Course Outline

PHRM1101
Pharmacy Theory
Fall 2023 - Current

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PHRM1101 Pharmacy Theory

COURSE DESCRIPTION

Learners will be introduced to fundamental pharmacy theory including pharmaceutical dosage forms, routes of administration, drug stability and storage, the dispensing process, interpretation of prescription information, auxiliary label selection, and interpersonal communication. Pharmacy practice simulations will facilitate development of communication skills.

REQUISITES	None
EQUIVALENTS	None
CREDITS	3
HOURS	45
ELIGIBLE FOR PLAR	No
ZERO TEXTBOOK COST	Yes

COURSE LEARNING OUTCOMES

Bow Valley College is committed to ensuring our graduates can demonstrate their abilities in key areas that will make them effective citizens and encourage their development as lifelong learners. In addition to the discipline-specific skills that learners acquire in their programs, the College has identified ten learning outcomes.

College-Wide Outcomes:

1. Communication
2. Thinking Skills
3. Numeracy and Financial Literacy
4. Working with Others
5. Digital Literacy
6. Positive Attitudes and Behaviours
7. Continuous Learning
8. Health and Wellness Awareness
9. Citizenship and Intercultural Competence
10. Environmental Sustainability

#	COURSE LEARNING OUTCOME(S)	COLLEGE WIDE OUTCOMES SUPPORTED
1	Compare various pharmaceutical dosage forms and routes of drug administration.	2
2	Interpret prescription information.	2, 3
3	Describe the dispensing process and related responsibilities of the pharmacy technician.	1, 2, 8
4	Apply concepts of stability to the handling and storage of drugs.	2, 8
5	Select appropriate auxiliary labels for medications.	2, 8
6	Communicate effectively with diverse patients, caregivers, colleagues, and other health care providers in the provision of patient-centred care.	1, 4, 6, 9

COURSE MODULES AND SCHEDULE

Course schedule subject to change, depending on delivery mode and term of study. For exact dates, please consult the Course Offering Information in Brightspace.

WEEK/HOURS	MODULES
Week 1	Routes of Drug Administration & Dosage Forms
Week 2	Routes of Drug Administration & Dosage Forms
Week 3	Interpreting Prescriptions
Week 4	The Dispensing Process
Week 5	The Dispensing Process
Week 6	Drug Stability and Storage
Week 7	Review
Week 8	Midterm Exam
Week 9	Auxiliary Labels
Week 10	Auxiliary Labels
Week 11	Communication Skills
Week 12	Communication Skills
Week 13	Communication Skills
Week 14	Review
Week 15	Final Exam

ASSESSMENT

COURSE LEARNING OUTCOME(S)	ASSESSMENT	WEIGHT
1, 2, 3, 4, 5, 6	Assignments	35%
1, 2, 3, 4	Midterm Exam	25%
1, 2, 3, 4, 5, 6	Final Exam	40%

Important: For details on each assignment and exam, please see the Course Offering Information.

PERFORMANCE STANDARDS

A minimum grade of D is required to pass this course. However, a program may require a higher grade in this course to progress in the program or to meet specific program completion requirements.

The Pharmacy Technician Program requires a minimum grade of C in this course to progress in the program.

Please consult with the program area or contact the program chair for further details. A minimum Grade Point Average of 2.0 is required for graduation.

GRADING SCHEME

Grade	Percentage	Grade Point	Description
A+	95-100	4.0	Exceptional: superior knowledge of subject matter
A	90-94	4.0	Excellent: outstanding knowledge of subject matter
A-	85-89	3.67	
B+	80-84	3.33	
B	75-79	3.0	Very Good: knowledge of subject matter generally mastered
B-	70-74	2.67	
C+	67-69	2.33	

C	64-66	2.0	Satisfactory/Acceptable: knowledge of subject matter adequately mastered
C-	60-63	1.67	
D+	57-59	1.33	
D	50-56	1.0	Minimal Pass
F	Less than 50	0.0	Fail: an unsatisfactory performance

REQUIRED LEARNING RESOURCES

Bow Valley College. (current year). *PHRM1101 Pharmacy theory course package.*

Bow Valley College. (current year). *PHRM1101 Pharmacy theory activity booklet*.

Canadian Pharmacists Association. *e-CPS*. Retrieved from http://www.e-therapeutics.ca/. BVC access provided.

Additional learning resources may be found in the Course Offering Information or in Brightspace.

ADDITIONAL INFORMATION

NAPRA Competencies:

1.1 Practise within legal requirements.

1.1.1 Apply legal requirements to practice, including federal and provincial/territorial legislation, policies, by-laws, and standards.

