



## Introduction to Pharmacology

Course number and section: PHARM 1110-700

Semester and year: Spring 2024

Credit hours: 3

Instructor name: Professor Jane Doe

### Instructor Contact Information

Class location: On-Campus KN1240 and Online in Blackboard

Email: [jdoe@ccri.edu](mailto:jdoe@ccri.edu)

Office: KN1160

Office Phone: 401-444-4444

Office Hours: In-person every Tuesday at 5:00pm or by appointment (virtual appointments are also available)

Dept. Adm. Support: Reyna Azari, [razari@ccri.edu](mailto:razari@ccri.edu)

I am delighted to welcome you to this intensive yet rewarding overview course in pharmacology where we will be discussing established drug classes. I strive to cultivate an inclusive environment, valuing the diverse perspectives each of you brings. Please reach out with any questions as we progress through key pharmacology principles together this term. I wish you the very best as you pursue scientific knowledge in this class.

#### **Diversity and Inclusion:**

Scientific advancement requires embracing creativity and innovation from individuals with various perspectives. I am committed to fostering an equitable classroom that welcomes students across races, ethnicities, genders, sexual orientations, religions, national origins, and other aspects of identity. Similarly, in this course, I will do my best to supplement our text with readings and videos representative of diverse authors and diverse perspectives. I want each of you to feel encouraged in your pharmacology education while empowered as future leaders shaping the medical field. If you feel there is a barrier to your learning, please speak with me about any accommodation.

#### **Contact Policy**

Please feel free to contact me through the **Ask a Question** discussion on Blackboard for any course questions. I may take up to 24 hrs. to respond. Please help your fellow classmates by answering questions in the Ask a Question discussion. I give extra credit at the end of the class to students who were helpful to others.

If you have a personal issue that you would like to discuss, please email me with the course name and section number in the heading. I will reply as soon as possible. I also offer Office Hours throughout the week. Office hours are open to all students.

### **Email Policy**

It is important to know how to email me when you want to talk about topics that are more private in nature like missing a due date to a family emergency. Please add the course name and section number to the email subject line. It may take up to 48 hrs. for me to respond.

### **Starfish**

Occasionally, you will also see communication coming from me through Starfish. I will send kudos to you when you are doing well in the course and might connect you to student support services through Starfish.

### **Course Description**

This intensive 7-week hybrid course provides an overview of core concepts and recent developments in pharmacology. You will understand fundamental principles governing drug action across major human systems and diseases. We will discuss major drug classes and groups: analgesics, antidepressants, stimulants, antivirals, antibiotics, etc.

**Course Prerequisites/Corequisites:** Gen Bio

### **Course Delivery Mode**

**Hybrid:** Tuesdays 9:00-11:30 KN1240 and Online in Blackboard

Our course utilizes a hybrid format: we will have online content in Blackboard, and we will also meet in-person for classroom sessions. Refer to the Course Schedule at the end of this syllabus document for meeting dates.

### **Student Learning Outcomes**

By the end of our time together, you will be able to:

- Explain basic principles of pharmacokinetics and pharmacodynamics
- Describe mechanisms of action and effects of major drug classes
- Analyze the discovery and development processes for key historical and recently approved drugs
- Evaluate risk/benefit ratios and appraise therapeutic efficacy based on clinical trial data
- Assess ethical considerations and future directions in pharmacology

## Required Textbooks and Materials

There is no physical textbook for this class. We will be using select chapters from an open textbook. See details below.

### Required student materials



Title: Nursing Pharmacology, OER

Edition: 1st

Author: Chippewa Valley Technical College, Eau Claire, WI

Copyright Year: 2020

ISBN 13: 9781734914115

Publisher: [WI Technical Colleges Open Press](#)

Link: [Nursing Pharmacology - Open Textbook Library \(umn.edu\)](#)

**Library reserve and/or digital resources:** additional readings will be posted in Blackboard

**Point of view disclaimer:** The readings, class lectures, and my comments on the discussion boards will suggest a particular point of view. This perspective is my own and does not have to be yours. I encourage you to respectfully disagree with the ideas in the readings and lectures as well as the perspectives of your peers in the course. Please express yourself.

## Technical Requirements

### Email

I will communicate with you through your CCRI email account. Check your account every day to make sure you do not miss an email from an instructor. [Learn how to access your CCRI email.](#)

### Blackboard

Learning requires certain technical requirements to participate actively and be successful. At the minimum, you should have access to a computer and a stable Internet connection. In some cases, a headset with a microphone may also be required. Many courses at CCRI require certain technical requirements to participate actively and be successful. View [Set Up Your Tech](#) to learn more about technical requirements.

