

# **Degree Level Expectations for Graduates Receiving the Degree of Bachelor of Science in Pharmacy**

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

November 2008

### **1 Introduction**

The Mission of the Leslie Dan Faculty of Pharmacy is to be at the forefront of internationally significant innovation in the discovery and mobilization of pharmaceutical knowledge in the pursuit of health. Additionally we are committed to lead the nation in offering the most innovative and leading-edge education programs in pharmacy, making these programs accessible to a greater number of qualified applicants. The University of Toronto, undergraduate program in pharmacy leading to a Bachelor of Science in Pharmacy degree is fully accredited by the Canadian Council on Accreditation of Pharmacy Programs. The last successful accreditation was in 2007, with a full term of 6 years granted until 2013.

The Canadian Council on Accreditation of Pharmacy Programs receives assistance and support from the Accreditation Council for Pharmacy Education in the United States and the Canadian Medical Association Conjoint Accreditation Services. CCAPP is composed of representatives appointed by the Association of Deans of Pharmacy of Canada, the Association of Faculties of Pharmacy of Canada, the Canadian Pharmacists Association, the Canadian Society of Hospital Pharmacists, the National Association of Pharmacy Regulatory Authorities and The Pharmacy Examining Board of Canada. There is also a non-pharmacy member on the Council.

Accreditation Standards address items in the following categories

1. Mission, planning and evaluation
2. Organization and administration
3. Academic program
4. Pharmacy students
5. Faculty and staff
6. Facilities and learning resources

Each Faculty undergoes a full on-site visit at least every 6 years. First the University makes an application for accreditation, a site evaluation is conducted by a four-member team composed of a CCAPP board member, a dean, a pharmacy faculty member and the executive director of CCAPP. The team seeks information to supplement the comprehensive internal review report, assesses the feasibility of the strategic plan, and prepares a draft evaluation report. The Executive director prepares the final evaluation report on the Faculty. The board of directors makes a decision on the appropriate accreditation status to be granted the Faculty and determines the time period for the submission of the progress report and/or any conditions to be associated with the accreditation award. The University president and the dean of the Faculty are advised of the Board's decision and the accreditation status is published in the CCAPP Annual Report and Directory of Accredited Programs. Full accreditation is granted for six years. Thus, an ongoing cycle of comprehensive internal review, strategic planning and external review is established within each Faculty of Pharmacy.

## **2 Degree Learning Objectives and Requirements**

### **2.1 Overall Learning Objectives**

The Leslie Dan Faculty of Pharmacy aims to meet the educational outcomes for a baccalaureate pharmacy graduate in Canada, set forward by the Associations of Faculties of Pharmacy of Canada. There are general outcomes as well as specific outcomes. An outcome is defined as what a graduate should be able to do with what they have learned.

The general outcomes are: knowledge and thinking abilities, planning abilities, communication abilities, values and ethical principles, self-directed learning abilities and professional identity.

The specific outcomes contain both an outcome unit (which is a general description of the outcome) and outcome elements (which are parts that are needed to accomplish the whole).

The 7 specific outcomes and their outcome units are:

#### **Outcome #1 – Meets Patients’ Drug-Related Needs**

Outcome Unit: Pharmacy graduates, in partnership with patients and other health care providers, use their knowledge and skills to meet patients’ drug-related needs, with the objective of achieving optimal patient outcomes and maintaining or improving the patients’ quality of life.

#### **Outcome #2 – Assume Legal, Ethical and Professional Responsibilities**

Outcome Unit: Pharmacy graduates will be able to practice within legal responsibilities, uphold ethical and professional standards of practice, fulfill professional responsibilities and contribute to the development of the profession.

#### **Outcome #3 – Provide Drug and Drug Use Information and Recommendations**

Outcome Unit: Pharmacy graduates provide information and recommendations to individuals and groups concerning drugs and drug use to ensure optimum and cost effective patient care and to promote health.

#### **Outcome #4 – Educate about Drugs, Drug Use and Health Promotion**

Outcome Unit:

Pharmacy graduates educate individuals and groups to encourage appropriate drug use and to promote health.

#### **Outcome #5 – Manage Drug Distribution**

Outcome Unit: Pharmacy graduates meet patients’ requirements for the accurate supply of quality pharmaceuticals by taking responsibility for the functions of distribution and preparation of pharmaceuticals.

#### **Outcome #6 – Understand Practice Management Principles**

Outcome Unit: Pharmacy graduates demonstrate an understanding of management principles with the goals of optimizing patient care and the use of practice resources.

Outcome #7 – Apply the Principles of Scientific Inquiry to Contribute to the Profession and Society

Outcome Unit: Pharmacy graduates will apply the principles of scientific inquiry to address pharmacy practice issues.

We recognize that students will have to have a strong foundation in the basic sciences including biomedical, and pharmaceutical sciences to achieve the above outcomes.

Additionally the faculty supports interprofessional education to prepare students for collaborative practice.