1.1.3 Apply federal and provincial/territorial privacy legislation to the collection, use, storage, disclosure and destruction of personal health information.

1.2 Uphold ethical principles.

1.2.1 Apply the principles of professional codes of ethics.

1.3 Manage actual and potential illegal, unethical, or unprofessional actions or situations in practice.

1.4 Apply principles of professionalism.

1.4.1 Apply principles of self-regulation.

1.4.2 Accept responsibility and accountability for own actions and decisions.

1.4.3 Seek guidance when uncertain about own knowledge, skills, abilities, and scope of practice.

1.4.4 Apply principles of continuing professional development including assessing own learning needs and developing a plan to meet these needs.

1.4.6 Protect the privacy and confidentiality of the patient.

1.4.8 Describe the Canadian health care system and the role of health professionals within it.

1.5 Document activities of practice in compliance with federal and provincial/territorial legislation, standards and policies.

2.1.1 Establish and maintain rapport by using effective communication skills.

2.1.2 Demonstrate a caring, empathetic, and professional attitude.

2.1.3 Determine and acknowledge the patient's needs, values and desired level of care.

2.2 Obtain patient information for pharmacist review.

2.2.1 Gather information from the patient using appropriate interview techniques, including active listening.

2.2.6 Organize, reconcile and record the patient's information.

2.3.1 Identify patient needs related to issues such as dosage forms, special packaging or labelling.

2.3.4 Communicate relevant information and identified concerns to the pharmacist in a clear, concise and timely manner.

3.1 Receive, interpret and process a prescription.

3.1.1 Determine the validity, clarity, completeness and authenticity of the prescription and resolve

concerns in collaboration with the pharmacist.

3.1.4 Interpret numerals, symbols, measurement systems and Latin abbreviations.

3.1.5 Perform pharmaceutical calculations.

3.1.7 Process the adjudication for payment of prescriptions and other pharmacy services using knowledge of third-party payer policies and formularies.

3.2 Prepare products for dispensing.

3.2.1 Select appropriate products by applying knowledge of brand and generic names, dosages, and

dosage forms.

3.2.2 Apply drug interchangeability principles in accordance with applicable formularies, policies or legislation.

3.2.3 Verify the integrity of a product by considering stability, and, where applicable, sterility, including checking expiry dates, physical appearance, and odour.

3.2.5 Package products in a suitable container to maintain product integrity, stability, and, where

applicable, sterility.

3.2.6 Use packaging that is safe and appropriate for the patient, including pre-packaging, multi-dose or unit dose packaging and child-resistant vials.

3.2.7 Label products according to legislative requirements, best safety practices, established protocols

and patient-specific needs.

3.3 Prepare and compound non-sterile and sterile products according to recognized guidelines and

standards of practice.

3.4 Verify the technical aspects of the prescription to ensure accuracy and quality of products.

3.5 Collaborate with the pharmacist in the release of the product.

4.1.2 Supervise pharmacy support personnel so that accepted standards are met.

4.1.3 Use and maintain automation and other technology to enhance safety, efficacy and efficiency in the practice setting.

4.2.1 Apply inventory and formulary management systems and strategies that incorporate best

practices, including new technologies.

4.2.2 Prepare and place orders for stock and supplies, using appropriate technology, from licensed and legitimate sources.

4.2.3 Identify issues with the drug supply chain, including drug shortages and drug recalls, and collaborate with the pharmacist to resolve these issues.

4.2.4 Return or properly dispose of recalled, expired and unusable products.

5.1.1 Identify and inform the pharmacist of socio-economic, cultural, environmental and other factors

that are barriers to, or facilitators of, health and wellness for the patient.

5.3.2 Identify and minimize the risk of disease transmission from the pharmacy environment.

6.1.2 Use a variety of retrieval techniques to access reliable and appropriate information, including evidence-based information when possible.

6.2 Apply relevant information to practice.

6.2.1 Gather new information, including evidence-based information when possible, that may be applicable to practice.

7.1 Establish and maintain effective communication skills.

7.1.1 Demonstrate proficiency in written and verbal English or French.

7.1.2 Demonstrate appropriate verbal and non-verbal communication skills, including listening skills.

7.1.6 Communicate with sensitivity, respect and empathy.

7.2.1 Use communication techniques that maximize safety and understanding, including repeating back verbal orders, using recognized terminology and avoiding unnecessary or unsafe abbreviations.

