 2003. The pilot involved the delivery of course materials and tutorial sessions via the Internet. Both full-time students and graduates of the program were involved in the pilot. The pilot was considered to be successful and achieved the required levels of academic rigor. It is now time to take the opportunity to develop a part-time program. Demand for a part time program from practicing pharmacists is increasing and we have had numerous requests to develop a program.

Objectives of the e-learning Format

The specific objectives of the part-time program are to:

- Immediately increase equitable access to the University of Toronto's nationally recognized Doctor of Pharmacy degree by making innovative and effective use of technology
- Maintain the rigor and quality of the current Doctor of Pharmacy Program
- Increase the number of advanced practice clinical pharmacy practitioners to meet the current needs of the health care system
- Increase skills in web-based technology for continued life-long learning
- Support and encourage more effective use of technology in the delivery of health care services and education.
- Involve expert clinicians from all across Canada in the Doctor of Pharmacy Program at the University of Toronto

Activities to Date

In the fall of 2000, the Doctor of Pharmacy program included the development of a part-time PharmD program in their strategic plan.

- September 2002. Decision was made to pursue the development of a part-time Doctor of Pharmacy Degree

- October 2002. Program Director and Coordinator met with Resource Centre for Academic Technology at University of Toronto to initiate a pilot project to test the development of an e-learning class in pathology and a therapeutic case.
- November 2002. Program Coordinator and Faculty members attended Web-CT course training sessions. A date for the pilot was chosen.
- December 2002. Course materials were converted to an electronic format. Students agreed to participate in the pilot.
- January 2003. Pilot was conducted with students and feedback was obtained.
- February 2003. Pilot lecture/tutorial was conducted with alumni. Feedback was obtained.
- April 2003. Course materials for therapeutics were delivered by Web-CT during SARS outbreak.
- May 2003. Sponsorship materials were developed for support of the part-time program.
- June 2003. Working committee was struck to identify faculty needs to develop on-line courses.
- September 2003. Faculty workshop on e-learning was conducted by W. Seller, Co-ordinator, Technology-mediated and Off-campus programs, Ontario Institute for Studies in Education of the University of Toronto.
- October 2003 Program Director and Coordinator met with M van Soeren – Assistant Professor, Director of Nurse Practitioner Programs to obtain information on the Master of Nursing Program e-learning format.
- November 2003. A computer program designer, programmer and an expert in e-learning instructional design were consulted to assist faculty members in the development of individual e-learning courses.
- November 2003. A faculty retreat was held to develop the part-time PharmD program structure, policies and procedures.

Description of the Part-time e-learning Doctor of Pharmacy Program

Overview

The part-time Doctor of Pharmacy degree will consist of 2 parts. The first part of the program contains 12 courses that can be completed on a part-time basis over approximately a 2-year period (98 weeks). Students will be required to spend on average, 25 hours/week on their studies. The second part of the program consists of 11 experiential rotations. These rotations can be done based on individual student time-tables, however they must be completed within 2 years. Therefore the part-time program may be completed over a 3 – 4 year period.

Enrollment Projections

There will be 12 positions in the first class of the part-time program. These students will progress through the curriculum as a cohort. This number was chosen after consultation with experts involved in problem-based e-learning. It appears that this is the optimal size for Problem Based Learning and facilitates chat room/bulletin board group discussions. It is anticipated that once the program is established several groups may be enrolled concurrently (depending on the demand).

Application Procedure

Applicants wishing to apply to the part-time program will follow the same procedures used for applying to the current full-time program. However, there are separate forms and deadline dates for each program. The application process and forms have been placed on the Doctor of Pharmacy website.

Admission Requirements and Standards

Applicants seeking admission to the part-time program will meet the same requirements as those admitted to the current full-time program.

Registration and Records

Successful applicants will be registered through the Doctor of Pharmacy Program, Leslie Dan Faculty of Pharmacy and the University's Repository of Student Information.

