Fall 9-1-2006

PHA 100T.01: Introduction to Pharmacy Practice

Mary B. McHugh

*University of Montana - Missoula*, mary.mchugh@umontana.edu

Follow this and additional works at: [https://scholarworks.umt.edu/syllabi](https://scholarworks.umt.edu/syllabi)

Let us know how access to this document benefits you.

**Recommended Citation**


[https://scholarworks.umt.edu/syllabi/10679](https://scholarworks.umt.edu/syllabi/10679)

This Syllabus is brought to you for free and open access by the Course Syllabi at ScholarWorks at University of Montana. It has been accepted for inclusion in Syllabi by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.
Course number and title: PHA 100T “Introduction to Pharmacy Practice”

Date revised: 8/22/06

Contact hours per semester: [For administrative purposes only]
   Lecture hours per week: 3
   Lab hours per week: 0
   Clinical/internship hours per week: 0

Meeting schedule: TR 9:10-10:30 AM in HB07

Instructor: Mary McHugh, R.Ph.
E-mail: mary.mchugh@umontana.edu
Phone: (406) 243-7813
Office: AD04B, (Administration building)
Office hours: MWF 11:10 to 1:30
   T Th 12:10 to 1:30

Required texts: 1) Pharmacy Practice for Technicians (3rd edition) by Ballington & Anderson
               2) A Drug Quick Reference Pocket Guide (will be provided)

Optional texts: Pharmacy Drug Cards (Siglar & Flander)

Prerequisites: Enrollment in the Pharmacy Technician Program and successful completion of the following courses: WTS100S or 115S, CRT100, MAT100, SCN119N, MED154T.

General course description:
Pharmacy technicians must understand the background of the profession, as well as how the profession has evolved into what it is today. They must also understand how they fit into the profession by having a clear understanding of their duties and also the duties of the pharmacist. Technicians must have some idea as to what the future holds for the profession in order to be prepared for it. This course is a general overview of the pharmacy “world”, and begins to acquaint the student with the special “language” of it.

The material in this course will include: the history of pharmacy, personnel relating to pharmaceutical services, ethical standards of the occupation, introduction to federal and state laws regulating pharmacy practice with an emphasis on Montana State Pharmacy Law and administrative rules regulating pharmacy technicians, pharmacy abbreviation, interpreting prescriptions, the preparation, maintenance, and storage of pharmacy records, confidentiality and HIPAA, basic concepts of computer operations with emphasis on software designed for use in pharmacy, and an introduction to packaging, dosage forms and delivery systems of different drug products. Students will also increase their writing and communication skills with assignments and presentations. Students will learn how to obtain necessary information from a variety of sources.
Student performance outcomes- Upon completion of this course, the student will be able to:
1. Maintain a personal image appropriate for the profession of pharmacy. Understand the importance of confidentiality, accountability, and professionalism.
2. Explain what duties are acceptable for the technician to perform and those which must be performed by a pharmacist. Be able to distinguish appropriate technician duties from pharmacist duties, and understand the importance of role definition.
3. Appreciate the importance and current status of technician certification in Montana and other states. Know the differences between certification, licensure, and registration.
4. Be familiar with the history of the pharmacy profession, and understand the ethics involved with the duties of a pharmacist and pharmacy technician.
5. Identify the various pharmacy practice settings and be familiar with how technicians are utilized in these settings, including the emerging pharmaceutical care movement.
6. Assist the pharmacist in compliance with Federal and State laws pertaining to the practice of pharmacy, including the Controlled Substances Act. Know the various regulatory agencies which oversee compliance with the law.
7. Relate the basic concept of liability to the duties of the technician. Explain how medication errors occur and what can be done to prevent them. Describe what is meant by quality assurance.
8. Be familiar with the various pharmacy professional organizations and what segment each one represents, and how organizations are currently viewing technician practice.
9. Utilize resource books, manuals, and journals and understand their importance in gathering pertinent information and in staying current with changes in pharmacy practice.
10. Know the various medication dosage forms, routes of administration, common pharmacy terminology, and abbreviations for medical terms.
11. Receive prescription/medication orders, interpret correctly, and screen for completeness. Understand the importance of obtaining patient data and history.
12. Communicate clearly orally and in writing. Efficiently solve problems commonly encountered in one’s own words. Establish and maintain effective interpersonal working relationships with other members of the health care team and with patients.
13. Understand the process of research, development and marketing of drugs, and relate those concepts to the cost of medical care.
14. Be familiar with the Top 100 drugs, and begin to relate the generic to the brand-name, and vice-versa. Know the basic use of each of those drugs, or where to locate that information.
15. Utilize knowledge gained in this course as the basis for further study in Institutional and Community Pharmacy.