Take the [Online Student Orientation](#) to learn what is expected from online students.

## **CCRI Computer Labs**

The academic computer lab is available for CCRI students and allows access to computers with the required software. Information regarding CCRI's academic computer labs is available at the following link: [academic computer labs](#)

## **MS Office 365**

Microsoft Office 365 is available for all CCRI students to download. This version of Office will be accessible if you are enrolled at CCRI. It is recommended that students [download MS 365 to their computers](#) for access to MS Word, PowerPoint, and Excel offline.

## **MS OneDrive**

[OneDrive](#), is a cloud-based storage system that lets CCRI students store, share and organize files, photos, and favorites on Windows servers, and access them from any computer with an Internet connection. You will need and know how to use a computer or mobile device with Internet access.

## **Respondus LockDown Browser and Monitor**

This course requires the use of Respondus LockDown Browser (and Monitor) for our final exam proctoring. LockDown Browser prevents users from accessing other websites and applications on the same device during an exam. You may access the Respondus [Terms of Use](#), [Privacy Policy](#), and the [Privacy Center](#) to learn more about how Respondus protects your data.

Monitor requires a webcam and microphone. It will record video and audio of you and the environment around you. Respondus Monitor will flag suspicious behavior and I will review the video and flags for cheating before grading the exam. The information gathered by Respondus and Blackboard may be used by the instructor and the College in any academic misconduct proceedings.

If you are using Respondus Monitor at your home or in a personal area, by clicking the Respondus Terms of Agreement, you agree to allow your activity and surrounding workspace area to be recorded by video and audio and then to be analyzed by the Respondus Monitor system.

Watch an [overview of LockDown Browser and Monitor](#) to learn more about how the software works.

## **Prepare Your Testing Space Before Taking the Exam:**

1. Ensure you are in a location where you will not be interrupted (close doors, if possible).
2. Remove all other devices (e.g., tablets, phones, second computers).
3. Clear your desk of all external materials not permitted — bags, books, papers, etc.
4. Remain at your computer for the duration of the test.
5. Avoid wearing baseball caps or hats with brims.
6. Ensure your computer or tablet is on a firm surface (a desk or table) — not on your lap, a bed, or other surface that might move.
7. If using a built-in webcam, avoid tilting the screen after the webcam setup is complete.

8. Take the exam in a well-lit room and avoid backlighting, such as sitting with your back to a window.
9. Remember you will be unable to exit the test until all questions are completed and submitted.

## **Course Expectations**

In addition to any specific expectations outlined in our syllabus document, you are responsible for following the policies set forth in the [Student Handbook](#) and [College Catalog](#).

### **Attendance/Verification of Enrollment**

Per federal financial aid regulations, CCRI is required to verify student enrollment per the dates in the [College Calendar](#).

You will be able to confirm enrollment through attending our first in-person class session.

### **Pace**

In this blended course, you are expected to complete readings and engage with homework outside of our in-person class sessions. Be prepared to spend approximately 15 hours of your own time each week working on homework assignments, completing activities in Blackboard, reading, and watching lecture videos. Depending upon your prior experience with Blackboard, using the technology, and familiarity with course concepts, your time commitment will vary. I expect that you will be active in the course at least 2 times per week.

Each week will begin on Monday at 12:00 am and end on Sunday at 11:59:59 pm. All homework for the week will be due on Sunday. If you anticipate any challenges with staying on schedule, please reach out to me.

### **Course Methods**

You will develop critical thinking skills through case analysis, literature evaluation, and assessment of clinical outcomes.

### **CCRI Policy on Academic Integrity**

Academic integrity is vital to an institution of higher education. The integrity of your work is essential to awarding credit and developing your academic potential. Refer to [Academic Policies](#) in the Student Handbook for more information on the expectations for academic integrity.

### **Attendance and Participation**

Our blend of online and face-to-face instruction is designed to maximize time for learning and engagement. You will be completing a lot of readings and video lectures at home and then together we will be engaging with more hands-on activities in class, so I expect you to be present and ready to participate.

Frequently logging in to Blackboard is also important and counts as “class attendance.” I will expect to see you “online” in Blackboard at least twice a week.

### **Religious/Cultural Observance**

CCRI celebrates its diverse student population and acknowledges that state and school holidays do not always align with all religious and cultural observances. If you require an excused absence or other solution to enable you to participate in a religious or cultural observance, you may inform me in writing (email) **within 3 calendar days of the first day of the class**. At your professor's discretion, they may work with you to provide an excused absence or other flexible solution."