Curriculum Requirements and Standards

Current revisions to the full-time Doctor of Pharmacy Degree have eased the development of a part-time e-learning program. The revised curriculum has been reconfigured from 9 to 12 courses in the first year, with no reduction of academic content. The full-time and part-time program will have similar academic content and educational outcomes.

University Grading Policy

Course professors will employ the grading practices specified by the Leslie Dan Faculty of Pharmacy, University of Toronto.

Course/Faculty Evaluation

As per the Leslie Dan Faculty of Pharmacy's policy, each course and its instructor are assessed and evaluated by the learner. Initial e-course offerings will have mid-course and final course evaluations completed by the learners. Subsequent e-course offerings will only have final course evaluations completed by the learners.

Initial evaluations will also include information from students and instructors with regards to whether course objectives were met, the time spent on course study, and the comfort level with technology.

Academic Rigor

The academic rigor of the part-time program will be ensured by:

Maintaining the same admissions requirements, curriculum and standards as the current full-time program.

Carefully monitoring and evaluating the program.

Involving expert clinicians from across Canada to be our content experts / facilitators.

Sequence of Study and Length of Program

Courses

PHM 601 – Foundations for Advanced Pharmacy Practice
PHM 602 – Advanced Pharmacokinetics
PHM 605 – Critical Appraisal
PHM 607- Health Care Systems: A Context for Pharmaceutical Care
PHM 608 – Introduction to Teaching Techniques
PHM 609 – Patient Assessment
PHM 611 – Advanced Pharmacotherapy - Cardiology
PHM612 – Advanced Pharmacotherapy – General Medicine I
PHM 613 – Advanced Pharmacotherapy – Infectious Diseases
PHM 614 – Advanced Pharmacotherapy – General Medicine II
PHM 615 – Advanced Pharmacotherapy – Neurology/Psychiatry
PHM 706 – Doctor of Pharmacy Seminar

Full Time Program

Part I - July 2 – June 15

Summer	Fall	Winter	Spring
PHM 601	PHM 602	PHM 602	PHM602
PHM 602	PHM 611	PHM 613	PHM 609
PHM 605	PHM 612	PHM 614	PHM 615
PHM 608	PHM 613	PHM 608	PHM 706
	PHM 706	PHM 609	

Part II – 11 four week experiential rotations July – May and PHM 706, Seminar

Part Time Program

Part 1

Orientation – Onsite 1

Week 1-8 PHM 605 / PHM 608

Week 9-16 PHM 601 / PHM 602

Week 17-30 PHM 611 (Week 17-92 PHM 602)

Week 31 – On-site 2

Week 32-47 PHM 612

Week 48 Exams

Week 49-62 PHM 613 / PHM 607

Week 63 Exams

Week 64-77 PHM 614 (Week 72-93 PHM 609)

Week 78 Exams

Week 79-92 PHM 615

Week 93 On-site 3

2 weeks will be allowed each year for a Christmas break

Part II – 11- 4 week experiential rotations and PHM 706, Seminar

Rotations will be scheduled and arranged by individual students, so they can accommodate their own time-table. All rotations must be approved by the Doctor of Pharmacy Program, 60 days prior to the student's start date. All rotations must be completed within 24 months. Rotation requirements and standards are the same as those for the full- time program.

The sequence of courses and on-site visits is deliberate and is normally not flexible. Due to the fixed format of the program, the learner should progress through the program with their original cohort. Those who do not stay with their cohort or miss a segment (if approved) would be required to wait until the course is offered again and be assigned to a new cohort in order to continue in the program.

Orientation and On-site Requirements

Orientation and on-site visits will allow the faculty to conduct face-to-face interactions with the students. During these visits to the University of Toronto's St George campus, students will engage in educational activities that may not be optimally delivered by electronic format. Activities may include oral examinations, seminars, teaching assessment and physical assessment skill development.

