

# **Pharmacotherapeutics in Nursing**

## **Winter 2023**

**Instructors: Kayla Hayter & Julie Lyon**

**Number of credits: 3 credits**

**Course Hours:**

Theory (Lecture A): 45 hours

**PHARM 130: PHARMACOTHERAPEUTICS IN NURSING \*** Semester II

PHARM 130 focuses on the mechanisms of action of drugs, their therapeutic uses and side-effect profile. General principles related to drug absorption, distribution, metabolism, and excretion will be addressed. The nursing role in promoting optimal therapeutic regimens and in the management of side/adverse effects will be included.

The course begins with an introduction to drug classification and regulation – from discovery to the patient. The foundations of pharmacodynamic and pharmacokinetic principles will be introduced. Four fundamental domains of drug movement and modifications will be studied: drug absorption, distribution, metabolism, and excretion (i.e., pharmacokinetics).

To illustrate how the principles involved in pharmacotherapeutics need to be incorporated into professional nursing practice; examples of prototypic drugs from each drug class will be used.

Brief scenarios will be used to contextualize pharmacology within the clinical setting. Safe, evidence-based practice will be emphasized.

**Instructor**

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**Office Hours**

By appointment

**Required Resources****Textbook title, author(s), edition**

Adams, M. P., Urban, C. Q., El-Hussein, M., Osuji, J., & King, S. L. (2020). *Pharmacology for nurses: A pathophysiologic approach*. (Cdn. 3rd ed.) Toronto, ON: Pearson Canada.

Drug book as required for each year of program.

Killian, T. N. (2022). *Evolve resources for Gray Morris's calculate with confidence* (2nd Canadian ed.). Mosby

**OTHER REQUIRED RESOURCES**

Lippincott Williams & Wilkins (2013). *Nursing pharmacology made incredibly easy*. (3rd ed.). Ambler, PA: Lippincott Williams & Wilkins | Wolters Kluwer Health.

**Required reading(s) and Guiding Questions for each class can be found on Moodle. Required readings are to be done prior to each class.**

**Course Outcomes**

Upon successful completion of the course, the student shall be able to:

1. Demonstrate an understanding of the basic concepts related to the pharmacodynamic principles underlying drug actions in the human body.
2. Demonstrate an understanding of the basic pharmacokinetic principles related to movement of drugs within the human body.
3. Demonstrate an understanding of the classification, nature, properties and effects of drugs.
4. Demonstrate an understanding of the role of nursing and the health team in promoting client education optimal therapeutic regimens, and in the management of side/adverse effects.
5. Demonstrate an understanding of how individual differences account for differences in drug response.
6. Integrate principles of drug therapies into professional practice.
7. Demonstrate an understanding of ethical and legal principles related to the administration of pharmacological agents.

**Evaluation**

To complete course requirements for PHARM 130 Pharmacotherapeutics in Nursing, you will be required to complete three exams and a final exam.

**DISTRIBUTION OF MARKS**

	Description	Value	Date
<b>Exam 1</b> Multiple choice	Demonstrate knowledge of course content (Units 1–3)	20%	TBA
<b>Exam 2</b> Multiple choice	Demonstrate knowledge of course content (Unit 4)	20%	TBA
<b>Exam 3</b> Multiple choice	Demonstrate knowledge of course content (Unit 5)	20%	TBA
<b>Final Exam</b> Cumulative; multiple choice	Demonstrate knowledge of course content	40%	TBA
	<b>Total</b>	<b>100%</b>	

**PASSING LEVEL AND GRADING SCALE**

A student must achieve a minimum grade of 1.7 (C-) or 60% to receive credit for PHARM 130 Pharmacotherapeutics in Nursing.

Students must complete all assignments and examinations to receive a final course grade. Students will not be allowed to rewrite the assignments or exam to raise their course grade.

Refer to the Practical Nurse Handbook and Keyano College Calendar for information regarding grading scale, extensions, writing exams, supplemental exams and other program/College standard practices.

