PHM 229H1

PROFESSIONAL PRACTICE II
LABORATORY

COURSE OUTLINE
2011

Course Coordinator: Doris C. Kalamut
Leslie Dan Faculty of Pharmacy
University of Toronto

YEAR: II

COURSE NUMBER: PHM229H1

COURSE TITLE: Professional Practice II Laboratory

REQUIRED: X

COURSE LENGTH: FALL: X YEAR: 2011

HOURS: 27
Lecture: 2
Practical: 25

COURSE COORDINATOR: Doris C. Kalamut (416) 978-0187
doris.kalamut@utoronto.ca
Leslie Dan Faculty of Pharmacy, Room 729
Office Hours by appointment

LABORATORY MANAGER: Ivana Della Penta

LABORATORY ASSISTANT: Laurel Kazor

ADMINISTRATIVE ASSISTANT: Tammy Taylor Deane

TEXTBOOK(S):
Required:
Professional Practice II Laboratory Manual
TELUS FlexiPharm/Assyst Rx-F™ Computer Handbook
Information posted on BlackBoard/portal

PRE-REQUISITES: PHM 129

CO-REQUISITES: PHM 228
CALENDAR DESCRIPTION

The Professional Practice II Laboratory (PPL) course continues to develop principles and skills of pharmacy practice through pre-laboratory discussions, simulated pharmacy practice laboratories, and patient care skills sessions.

A student participates in laboratory sessions to apply the concepts learned in Professional Practice II (PHM228) lectures. A student is encouraged to consult the notes from past lectures (PHM 127 & PHM 128) and current professional practice lectures to clarify issues that are included in the objectives of the laboratory sessions.

The pre-laboratory discussions focus on specific skills and information to be implemented during the laboratory sessions.

The simulated pharmacy practice laboratories allow a student to develop a structured approach to the technical and legal aspects of pharmacy practice by accurately processing prescriptions and preparing elegantly compounded pharmaceutical products that are individualized to meet a patient's needs. A student also participates in Patient Care Skills sessions having prepared the appropriate information to educate a 'patient' about medication available in a specific dosage form, after gathering information from that patient.

It is important that a student is prepared for the laboratory sessions.

COURSE GOALS AND OBJECTIVES

The goal of this course is to further develop the knowledge and skills of a Year 2 pharmacy student in technical abilities of prescription processing, patient care, and compounding dosage forms.

A student who has successfully completed the laboratory portion of this course should be able to:

- portray a professional image and behaviour throughout any interactions with patients, physicians and other health professionals.
- identify the legal requirements needed in gathering patient information required when accepting a written or verbal prescription and understand the rationale for gathering this information.
- apply the Model Standards of Practice and laws governing pharmacy practice in Ontario.
- accurately accept and process written and verbal prescriptions, meeting all legal and technical requirements, for non-narcotic and narcotics medications.
- identify and document potential drug therapy problems (DTPs) in written prescriptions and verbal prescriptions.
- demonstrate an effective system when checking prescriptions for accuracy and appropriateness.
• communicate effectively when entering into a dialogue with a patient and other health care practitioners.
• complete an accurate patient profile by gathering a medication history and documenting other pertinent information.
• provide accurate patient education using a systematic framework.
• solve basic pharmaceutical calculations and processing errors commonly encountered in pharmacy practice.
• apply the Guidelines for Compounding Preparations in conjunction with the Model Standards of Practice.
• demonstrate competency in pharmaceutical calculations for compounded prescriptions.
• produce compounded products that meet standards of practice and are pharmaceutically elegant.
• function efficiently within the dispensary, both independently and within a group.

RATIONALE FOR INCLUSION IN THE CURRICULUM

This course provides a pharmacy student with the opportunity to develop skills required to be technically competent in processing prescriptions, compounding various dosage forms, and effectively and accurately communicating with a patient in order to gather and provide information about medication use during the patient care skills sessions.

Patient education skills that are developed during the patient care sessions will allow a student to develop the knowledge and skills required to provide basic pharmaceutical care which will be further developed in higher level courses.

COURSE FORMAT

Each student is assigned to a laboratory group. The student will work together with the same group members for this laboratory component in the schedule.