### **Artificial Intelligence (AI) Statement**

You are allowed to use advanced AI tools (such as ChatGPT, Midjourney, Copilot, etc.) on assignments in this course, unless otherwise noted. However, you should properly document and credit any use resources. For example, text generated using ChatGPT should include a citation such as: *“Text of your query.” (YYYY, Month DD of query). Generated using OpenAI.* <https://chat.openai.com/>

Material generated using other tools should follow a similar citation convention. Unless given permission to use those tools, each student is expected to complete each assignment without substantive assistance from others, including automated tools.

## **Grading Scale and Policies**

[Grading Information](#) and [Grade Grievance Information from](#) the Student Handbook.

### **Grading Standards and Requirements/Course Weights**

Your work in this class will be evaluated as follows:

- 30% (6) Chapter quizzes
- 10% (7) Class discussions and participation
- 15% (3) Case study analyses
- 25% (6) Homework assignments
- 20% (1) Final exam

| <b>Percentage</b> | <b>Letter Grade</b> |
|-------------------|---------------------|
| 93 - 100          | A                   |

|         |    |
|---------|----|
| 90 - 92 | A- |
| 87 - 89 | B+ |
| 83 - 86 | B  |
| 80 - 82 | B- |
| 77 - 79 | C+ |
| 70 - 76 | C  |
| 67 - 69 | D+ |
| 60 - 66 | D  |
| > 60    | F  |

**Quizzes and exams:** you will have 6 weekly quizzes and 1 final exam. The quizzes are designed to showcase the final exam expectations. All quizzes and the final exam will use a mix of multiple choice and essay-type questions. Respondus Monitor is required for the final exam.

**Class discussions and participation:** all discussions will take place in-class. We will engage in small group and whole class discussions. You will earn points for participating in discussions and other class activities.

**Case study analyses:** you will have 3 case studies to complete. We will work on all 3 during our in-person class sessions and you will complete the analysis paper at home and submit online in Blackboard.

**Homework assignments:** there are weekly homework assignments in this class. In-person sessions will prepare you and help you complete homework. You will submit online in Blackboard.

### **Late Policy/Make-Up Policy**

I provide a lot of flexibility in this course. Life is unpredictable. I would appreciate an email if you needed to submit a course assignment late or cannot be in-class in-person due to a family emergency. Please email me as soon as you can. Also, please understand that turning in assignments late can negatively impact your ability to fully learn course concepts. Late assignments will also receive delayed feedback. **Your first late submission will receive full credit, no questions asked. Every subsequent late submission will receive a 10% grade deduction for each day it is late unless you notify me, and we agree on a new timeline.**

### **Incomplete Grade**

This temporary grade designation is awarded at the end of a course. It is awarded only when a student is passing, has attended, or completed at least 75% of the course and is unable to complete the course due to extenuating circumstances (e.g., illness, death, unforeseeable accident, unavoidable circumstance).

# Student Support Resources

## Services for Students with Disabilities

Any student who feels they may need accommodation based on the impact of disability is encouraged to contact me privately to discuss your specific needs. Please also contact the office of [Disability Services for Students](#) to coordinate reasonable accommodation.

## Advising

Your success is the primary focus of the [Advising Center](#). As such, all matriculated students are assigned a trained, professional advisor who will provide support, guidance, and resources to help you navigate your academic journey and maximize your educational experience during your entire time at the Community College of Rhode Island. Recognizing the diverse needs of our student body, your assigned advisor will provide personalized assistance to ensure that your academic, personal, and career goals are met. The services available to you include academic planning and course selection; transfer planning; assistance in understanding college policies and procedures; and referrals to on-and-off-campus resources. Connecting with your assigned advisor is easy. Log in to your Starfish account (include instructions here). We look forward to partnering with you in your journey towards success at the Community College of Rhode Island.

## Counseling

CCRI offers short term and confidential counseling to help students with mental health concerns. The Personal Counseling and Wellness Office offers students a safe environment for one-on-one appointments, assisting with a variety of concerns related to anxiety, depression, or long-standing psychological obstacles. The Personal Counseling and Wellness Office also assists with connecting students with resources and outside agencies offering long-term counseling services. For a list of mental health services on and off campus, please visit [Personal Counseling and Wellness](#).

Finally, counseling services are offered at our four main campuses (Warwick, Lincoln, Providence, and Newport) M-F 8:00 am to 4 pm. To schedule an appointment, please email us at: [counseling@ccri.edu](mailto:counseling@ccri.edu)

## TELUS Health

CCRI has also partnered with TELUS Health, a counseling service available to students 24/7, free of charge. TELUS Health offers virtual walk-in's and scheduled appointments, with access to professional counselors. To learn more about TELUS Health, please click the link here: [visit TELUS Health](#)

## The Benefits Hub

Should you encounter an unexpected crisis during the semester (i.e., securing food or housing, addressing mental health concerns, personal safety, managing a financial crisis, and/or dealing



with a family emergency, etc.), please reach out to the office of [The Benefits Hub](#). If you are uncomfortable doing so on your own, please know that I can submit a referral on your behalf - just email me or schedule a meeting with me during office hours.