How various assessment methods will be used to improve the course:
- Class discussions and review sessions will help to identify problem areas in student comprehension of materials. Relating material to clinical experiences will be an important part of these discussions.
- Post-test review in class will help to ensure understanding of material.
- Test question failure rate will be analyzed to improve test content.
- Advising sessions with each individual student will provide feedback as well as address problem areas for each particular student. This will include a flow sheet to enable the student to track their personal progress and achievement of outcomes in the program.
- Video presentations will be assessed by students for their opinions as to relevance and useful content.
- Student evaluations at the end of the course will help to identify problem areas, which will be revised accordingly.
• Classroom visitation by the department chairperson will evaluate the instructor’s performance and provide suggestions for improvement if necessary.

**Student performance assessment and grading procedures:**
The grading scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
</tr>
<tr>
<td>B</td>
<td>80-89%</td>
</tr>
<tr>
<td>C</td>
<td>70-79%</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
</tr>
<tr>
<td>F</td>
<td>below 60%</td>
</tr>
</tbody>
</table>

Students in the Pharmacy Technology program must have a “B” or better final grade in all pharmacy classes in order to progress within the program. A “C” or better is needed in all non-pharmacy courses.

**Course grades will be based on the following:**
- 40% of the grade will be from the unit tests.
- 20% of grade will be from a short reference paper and presentation of the material to the class.
- 20% of grade will be assignments
- 10% of the grade will be the “Top 200” quizzes
- 10% of grade will be the final exam.

Quiz and exam questions will be based on lecture content and reading assignments including information from handouts, videos, slides, guest speakers, etc. *Please consider attendance mandatory. After five (5) absences, the student will be required to meet with the instructor to discuss the feasibility of their continuation in the program and the student’s grade will automatically be dropped by 5%.* There will be no make up points if you miss in-class assignments or quizzes, therefore, it is in your best interest to make every effort to attend class. Much of the course content will come from lecture material rather than the textbook, and discussion and interaction with the class are also important.

**Tests must not be missed.** If you have a legitimate reason for missing the test, let me know ASAP. If I feel your excuse is legitimate, you may take a make-up exam at the ASC center. The student is responsible for calling the ASC center to reserve a make-up test time. At least 48-hours advance notice is required.

**Assignment policy: Assignments must be turned in on-time... NO EXCEPTIONS!**

**Students must have access to the internet (computer access available on campus). Many notes and assignments must be accessed through Blackboard On-Line Learning. E-mails regarding information about this course will be sent to the students University of Montana e-mail address. Please be familiar with this e-mail system and check it regularly.**

**Academic dishonesty:** Students found guilty of cheating or helping others to cheat will be given an F as their final grade in the course without exception. No second chances will be allowed due to the significance of such dishonest behavior in a health oriented profession, and the possible dire consequences such dishonest behavior could have on the public, the profession of pharmacy, and our school, if allowed to continue.

**Students with disabilities:** Eligible students with disabilities will receive appropriate accommodations in this course provided it is requested in a timely manner. If you are a student...
with disabilities, please speak with me and be prepared to provide a letter from your DSS coordinator

**COURSE OUTLINE** (Subject to change)

**Unit One: “Principles of Pharmacy Practice”**
The student will understand what is required in the profession of pharmacy, what the technician’s role is, as well as the pharmacist’s, and have a basic knowledge of the history of the profession. The student will understand the history of pharmacy law and the necessity for systems of drug control, including state and federal regulations as they pertain to pharmacy and the pharmacy technician. The student will also be introduced to different dosage forms, delivery systems, and routes of administration.