Orientation

The objectives of the orientation will be to provide an introduction to the program, orientation to web-based technology, orientation to U of T learner resources (i.e. library, tech. support), to establish networks among faculty and students and present introductory academic content

On-Site Visit I (week 32)

This site visit will be 4 days in length. During the visit, students will present a seminar, undergo face-to-face oral evaluation and be involved in teaching assessment/evaluation.

On-Site Visit II (week 94)

This on-site visit will occur at the end of part I of the part-time program. This will be a 4-day visit. During this visit, students will be involved in patient assessment evaluations and seminar. This visit will allow the faculty to evaluate the students to ensure they are ready to move on to part II of the program.

Living accommodations for students during the on-site visits will be facilitated with emphasis on ease of access to the university campus and affordable living costs.

Library Resources and Information Support

The University of Toronto Library (UTL) provides 24/7 web access to its catalogue and to a comprehensive collection of electronic indexes, full-text journals and references in the health sciences. "My Library" is an application developed by the library, facilitates delivery of these resources through a portal, which can be customized to the part-time Doctor of Pharmacy program courses.

The Pharmacy library and Gerstein Science Information Centre of the UTL have expertise in health science information and provide web and telephone reference assistance to support distance learning. Web-based or on-site instruction focused on information literacy and the effective use of electronic information resources, can be provided by Pharmacy/Gerstein's librarians. Pharmacy and Gerstein's extensive collection of print resources can be made available to remote learners through document delivery arrangements (courier, fax or desktop delivery).

e-Learning Delivery Methods

The part-time program of the Doctor of Pharmacy degree will be using WebCT as its courseware program. WebCT is supported by the Resource Centre for Academic Technology at the University of Toronto. It is the courseware program that was used in the part-time program demonstration pilot project.

Program Web Site

The Part-Time Doctor of Pharmacy Program web site will be embedded within the Doctor of Pharmacy Program web site which is embedded in the Leslie Dan Faculty of Pharmacy web site.

WebCT Courseware Site

WebCT courseware will be accessed through the University of Toronto's Webct site. Each faculty member will have access to an instructional designer who has received a doctorate degree in Computer Applications from the Department of Curriculum, Teaching and Learning, Ontario Institute for Studies in Education at the University of Toronto. Each course will have objectives that are similar to those of courses in the full-time program. Students will work through activities and participate in planned interactions. On-line networking and interaction with the course professor and other students will be supported in a variety of ways within both course and program websites.

Faculty Qualifications

All faculty who will teach in the Part-Time Doctor of Pharmacy Program will meet the same requirements as those for core faculty.

Faculty Preparation for Teaching in an e-Learning Program

Seminars / Workshops

Seminars and discussion groups illustrating various on-line courses have been conducted for all faculty of the Doctor of Program. Reference material regarding e-learning has also been distributed to faculty members.

Support for Individual Course Instructors

Each faculty member will be required to take courses in WebCT offered by the Resource Centre for Academic Technology at University of Toronto. Faculty members will also be able to individually consult with an instructional designer when developing their on-line courses. They will receive administrative support for their courses and for the conversion of materials into an electronic format.

Resources for Faculty Support

Committee on the PharmD Program
Ontario Institute for Studies in Education
Resource Centre for Academic Technology at the University of Toronto
University of Toronto Libraries

Student Preparation for e-Learning

Support for making an Informed Decision

Information regarding e-delivery and the expectations of a part-time program will be broadly available so that potential students can make an informed decision regarding applying to the program or accepting an offer. (i.e. Faculty of Pharmacy website, interview process, letters of offer)

Orienting Students to the e-Environment

Students will receive information on technical requirements, e-etiquette, practice sessions for on-line synchronous and asynchronous discussions, chats and on-site orientation at the beginning of the program. They will also receive ongoing technical support from our administrative staff through email, and telephone.