### **Veteran Services**

[CCRI Veteran Services Office](#) is committed to being a resource to all VA education beneficiaries. Our mission is to assist veterans, service members and dependents in the pursuit of their educational goals by maintaining up-to-date information on current programs and resources. Through a combination of experience with the educational system and contacts within the VA, we can help you with any aspect of your higher education.

### **The Tutoring Center**

We provide tutoring and academic coaching to help you achieve success. Do not wait to ask for help! Tutoring begins the second week of the semester and academic coaching appointments are available throughout the year. All services are at no cost to you. Visit [The Tutoring Center](#) or email [tutoring@ccri.edu](mailto:tutoring@ccri.edu) to learn more about our services.

### **Connect with a Tutor**

Tutors help you learn course material for a specific class by clarifying course concepts and providing practice with course materials. You do not have to be in jeopardy of failing to get help from a tutor. Click [here to watch the video directions](#) on how to schedule appointments through Starfish.

### **Partner with An Academic Coach**

Academic coaching is a personalized student-coach partnership with appointments tailored to your individual needs. A coach can help you with organizational and study strategies. One-time appointments or a series of consultations throughout the semester are available. Click [here to watch the video directions](#) on how to schedule appointments through Starfish.

### **Writing Center**

The Writing Center offers a variety of free services, including online and in-person help with prewriting, organization, thesis statements, topic sentences, research papers, revision/editing, and answers to questions. Online help at [ccri.edu/writingcenter](http://ccri.edu/writingcenter) includes:

- Zoom links for Writing Center Virtual Drop-in Tutoring Sessions
- Virtual Zoom appointments
- Email responses to questions and help with papers
- Website content, such as handouts, practice quizzes, literature analysis, PowerPoint presentations, reading resources, and information about research papers (MLA, APA, and Chicago systems)

In-person appointments can be made by contacting [writingcenter@ccri.edu](mailto:writingcenter@ccri.edu)

The Writing Center is available at three of our four campuses to assist CCRI students, faculty, and staff members with various kinds of writing and revision tasks.

### **Pear Deck Tutor**

Pear Deck Tutor (formerly TutorMe) is free private online tutoring available 24/7. It provides tutoring services to students who may not have time during the day to access one of CCRI tutors or those who need immediate assistance. Visit [Pear Deck Tutor](#) or access through the Tools option on the Blackboard main menu.

### **Starfish**

Starfish is a lifeline to various student support services provided by CCRI (advising, financial aid, tutoring, etc.). This platform creates a network of communication between faculty, students, and student services staff to support student success. Important communication will come from Starfish. Visit [Starfish](#).

### **Library**

The CCRI Library provides a welcoming environment for individual and collaborative learning. Each campus has a library with access to print and online books, journals, and other resources. Our catalog and databases can be accessed on campus or off campus. Librarians are available to assist students individually with research questions. We also work with faculty to provide specialized library instruction classes and offer [courses in information literacy and research skills](#).

### **Public Safety**

The [CCRI Campus Police Department](#) are committed to providing essential public safety and policing services to all members of our community in support of the College's educational mission. We deliver services to all community members, including visitors, with professionalism and integrity.

Important Links:

- Emergencies. - Call 401-825-2000
- [Report a Crime](#)
- [College Alerts \(RAVE\)](#)
- Request an Escort - Call 401-825-2109
- [Clery Information](#)

## **Civil Rights (Know Your Rights)**

### **Pregnant and Parenting Students**

CCRI is proud to welcome and support pregnant and parenting students on their path to success. If you need an accommodation, excused absence, or other resource or campus support to successfully complete your time at CCRI while pregnant or parenting, please contact the Title IX Coordinator via email at [titleixcoordinator@ccri.edu](mailto:titleixcoordinator@ccri.edu) or by phone at (401) 825-1126.

## **Discrimination and Harassment**

CCRI prohibits students and employees from engaging in discrimination and harassment based on any individual's race, color, creed, national or ethnic origin, gender, gender identity or expression, religion, disability, age, sexual orientation, genetic information, marital status, citizenship status, veteran status, and any other legally protected characteristic.

