# How Two Librarians Became Co-instructors For a First Year Course



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## Background

In Spring 2014, two librarians co-instructed PHARM 155 "Introduction to Drug Information Fundamentals", a required first year course at the University of Waterloo's School of Pharmacy. Providing students with the skills to effectively find medical and drug information, this course gave students the skills to critically appraise literature to support an evidence-based patient care model. The course was taught to 120 Pharmacy students and was a collaboration between these co-instructors:

- Course coordinator: Kathryn Mercer (KM), MI, PhD Student & Research Assistant,
  School of Pharmacy
- Shannon Gordon (SG), MLIS, Pharmacy Liaison Librarian, Davis Centre Library
- Dr. Dave Edwards (DE), Director, School of Pharmacy

# Significance

The invitation for librarians to be involved with this course was significant because it:

- 1. Is information literacy at the course level
- 2. Moves beyond being a guest lecturer
- 3. Connects with 1st year students
- 4. Markets librarian expertise

"One of the things I struggled with most in my undergrad was research for primary resources. Research would take several hours to complete for a simple topic because, not only was I searching ineffectively, I wasn't even aware I was doing it wrong."

- Student

"...pharmacy students are expected to understand how to find and interpret scientific literature. I see myself using databases in academia to filter useful information in order to obtain the best evidence...In the past, I have relied too heavily on Google and other search engines due to my unfamiliarity with databases."

- Student

"...We should message the importance of academic integrity, particularly among professional students."

- Faculty Member

### Curriculum

Course learning objectives were mapped to the Association of Faculties of Pharmacy of Canada's (AFPC) Educational Outcomes for First Professional Degree Programs in Pharmacy (Entry-to-Practice Pharmacy Programs) in Canada. Twenty-two hours of class time provided eleven 2-hour lectures:

- 3 lectures on critical appraisal, delivered by DE
- 6 lectures on finding medical literature and drug information, including academic integrity and citation best practices, delivered by SG/KM
- 2 lectures for group presentations, monitored and graded by SG/KM



#### Sample lecture topics:

Understanding primary, secondary, and tertiary literature

Making a clinical question searchable via PICO (Patient, Intervention, Comparison, Outcome), and identifying keywords/synonyms

Databases: PubMed, Google Scholar, IPA, EMBASE, CINAHL

Drug information tools: e-Therapeutics, Lexicomp, Natural Standard

Citation best practices of The AMA Manual of Style (10th ed)

Academic integrity issues: plagiarism and excessive collaboration

The value of grey literature

#### Assessment

A combination of assessment tools were used: quizzes, readings, individual written reflection, group presentation, group written reflection, midterm, and final exam. Quizzes and term project were designed to provide hands-on time to explore the resources and concepts covered by the curriculum.

An assessment goal involved balancing the time to grade 120 assignments, and creating Multiple Choice Questions (MCQ) to adequately cover the complex nature of doing research.

GROUP PRESENTATION (10%) VALUE HOW WE ARE MARKING Clinical case scenario 1/1 – group identified clinical case Identify the clinical case scenario that your 1/1—group identified research Research question Identify the research question that your 3/3—group does all 3 you selected (NOT Google Scholar!) 1/1 - group provided demonstration 1/1 - group justified search strategy 1/1—group explained usefulness your research question? 3/3—group does all 3 Search tips What search tips would your group 1/1—group provided search tips recommend to someone using this 1/1—group provided insightful tips 1/1—group provide relevant tips Database ranking 2/2—group does all 2 How did you rank your group's database and Google Scholar? 1/1 – group ranked database 1/1 -group justified ranking 2/2—presentation demonstrates Group's ability to grasp presentation content conscious reflection, is a step beyond simply describing searching 1/1 – finished presentation in timely Ability to present within 10 minutes manner (not rushed) 1/1—presentation was effectively Effective communication communicated

Group project rubric

	Question 1 (2 points)	h
	Which of the following statements is 'Common Knowledge"	
mple quiz question	Stephen Harper is the Prime Minister of Canada.	
	Stephen Harper is the best Prime Minister Canada has ever had.	
	Stephen Harper is the worst Prime Minister Canada has ever had.	
	Stephen Harper led the Conservative Party to win 166 of 308 House of Commons seats in the May 2, 2011 general election	

## The Experience

- Very positive: steep learning curve, but it is definitely doable and worth it!
- Students appreciated receiving content early in program
- Reinforced academic integrity points
- Value of student feedback: "One thing you like, one thing you would change"
- We made the course too easy class average high!
- Bringing in guest speakers was very helpful
- Have been invited to participate in Spring 2015 course