Program Level Measurement and Program Evaluation

The part-time Doctor of Pharmacy program will undergo a number of different evaluations. Some of the outcomes that will be measured include, admission rates, time to completion, graduation rates, geographic base, student/faculty satisfaction with e-learning, level of support and course content and program graduates types and rates of employment.

Policies and Procedures

The policies and procedures for the part-time Doctor of Pharmacy program will be the same as for the full-time program unless otherwise stated in this proposal.

Resource Implications

Students

Costs may be partially offset by the ability to continue to practice on a part-time basis as well by the reduced requirements for relocating expenses, regular travel to and from campus and possibly living in Toronto.

Costs to the student will include: tuition, textbooks, course materials, living costs including travel, accommodations and meals to attend the three on-site requirements, travel and accommodation and related expenses to rotation sites, computing equipment and occasional long distance telephone connection charges. Every effort will be made to minimize student costs.

Faculty

Training and support will be provided to faculty members. Computer equipment and software will be provided for course instructors at the Doctor of Pharmacy Program. However faculty may incur personal costs for computer hardware and software if they elect to work on course development and delivery from their homes.

Administrative Support Staff

Administrative positions will be comprised of:

1 - 50% Administrative position, USWA

1 - 40% Office Manager position, Professional Managers Group

In addition to the Full-Time Doctor of Pharmacy Program, staff will also be responsible for the administration and maintenance of the new Part-Time, Doctor of Pharmacy Program. The challenges involved with meeting the demand of the new Program, while maintaining current support for the Full-Time Program, will result in a redistribution of current responsibilities as well as the addition of new skills and responsibilities, associated with the Part-Time Program. The current information assistant position, will become an administrative position, as this individual will be required to take on certain duties previously performed by the Program Coordinator. In addition, this individual must have excellent computer skills, data management skills, will be required to retrieve payroll information from all tutors and preceptors, will assist with booking accommodation for on-site visits and will be required to assist the Director, faculty, Office Manager and potential applicants with matters related to the Program. This position will continue to be within USWA.

The Program Coordinator position will become an Office Manager position within the Professional Managers group. In addition to many current responsibilities associated with the Full-Time Program, this individual will assume additional business and budgetary responsibilities associated with the new Part-Time accounts and will be involved with the tracking of students and the projection of income. Additional responsibilities will include organizing and arranging an on-site orientation for Part-Time students, teaching new students how to use WebCT, arranging several on-site blocks during the Part-Time Program, ensuring the Program's website is up to date, ensuring Webct for each on-line course is up to date and that materials are converted and posted to Webct, ensuring that student registration, marks and student information is maintained in ROSI and providing T.A. assistance to faculty as necessary. This position is within the Professional Managers group, since this individual is responsible for producing and maintaining confidential information, reports, finances, counseling students, handling petitions and supervising staff

Technical Requirements for Both Learners and Faculty

Computer: PC-based (Mac acceptable if able to run the required software below)

Internet access: High speed or Broadband connection (Cable modem, DSL, Satellite, T1, T3, etc.)

Internet browser: Microsoft Internet Explorer 6+ or Netscape 6+

Processor: Pentium-class or Celeron-class at 700+ mhz

RAM: 128 MB

Hard drive: 10 GB

Sound card: 16-bit

CD-ROM drive: CD-ROM

Operating System: Windows 2000, or Windows XP

Software: Microsoft Office Suite including PowerPoint and Word

Downloads / Plugins: Windows Media Player, Adobe Acrobat Reader, Flash

Player Plugin, others as specified during the program
Additional Hardware: Some courses may require a web cam and
microphone/headset.

Financial Requirements:

The Part-Time Distance Education Program will be self sustainable, based on an enrollment of 12 students. The tuition for the current full time program is approximately \$25 000 per year which can be offset by bursary assistance. The tuition for the part time program will be approximately \$12 500 per year. Future revenues generated from this Program, may be used as bursary assistance to students in the second phase of the Program, to offset costs associated with completing the required rotations. This will make the tuition for both the full time and part-time program the same.