**Reading:** Chapters 1-4, Pharmacy Practice for Technicians (Ballington/Anderson)
Chapter 1 in “Pharmacology” text starting at the bottom of pg. 10 to end of ch.
MT State Board of Pharmacy Administrative Rules booklet (provided)

**Lectures/activities will include:**
- Video presentations on technician practice and pharmacy practice
- History of pharmacy slide presentation
- Role definitions – pharmacists vs. technicians – and duties of each
- Training and educational options (“The ASHP Standard – handout)
- Certification vs. registration vs. licensure
- Work settings, salary expectations, specialized technician roles
- Pharmacy law history
- Professional and Legal Considerations (Guest speaker, pending availability)
- Drug Testing and approval
- The necessity of drug diversion control and the controlled substance act
- “Shadowing” a pharmacy technician (assignment)

**Test #1 date:** Thursday, Sept. 21 (Subject to change)

**Unit 2: “Community Pharmacy”** The student will become familiar with pharmacy abbreviations and their use, and will be able to interpret prescription information, explain basic procedures for receiving, reviewing, and filling prescriptions, as well as the legal and professional requirements involved. The student will also become familiar with third-party administration, patient profiles, Medicaid and Medicare, inventory and pricing. Basic procedures and equipment used in extemporaneous compounding will also be discussed.

**Reading:** Appendix A and chapters 6-8 in “Pharmacy Practice for Technicians”.

**Lectures/activities will include:**
- Career Fair attendance (Wed. Sept. 27)
- Pharmacy abbreviations
- The elements of a prescription and required information
- Interpreting the prescription – common abbreviations
- “Real” prescription examples
- Insurance coverage (PBMs, third-party, Medicaid, Medicare)
- Guest speaker from community pharmacy (pending availability)
- Field trip: Pharmacy School labs – t.b.a.

**Test #2 date:** Thursday, October 12th (Subject to change)
Unit 3: “Institutional Pharmacy”  The student will understand the fundamental operations of an institutional pharmacy, including general organization, drug distribution systems, automation, drug repackaging, medication orders, and hospital committees. Safety in handling of hazardous materials will be discussed. The student will also become familiar with the definitions of universal precautions, sterilization and aseptic technique. The student will be introduced to equipment and technique used when admixing sterile products.

Reading: Chapters 9-11 in “Pharmacy Practice for Technicians”.
Lectures/activities will include:
- Hospital pharmacy overview
- Inpatient drug distribution systems
- Automation
- Universal precautions
- Aseptic technique
- Handling of hazardous materials
- Preparing IV products
- USP Chapter 797
- Guest speaker from institutional pharmacy (pending availability)

Test #3 date: Thursday, November 2\textsuperscript{nd} (Subject to change)

Unit 4: “Professionalism in the Pharmacy”  The student will understand the extent and effect of medication errors, what contributes to them and how they can be prevented. The student will also become familiar with and able to identify reference sources such as books and the internet, as well as professional organizations that are available to them. Communication skills are highly important in pharmacy practice, and the student will become more comfortable with public communication as well as written skills. They will also understand why ethics are important in this profession, and begin to recognize and internalize their own set of ethics for practical and personal use.

Reading: Chapters 12-14 – “Pharmacy Practice for Technicians”
Lectures/Activities to include:
- Medication errors and prevention
- HIPAA requirements pertaining to confidentiality
- Ethical Considerations for Technicians
- Pharmacy reference books and journals
- Internet practice exercises
- Communication exercises
- Videos on speaking, communication, telephone, and listening skills.

Reference paper due during this unit (Tuesday, November 22\textsuperscript{nd})
Test #4 date: Thursday, November 30\textsuperscript{th} (Subject to change)

Student presentations: December 5\textsuperscript{th} and 7\textsuperscript{th} – individual dates TBA

Final exam week 12/11 – 12/15. Exact date/time of final TBA.

Quizzes: There will be a quiz every Tuesday based on the “Top 100 Drugs.” If the quiz falls on a test day, then the quiz will be moved to Thursday for that week. There will be no make-up quizzes, but you will be able to drop your lowest score.