**Important Additional Information**

**Note to all Learners:** *It is the learner's responsibility to retain course outlines for possible future use in support of applications for transfer credit to other educational institutions.*

**Grading System**

Descriptor	Alpha Scale	4.0 Numeric Scale	Percentage
Excellent	A+	4.0	96-100
	A	4.0	90-95
	A-	3.7	85-89
Good	B+	3.3	80-84
	B	3.0	76-79
	B <sub>-</sub>	2.7	72-75
Satisfactory	C+	2.3	68-71
	C	2.0	64-67
	C-	1.7	60-63
Poor Minimum Pass	D+	1.3	55-59
	D	1.0	50-54
Failure	F	0	0-49

**Proposed Schedule**

Please refer to course schedule on Self-Service and Moodle. Course schedule on Moodle outlines class subject and topics.

**Please Note:**

The date and time allotted to each topic are subject to change.

**Performance Requirements and Student Services****Student Responsibilities**

As a student, it is your responsibility to contact the Office of the Registrar to complete the required forms, including the Withdraw Course or Program or a Change of Registration form. Please refer to the important dates listed in the Academic Schedule in the [Keyano College credit calendar](#). The Keyano College credit calendar also has information about Student Rights and the Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and the Code of Conduct Policies.

### Student Attendance

Class attendance is helpful for two reasons: First, class attendance maximizes a student's learning experience. Second, attending class is an excellent way to keep informed of matters relating to the course administration (e.g., the timing of assignments and exams). Ultimately, you are responsible for your learning and performance in this course. It is the responsibility of each student to be prepared for all classes. Absent students are responsible for the material covered in those classes, and students must ensure they are ready for their next class, including completing any missed assignments and notes.

### Academic Misconduct

Students are considered responsible adults and should adhere to the principles of intellectual integrity. Intellectual dishonesty takes many forms:

- Plagiarism or the submission of another person's work as their own,
- The use of unauthorized aids in assignments or examinations (cheating),
- Collusion or the unauthorized collaboration with others in preparing work,
- The deliberate misrepresentation of qualifications,
- The willful distortion of results or data,
- Substitution in an examination by another person,
- Submitting unchanged work for another assignment, and
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies. To ensure your understanding of plagiarism, you may be required to complete the online [Understanding Plagiarism tutorial](#) and submit the certificate of completion.

### Online Learning

Technology and internet connectivity will impact your online learning experience. You may be required to watch online videos, take online quizzes, or participate in live online classes. Live/virtual courses will be hosted in Microsoft Teams or Zoom. For all course delivery types, you will access your course resources on Keyano's learning management system: Moodle (iLearn). Login in using your [Keyano username and password](#). Keyano College operates in a Windows-based environment and having access to the correct tools for online learning is essential. Here's a list of recommended system requirements.

We are using the HyFlex course delivery mode. HyFlex is short for "hybrid-flexible." What this means is that, as the student, **you** have a **choice about how you participate in class on a daily/weekly basis**. The options for attending/participating this class are below:

**Options for Attending/Participating Class (choice can be made daily/weekly): (Instructor to pick the options available in your class)**

- a) **Face-to-face** in our classroom on campus at our regular class time (depends on your section).
- b) **Online virtually via Zoom (Synchronously)** at our regular class time (see details below in the "Expectations" section).
- c) **Online Asynchronously** on a flexible schedule, you will complete online activities during the scheduled week adhering to activities and assignment due dates. The mode may require you to review class recordings.

Please note that you may be asked to indicate your intended participation mode on a weekly basis using a poll tool in Moodle.

**Attending Online Virtually via Zoom:**

1. Enter our Moodle course, go to Course Information section, and click on the Online Virtual Session Zoom link to join the class.
2. Once you click on "Online Virtual Session Zoom link," a dialog box will appear, click the Join Meeting button.

**Expectations of Students with Respect to Technology: (ALL STUDENTS)** Log in to Moodle at least three times a week to check announcements and the schedule (it's good to get into the habit of checking Moodle daily for each of your courses).