7.2.2 Record and store information in a consistent manner for efficient access and retrieval by relevant personnel.

7.2.3 Select appropriate technology to facilitate communication.

8.1.1 Identify potential collaborators with whom to initiate ongoing professional relationships.

8.1.2 Collaborate with other parties in the relationship to define the roles and responsibilities of each party.

8.4 Accept referrals from and make referrals to the pharmacist.

9.1 Contribute to a culture of patient safety.

9.1.1 Apply principles of patient safety to improve practice.

9.1.3 Share information about problems, resolutions, system changes and lessons learned with the workplace team.

9.2 Contribute to continuous quality improvement and risk management activities related to the drug distribution system.

9.2.1 Apply principles of continuous quality improvement to practice.

9.2.2 Apply principles of risk management to practice by anticipating, recognizing and managing

situations that place the patient at risk.

9.2.3 Identify the occurrence of a medication incident or close call and respond effectively to mitigate harm and prevent reoccurrence.

9.2.4 Identify high-alert drugs and high-risk processes in order to respond effectively.

9.3 Ensure the quality, safety and integrity of products.

9.3.1 Maintain the cleanliness, functionality and integrity of compounding, packaging, dispensing, and

storage equipment.

9.3.2 Ensure that products are stored and transported under the conditions required to maintain

product quality, safety and integrity, including cold chain management.

CPTEA Educational Outcomes:

6.3 Apply knowledge fundamental to the pharmacy technician role in daily practice.

Additional information may be found in the Course Offering Information or in Brightspace.

ACADEMIC ACCOMMODATIONS

Learners with a disability (learning, physical, and/or mental health) may qualify for academic and exam accommodations. For more information, or to apply for accommodations, learners should make an appointment with Accessibility Services in the Learner Success Services (LSS) Department. Accessibility Services can also assist learners who may be struggling with learning but do not have a formal diagnosis. To make an appointment visit LSS on the first floor of the south campus or call 403-410-1440. It is the learner's responsibility to contact Accessibility Services and request academic accommodations. For more information, please visit our website at http://www.bowvalleycollege.ca/accessibility.

INSTITUTIONAL POLICIES

Bow Valley College is committed to the highest standards of academic integrity and honesty. Learners are urged to become familiar with and uphold the following policies: Academic Integrity (500-1-7), Learner Code of Conduct, Procedures and Guidelines (500-1-1), Learner Appeals (500-1-12), Attendance (500-1-10), Grading (500-1-6), Academic Continuance and Graduation (500-1-5), and Electronic Communications (300-

2-13). Audio or video recording of lectures, labs, seminars, or any other teaching and learning environment by learners is allowed only with consent of the instructor as part of an approved accommodation plan. Recorded material is to be used solely for personal study and is not being used or distributed without prior written consent from the instructor.

Turnitin:

Students may be required to submit their course work to Turnitin, a third-party service provider engaged by BVC. Turnitin identifies plagiarism by checking databases of electronic books and articles, archived webpages, and previously submitted student papers. Students acknowledge that any course work or essays submitted to Turnitin will be included as source documents in the Turnitin.com reference database, where it will be used solely to detect plagiarism. The terms that apply to a student's use of Turnitin are described on Turnitin.com.

Online Exam Proctoring:

Examinations for this course may require proctoring through an online proctoring service. Online proctoring enables online exam taking within a controlled and monitored environment, thereby enhancing academic integrity. Online proctoring may occur through a variety of methods, including but not limited to:

a. live online proctoring where a remote invigilator authenticates identity and observes completion of an exam using specialized software and recordings;
b. automated proctoring where the exam session is recorded and AI (artificial intelligence) analyzed;
c. browser lockdown that limits access to other applications, websites, copying, printing, screen capture and other functions; or
d. a combination of both live/automated proctoring and browser lockdown.

Course instructors will review recordings, analyses, and data obtained through online proctoring for academic integrity infractions. It is the student's responsibility to meet the technical, software, location, and identity verification requirements necessary to enable online proctoring.

Further details of these policies are available in the Academic Calendar and on the Bow Valley College website, bowvalleycollege.ca.

Learners are encouraged to keep a copy of this course outline for future reference.

Collection of Personal Information:

This course, including your image and voice, may be recorded and made available to you and other students taking the course section. By attending the class(es) online or in person, you consent to the collection of your personal information. If you do not wish to be recorded, please contact your instructor before starting the course/class to discuss alternative arrangements.

You may use the recordings only for educational purposes and you must not copy, share, or use the recordings for any other purpose without the instructor's express permission.

Your personal information is collected in accordance with section 33(c) of the Freedom of Information and

Protection of Privacy Act (Alberta) to deliver academic programming, support learner flexibility, promote universal design for learning principles, and for purposes consistent with the course activities and outcomes. If you have any questions about the collection, disclosure, use, or protection of this information, please contact the College's Access and Privacy Officer at foip@bowvalleycollege.ca.