In order to graduate, each student must have met the requirements outlined in Section 2.2 each of which is based on assessment of specific learning objectives based on the outcomes summarized above.

## **2.2 Requirements to Graduate**

Course work in Pharmacy is set out over 4 years. Each year of the program is predefined and students must successfully complete all course work for a given year and have a GPA of 1.7 before proceeding to the next year.

Students must achieve a final grade of at least 60% in PHM courses and at least 50% in non-PHM courses before they may advance to the next higher year.

In addition to the predetermined course work in the fourth year of the program students must also complete 1 of 3 selective courses in social and administrative pharmacy and 1 elective course. They must also complete 16 weeks of experiential learning.

Students must also successfully complete post-admission requirements that are not part-of the predetermined course work. These include certification in CPR and first aid and achievement of 100% on the pharmaceutical calculations exit requirement.

## **3 Degree Level Expectations for the Bachelor of Science in Pharmacy.**

The following section describes how the degree level expectations outlined in the Ontario Council of Academic Vice-Presidents Guidelines are met by students meeting the degree requirements outlined in section 2.2

### **3.1 Depth and Breadth of Knowledge**

The Faculty must meet the Canadian Council for the Accreditation for Pharmacy Programs accreditation standards, which ensure that the academic program provides both depth and breadth of knowledge in pharmacy. Standards for the Academic program are:

The Faculty of Pharmacy should offer an organized program of study intended to prepare its graduates for the general practice of pharmacy. Knowledge, skills, attitudes and values should be achieved that are necessary o the provision of pharmaceutical care in any pharmacy practice. The goals and objectives of the pharmacy curriculum should embrace the scope of contemporary practice responsibilities as well as emerging roles that ensure rational use of drugs in the individualized care of patients. The

curriculum should evolve to meet the needs of the health care system to maintain the accountability of the profession to the individual patient and society. The importance of life-long learning should be reflected as an integral theme of the curriculum.

And

The curriculum should provide the student with the knowledge and activities to develop the skills, values, and attitudes necessary for pharmaceutical care delivery to individual patients and to assure accountability of the profession to society. The various components of the curriculum should be vertically and horizontally integrated. A balance, consistent with the Faculty of Pharmacy's mission, should exist among the four areas of core curriculum: biomedical sciences; pharmaceutical sciences; behavioural, social and administrative sciences; and pharmacy practice.

### **3.2 Knowledge of Methodologies**

The Behavioural, Social and Administrative Core courses contain critical thinking, reading and writing skills as a unique element within this stream of courses. Students having successfully completed these courses will be able to:

Apply the principles of scientific inquiry to make plans to address pharmacy practice issues.

Use the results of research projects and literature to develop plans to effect change in pharmacy practice

Understand and adhere to ethical research principles and

Prepare and defend a research plan.

### **3.3 Application of Knowledge**

The breadth and depth of knowledge of the program is reflected in the four core themes of the program (biomedical sciences, pharmaceutical sciences, behavioural, social and administrative sciences and pharmacy practice). The fifth major theme is that of experiential education. The Experiential component enables our students to apply their knowledge in a clinical environment. The students in the program currently complete 12 hours of experiential learning in the first year of the program, 12 hours in the second year of the program and 16 weeks in the final year of the program. These components of the curriculum allow the student to demonstrate they can apply the knowledge, skills and attitudes that they have developed in the program.

### **3.4 Communication Skills**

The students have to participate in a wide variety of requirements including small group work, seminars, oral examinations, standardized patient interviews, and writing assignments, which demonstrate their ability to communicate and argue effectively through interactions with the teaching faculty. Additionally in the experiential component of the program, students must demonstrate the ability to interact with pharmacists, other health care professionals and the lay public.

### **3.5 Awareness of Limits of Knowledge**

The core educators of the curriculum are practice based pharmacists and or pharmaceutical scientists who understand the future trends and are leading change in the profession and or field. Students are taught to appreciate uncertainties, ambiguities and limitations of knowledge.

### **3.6 Autonomy and Professional Capacity**

Students from the first year of pharmacy begin to understand what it is to be a professional. First year students are inducted into the profession through a “White Coat Ceremony” where each student must sign the professional code of conduct. While enrolled in the pharmacy program students must be registered with the Ontario College of Pharmacists. Additionally students are encouraged to be active in the Undergraduate Pharmacy Student Society and the Canadian Association of Pharmacy Students.

Graduates from the program must register with a provincial regulatory authority to be able to practice pharmacy in Canada and they need to be able to meet the “Professional Competencies for Canadian Pharmacists at Entry to Practice” established by the National Association of Pharmacy Regulatory Authorities.

### **4.0 Implementation**

The faculty through a self-assessment process implements the above degree level expectations, which is required for accreditation by the Canadian Council for the Accreditation of Pharmacy Programs. The faculty is currently engaged in a curricular renewal process, based on feedback from our recent accreditation review and to anticipated changes to the educational outcomes developed by the Associations of Faculties of Pharmacy of Canada.