1. Participate in class regardless of whether you attend face-to-face, virtually via Zoom (synchronously), or asynchronously.
2. If you choose to attend class virtually via Zoom or Teams:
  - a. make sure that your technology is updated and ready for each class (log in 5-10 minutes early to check updates and connections).
    - i. Note: Public Wi-Fi connections sometimes may not support the bandwidth necessary for Zoom.
    - ii. Headphones are recommended.
    - iii. Cameras on preferred.
  - b. once you enter the Zoom room, all you need to do is wait for the session to begin.
    - i. There may be a second difference between the virtually and "real life," so you will experience the lecture with a little bit of lag. However, this will not be noticeable unless you are attending in person and also have Zoom/Microsoft Teams open.
    - ii. Your instructor will monitor all questions that come in, so don't worry about any lag.
3. If you choose to attend class in person, it is recommended that you bring a device to class to login to Zoom session for group work.
4. Be respectful of your peers and the instructor regardless of whether you attend face-to-face or virtually.
5. Having non-course-content-related technology issues?
  - a. If you ever have a problem, first try using a different browser.
  - b. For Zoom related issues, you might find your answer at [Getting Started with Zoom](#)
  - c. For Moodle related issues, visit [Learning to use Moodle](#)
  - d. For general issues, you can contact the help desk or call 780-791-4965

**Internet Speed**

Minimum download and upload speeds of 10 Mbps. Recommended download speeds of 25 Mbps and upload speeds of 10 Mbps (if you are sharing your internet at home). You can check your internet speed with [Speedtest by Ookla](#).

**Computer System Requirements**

Microsoft Windows	Apple (Mac)
<p><b>Minimum Requirements:</b></p> <ol style="list-style-type: none"> <li>1. Windows 10 Operating System or above</li> <li>2. 4GB of RAM</li> <li>3. 10GB available hard drive storage space                             <ol style="list-style-type: none"> <li>a. Install the Microsoft Office 365 suite (~3GB) *</li> </ol> </li> <li>4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in.)</li> <li>5. Windows has built-in anti-virus/malware software. It is essential to install system updates to keep your device secured regularly.</li> </ol> <p>*<a href="#">Microsoft Office 365</a> is free to Keyano students.</p>	<p><b>Minimum Requirements:</b></p> <ol style="list-style-type: none"> <li>1. Mac Operating System 10.14 (Monterey) or above</li> <li>2. 4GB of RAM</li> <li>3. 10GB available hard drive storage space                             <ol style="list-style-type: none"> <li>a. Install the Microsoft Office 365 suite (~3GB) *</li> </ol> </li> <li>4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in.)</li> <li>5. Mac has built-in anti-virus/malware software. It is important to install system updates to keep your device secured regularly.</li> </ol> <p>*<a href="#">Microsoft office 365</a> is free to Keyano students.</p>
<p><b>Recommended Upgrades</b></p> <ul style="list-style-type: none"> <li>• 8GB of RAM</li> <li>• Regularly back up or synchronize your files, locally or with a cloud-based storage option.</li> </ul> <p>OneDrive is the cloud-based storage option free to students after the setup of KeyanoMail and Microsoft 365.</p>	<p><b>Recommended Upgrades</b></p> <ul style="list-style-type: none"> <li>• 8GB of RAM</li> <li>• Regularly back up or synchronize your files locally or with a cloud-based storage option.</li> </ul> <p>OneDrive is the cloud-based storage option free to students after the setup of KeyanoMail and Microsoft 365.</p>
<p>Tablets, iPads, and Chromebooks are <b>not</b> recommended: they may not be compatible with the testing lockdown browsers and Microsoft Office 365.</p>	

**Specific Department Requirements**

Business and OA programs require Windows 10.  
Other programs may utilize Windows-based tools as well.

**Computer Software**

Students have access to Microsoft Office 365 and Read&Write for free using Keyano credentials.

**Recording of Lectures and Intellectual Property**

Students may only record a lecture if explicit permission is provided by the instructor or Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not share, distribute, or publish any of the lectures or course materials; this includes any recordings, slides, instructor notes, etc., on any platform. Thus, no student is allowed to share, distribute, publish or sell course-related content without permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property. The [Academic Integrity Policy](#) provides additional information on Keyano College's expectations from students as members of the intellectual community.