There are eight Professional Practice laboratory sessions. Each student will rotate through a Technical Skills and Abilities in Prescription Processing component and a Patient Care Skills component in all 8 PPLs. The Compounding Skills of Prescription Dosage Forms component is included to the last 4 PPLs.

In addition, each student will participate in a final laboratory examination. The final laboratory examination is comprehensive and may include content and skills from any of the eight laboratory sessions.

Laboratory sessions will include material discussed in PHM228H1. The lectures will emphasize important information pertaining to different dosage forms prepared in pharmacy practice and the systematic framework of information to be communicated to the patient. The laboratory will complement these lectures by providing the opportunity to apply the principles discussed in a practical setting.
There are specific objectives for each laboratory session. The student is responsible to read the laboratory objectives, review the complementary lecture material/pre-laboratory readings, to complete any additional 'pre-laboratory' requirements and to view segments of the Compounding Skills and Techniques video and Sterile Preparation video that correspond to a particular compounding laboratory component.

There will be a pre-laboratory discussion/demonstration prior to the technical prescription processing skills/compounding techniques which will be assessed during that session. A quiz will be administered at each Technical Skills and Abilities in Prescription Processing component for a student to determine his/her competency and knowledge of the ‘Top 100 Drugs’, auxiliary label use, calculations, legislation (narcotic & controlled drug, ‘transferred copy’ of a prescription), and signatura & Latin translation.

Although the student will be assessed during each laboratory session, a Facilitator, who is a practicing pharmacist or pharmacy assistant/technician, will be available as a resource, when needed.

Each student is assigned to a GROUP (posted on Blackboard/portal for PHM 229) which will rotate through each laboratory component, according to the posted Laboratory Schedule. Each component of a laboratory session is approximately 65 minutes in length.

CHECK AND FOLLOW THE SCHEDULE CAREFULLY, as a GROUP will complete each component at a different time during the scheduled laboratory sessions.

A student should arrive 5 minutes before the scheduled laboratory start time. It may be possible for a student, who arrives late to the laboratory, to proceed with their assigned group, after meeting with the Course Coordinator. Punctuality is an assessed component of professionalism. The student must not be disruptive to the group members and cannot be given any special consideration or more time than allotted.

A pharmacy student is a representative of the profession of pharmacy. A student is expected to uphold an image consistent with a respected health professional. While in the laboratory, the student should be punctual, respectful and dressed in neat and professional attire that would be expected of a practising pharmacist.

A student must wear a nametag during every laboratory session. A lab coat/jacket is recommended to be worn, especially for protection of clothing during the compounding laboratory.

The student should inform the Course Coordinator and each laboratory Facilitator of any medication allergies.

Laptops and cell phones are to be used only to access pharmacy-related reference sites.
No phone calls, texting, messaging or non-course related activity is permitted while in the Professional Practice Laboratory.

Food and drinks are strictly prohibited in the laboratory.

The laboratory work area and equipment must be clean and maintained after each laboratory session.

A student in the Technical Skills and Abilities in Prescription Processing session will meet at their assigned time in the Herbert R. Binder/Shoppers Drug Mart Professional Practice Laboratory, on the seventh floor of the Leslie Dan Faculty of Pharmacy.

Each ‘simulated dispensary’ is equipped with: TELUS FlexiPharm/Assyst Rx-F™ computer systems/printers with paper for prescription labels and receipts, telephone, and auxiliary labels.

A student is responsible for a basic understanding of this computer system and is encouraged to practise on the computer, whenever available. A computer manual is available to each student.

The professional fee for each pharmacy has been arbitrarily set at $10.00 and is pre-entered into the computer. Each ‘patient’ will pay ‘cash’ for a prescription.

One set of pharmacy reference texts, as in a ‘pharmacy reference library’, is located in the glass cupboards in EACH dispensary. A student may bring any reference texts to the laboratory for use during the session. The computer systems in the PPL have internet capabilities to access drug information.

A student in the Patient Care Skills session will meet at their assigned time in the assigned seminar room of the Herbert R. Binder/Shoppers Drug Mart Professional Practice Laboratory, on the seventh floor of the Leslie Dan Faculty of Pharmacy.