If you believe you have been subjected to discrimination or harassment, you can report such behavior to the Title IX Coordinator via email at [titleixcoordinator@ccri.edu](mailto:titleixcoordinator@ccri.edu), by phone at (401) 825-1126

[Nondiscrimination Policy and Complaint Procedures](#)

## **Sexual Harassment and Sexual Misconduct**

CCRI prohibits all forms of unlawful sexual harassment and sexual misconduct, which includes (but is not limited to) dating/domestic violence and stalking. If you believe you have been subjected to sexual harassment or sexual misconduct, you can report such behavior to the Title IX Coordinator via email at [titleixcoordinator@ccri.edu](mailto:titleixcoordinator@ccri.edu), by phone (401) 823-1126

[Title IX Sexual Harassment Policy and Procedures \(S-17\)](#)

[Nondiscrimination Policy and Complaint Procedures](#)

## **Fair Use of Copyrighted Works**

I will be using some work that is copyrighted. These works are provided to students under the Educational Fair Use Provision of Title 17 of the US Code and are not to be shared with individuals who are not enrolled in this course or used for purposes outside of the course.

## **Program Instructor Statement**

This syllabus is subject to change at any time. You are responsible for keeping current with changes made to this syllabus (I will notify you of the changes through Blackboard announcement).

Please see Course Calendar on the next page (tip: print out the last three pages of this document and use them as a checklist)

## Calendar of Weekly Course Topics

| Week | Topic                        | Complete before class  | Complete after class – Online in Blackboard  | Due Date: (by Sun at midnight, unless noted)           |
|------|------------------------------|--|--|--|
| 1    | Introduction to Pharmacology | Chapter 1: Introduction to basic pharmacological concepts and drug development processes   |  | Due by Tue Jan 23<br><br><b>In-person class Jan 23</b> |
| 1    |                              |  | Week 1 Homework: analyzing dose-response relationships.<br><br>Watch Lecture 1<br><br>Week 1 Quiz                  | Due by Sunday  |
| 2    | Neuropharmacology            | Chapter 2: Principles of neurotransmission, central nervous system drug targets, treatments for neurological disorders               |  | Due by Tue Jan 30<br><br><b>In-person class Jan 30</b> |
| 2    |                              |  | Week 2 Homework: Drug effect<br><br>Watch Lecture 2<br><br>Week 2 Quiz   | Due by Sunday  |
| 3    | Cardiovascular Pharmacology  | Chapter 3: Mechanisms regulating cardiovascular function, drug discovery for heart disease, development of modern therapeutic agents |  | Due by Tue Feb 6<br><br><b>In-person class Feb 6</b>   |
| 3    |                              |  | Week 3 Homework: ACE inhibitors, beta blockers, calcium channel blockers<br><br>Watch Lecture 3<br><br>Week 3 Quiz | Due by Sunday  |

| <b>Week</b> | <b>Topic</b>                         | <b>Complete before class</b>  | <b>Complete after class – Online in Blackboard</b>   | <b>Due Date:</b> (by Sun at midnight, unless noted) |
|-------------|--------------------------------------|---|--|---|
|             |                                      |   | Submit Case Study 1  |   |
| 4           | Endocrine Pharmacology               | Chapter 5: Overview of endocrine system, diabetes drugs, testosterone/estrogen agents, corticosteroids, thyroid medications |  |   |
| 4           |                                      |   | Week 4 Homework: endocrine drugs<br><br>Watch lecture 4<br><br>Week 4 Quiz   | Due by Sunday                                       |
| 5           | Chemotherapy pharmacology            | Chapter 10: Characteristics of cancer cells, principles of chemotherapy, major drug classes and mechanisms                  |  |   |
| 5           |                                      |   | Week 5 Homework: clinical outcomes for cancer drugs comparison chart<br><br>Watch lecture 5<br><br>Week 5 Quiz<br><br>Case study 2 | Due by Sunday                                       |
| 6           | Immunopharmacology and Biotechnology | Chapter 11: Review of immune system, anti-inflammatory drugs,   |  |   |
| 6           |                                      |   | Week 6 Homework: clinical outcomes for cancer drugs comparison chart<br><br>Watch lecture 6<br><br>Week 6 Quiz                     | Due by Sunday                                       |

| <b>Week</b> | <b>Topic</b>              | <b>Complete before class</b>                     | <b>Complete after class – Online in Blackboard</b>  | <b>Due Date:</b> (by Sun at midnight, unless noted) |
|-------------|---------------------------|--|---|---|
| 7           | Special Topics and Review | No reading this week, prepare for the final exam |   |   |
| 7           |                           |  | Final exam online using Respondus: the exam will open on Thursday and will stay open until the end of Friday<br><br>Submit Case Study 3 | <b>Due by Friday</b>                                |