**ITS Helpdesk**

If you have issues with your student account, you can contact the ITS Helpdesk by emailing [its.helpdesk@keyano.ca](mailto:its.helpdesk@keyano.ca) or calling 780-791-4965.

**COVID-19** We are subject to provincial, and municipal bylaws, and policies. These decisions may change pending further direction from the Alberta Chief Medical Officer, Alberta Health Services, and other provincial guidelines. To protect yourself and others, get immunized, wash your hands, wear a mask, keep your distance (2m/6 ft) and remain home when feeling unwell. For the most recent COVID-19 information, please refer to [albertahealthservices.ca/COVID](https://albertahealthservices.ca/COVID).

**Specialized Supports** The Student Services Department is committed to Keyano students and their academic success. There is a variety of student support available at Keyano. All student services are available during Keyano business hours: Monday to Friday, 8:30 a.m. to 4:30 p.m. The College is closed on statutory holidays. If you require support outside of regular business hours, please inform the support service team, and they will do their best to accommodate your needs.

**Accessibility Services** provides accommodations for students living with disabilities. Students with documented disabilities or who suspect a disability can meet with an Access Strategist to discuss their current learning barriers and possible accommodations. Students who have accessed accommodations in the past are encouraged to contact the department to request accommodations for the following semester. Please note that requesting accommodations is a process and requires time to arrange. Contact the department as soon as you know you may require accommodations. For accessibility supports and disability-based funding, please book an appointment by emailing us at: [accessibility.services@keyano.ca](mailto:accessibility.services@keyano.ca).

Accessibility Services also provides individual and group learning strategy instruction for all students and technology training and support to enhance learning. You can meet with an Access Strategist to learn studying and test-taking strategies. In addition, you can schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing: [accessibility.services@keyano.ca](mailto:accessibility.services@keyano.ca)

**Wellness Services** offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators provide a safe and confidential environment for you to seek help with personal concerns. Our Wellness Navigator offers support with basic needs such as housing, financial and nutritional support, and outside referrals when needed. Wellness Services welcomes students to participate in group sessions that address topics including mindfulness and test anxiety throughout the academic year. Individual appointments can be made by emailing [wellness.services@keyano.ca](mailto:wellness.services@keyano.ca).

**Library Services:** provides students with research, information, and education technology supports as they engage in their studies. Library staff are available to help you online and in person throughout the semester. Librarians offer individual and small group appointments booked using the online [Book A Librarian calendar](#). The Library also provides research and subject guides to help you with your studies. To view a subject or course-specific guide, check out the complete list of online [Subject Guides](#). To start your research and access citation guides (APA, MLA, Chicago, or IEEE), visit the [Research Help page](#). The Library's collections (including print and online materials) are searchable using [OneSearch](#). The Library offers a Loanable Technology collection to support students accessing and using technology. For an up-to-date list of technology available for borrowing, visit the Library's [Loanable Technology webpage](#). For a detailed list of library resources and services, go to [www.keyano.ca/library](http://www.keyano.ca/library). For all inquiries, please email [askthelibrary@keyano.ca](mailto:askthelibrary@keyano.ca) or [chat with us online](#).



**Academic Success Centre:** The Academic Success Centre at Keyano College (CC-119) provides **free** academic support services to registered students, such as tutoring, writing support, facilitated study groups, workshops, and study space. Academic Content Specialists are available in Mathematics, Science, Trades, Power Engineering, Upgrading/College Prep, Human Services, English, Humanities, and more. Students are encouraged to visit the Academic Success Centre to discuss study strategies and academic concerns. For additional information, please email [Academic.Success@keyano.ca](mailto:Academic.Success@keyano.ca).

**Academic Success Coach:** The Academic Success Coach is located in the Academic Success Centre and works with students to develop academic success plans, time management skills, study strategies, and homework plans. For additional information, please email [Academic.Success@keyano.ca](mailto:Academic.Success@keyano.ca).

### Authorization

This course outline has been reviewed and approved by the Program Chair.

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Kayla Hayter/Julie Ann Lyon, Instructor

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Candi Muise, Chair

Date Authorized

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Arlene Starkes, Dean

Date Authorized

### Signed copies to be delivered to:

Instructor

Registrar's Office