The Pharmacist Facilitator (PF) for each group of students will supply a patient profile form, MedsCheck/medication assessment form along with the prescription and medication product to each student to use for demonstration during the patient education session; as well as, any relevant information for the ‘patient’.

A student in the Compounding Skills of Prescription Dosage Forms laboratory session will meet at the assigned time in the Patheon Pharmaceutics Teaching Laboratory, on the eighth floor of the Leslie Dan Faculty of Pharmacy.

The compounding laboratory is supplied with equipment, which may be shared, including prescription balances (torsion/electronic), weights, mortars and pestles, graduated cylinders, ointment pads and glass slabs, spatulas, stirring rods, etc.
Each compounding session has been structured to meet specific objectives. Upon completion of the compounded dosage form and assessment by a Facilitator, the student is responsible to clean the equipment and workspace and to prepare the area for the next group of students.

A student may reserve a posted scheduled time (TBD) for practise any component in the PPL.

**STUDENT EVALUATION PROCEDURES**

The assessment system used in the Professional Practice Laboratory course consists of three levels: ‘HONOURS’ (H), ‘PASS’ (P), and ‘FAIL’ (FL). A requirement toward the successful completion of the course is that a student must attend ALL Professional Practice Laboratory sessions AND the Final Laboratory Examination.

A student will have ‘PASSED’ the course after successful completion of the required skills components and activities. If NOT successful, the student will be required to complete an additional laboratory in the supplemental examination period, if so deemed by the Faculty of Pharmacy Board of Examiners.

A student will be assessed in the prescription processing, compounding of dosage forms and Patient Care Skills sessions. The assessment forms are designed to list the assessment criteria for each component with space provided for written feedback by the Facilitator. The criteria listed outlines the skills and abilities that the student should demonstrate during that activity. The feedback, written by the Facilitator, should assist the student to learn from the experience and to improve specific skills in the future.

ASSESSMENT FORM samples are provided in the manual for Technical Skills and Abilities in Prescription Processing and for Patient Care Skills. The assessment criterion is included on the bottom of the Master Formula Record of each Compounded Prescription Dosage Form included in the manual.

**Term Work**

The term work consists of 8 professional practice laboratories: 8 Technical Skills and Abilities in Prescription Processing sessions, 8 Patient Care Skills sessions and 4 Compounding Skills of Prescription Dosage Forms sessions.

**Technical Skills and Abilities in Prescription Processing:**

These elements are related to processing prescriptions which includes meeting legal requirements, labelling procedures, pharmacy calculations, adherence to professional standards and techniques, etc. This also includes identifying, resolving and documenting potential drug therapy problems (DTPs)/medication prescribing errors (MPEs), communication (telephone) skills, professional and ethical behaviour, preparation of prescriptions, efficiency, organization and neatness of work.
A prescription may be for any scheduled product (including Schedule F, G or N). Processing refills and prescription transfers and copies may also be conducted.

A student is assessed on his/her ability to accept, identify, resolve and document any potential drug therapy problems (DTPs) or medication prescribing errors (MPEs) and process 8 written prescriptions (Rx) and 8 verbal prescriptions AND assess 8 pairs of dispensed prescriptions for accuracy.

A quiz will be administered at each Technical Skills and Abilities in Prescription Processing component for a student to determine his/her competency and knowledge of the ‘Top 100 Drugs’, auxiliary label use, calculations, legislation (narco tic & controlled drug, ‘transferred copy’ of a prescription), and signatura & Latin translation.

**Patient Care Skills:**

These elements are related to the student gathering relevant information from a ‘patient’ and providing appropriate information to educate that ‘patient’ about medication available in a specific dosage form. This also includes conducting a MedsCheck/medication assessment, communication skills, professional and ethical behaviour, efficiency, and organization in gathering and disseminating information.

A student is assessed on his/her ability to gather relevant information from a ‘patient’ and provide appropriate information to educate that ‘patient’ about 8 medications available in a specific dosage form from a selection of 20 prescription products. As well as, conduct 1 Medscheck/medication assessment.

**Compounding Skills of Prescription Dosage Forms:**

These elements are related to compounding prescriptions which includes meeting legal requirements, labelling procedures, pharmacy calculations, adherence to professional standards and techniques, etc. This also includes professional and ethical behaviour, preparation of the dosage form, efficiency, organization and neatness of work.

A student is assessed on his/her ability to prepare 6 products of varying dosage forms including topical products, pediatric dosage forms, capsules as a specialty dosage form, and sterile preparations.

An ‘HONOURS’, ‘PASS’, or ‘FAIL’ is assigned to each component in each laboratory.

To ‘PASS’ the term work portion of the course, a student must successfully ‘PASS’ or receive ‘HONOURS’ in each of the professional practice laboratory components assessed during the eight laboratories.
Technical Skills and Abilities in Prescription Processing Component:

Verbal Rxs: ‘PASS’ = accurately accepted & processed 5/8 Rxs
   ‘HONOURS’ = accurately accepted & processed 6-8/8 Rxs (no ‘FAILS’)

Written Rxs: ‘PASS’ = accurately accepted & processed 5/8 Rxs
   ‘HONOURS’ = accurately accepted & processed 6-8/8 Rxs (no ‘FAILS’)

Prescription-checking for Accuracy:

   ‘PASS’ = 5/8 prescription ‘sets’ accurately assessed
   ‘HONOURS’ = 6-8/8 prescription ‘sets’ accurately assessed (no ‘FAILS’)

Patient Care Skills Component:

   ‘PASS’ = accurately gather information, educate a patient about the medication, perform MedsCheck/ medication assessment in 5/8 Rxs
   ‘HONOURS’ = accurately gather information, educate a patient about the medication, perform MedsCheck/ medication assessment in 6-8/8 Rxs (no ‘FAILS’)

Compounded Skills of Prescription Dosage Forms Component:

   ‘PASS’ = 4/6 accurately formulated Rxs
   ‘HONOURS’ = 5-6/6 accurately formulated Rxs (no ‘FAILS’)

If a student ‘PASSES’ less than 5/8 Rx components in ANY of the Technical Skills or Patient Care Skills components OR ‘PASSES’ less than 4/6 compounded prescriptions, the student has ‘FAILED’ the term work.

The grades and feedback that the student receives is a guide in preparing for the final examination.

The final examination in this course is a skills-based practical exam. The student is expected to demonstrate all of the skills and knowledge acquired during the course.

At the end of the course, the student’s overall Course Grade will be determined from both the Term Work AND the Final Examination grades.

Laboratory Examination

The laboratory examination will consist of processing Verbal Prescription(s), Written Prescription(s), assessing Dispensed Prescriptions for Accuracy, conducting Patient Care Skills, and Compounding Skills of Prescription Dosage Form(s), as in the term. A student must independently demonstrate competency in a minimum of three of the five technical/compounded prescription components (5/5 is considered ‘HONOURS’ with no ‘FAILS’) AND ‘PASS’ the Patient Care Skills component to ‘PASS’ the Laboratory Examination.
**Course Grade**

The Course Grade is based on the term work and the laboratory exam as follows:

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<tr>
<th>Term Work</th>
<th>Laboratory Examination</th>
<th>Course Grade</th>
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**no FAILED assessments**

*dependent on review of the student’s Term Work and Laboratory Examination by the Course Coordinator

**Missed Examinations or Assignments**

Laboratories are **COMPULSORY**. A student who misses a laboratory component or session must submit a petition to the Faculty Registrar (within 7 calendar days) as outlined in the Faculty Calendar (**Missed Examinations or Assignments**). If the petition is deemed valid by the Faculty, the student will be given an opportunity to complete a make-up session as follows:

- for a **MISSED** session of Technical Pharmacy Skills in Prescription Processing, Patient Care Skills or Compounding Skills of Prescription Dosage Forms, the make-up session will be scheduled in November, after all the laboratory sessions are completed. In the absence of a valid petition, a grade of 'FAIL' will be assigned to the missed laboratory component or session.
A student who is given permission to attend a make-up examination or missed laboratory session must submit a ‘Special Examination’ fee of $70 per examination or laboratory session to the Registrar’s office. When a student receives information regarding the date and time of the make-up examination or laboratory session, s/he will also receive fee payment instructions and deadline information. Failure to make arrangements for paying this fee by the deadline provided will result in the loss of privilege to attend the make-up examination or laboratory session, and a grade of ‘FAIL’ will be assigned for the missed examination or laboratory session.