UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

SUMMER 2021

COURSE NUMBER NUR 3123

COURSE TITLE Pathophysiology and Pharmacology

CREDITS 4

PLACEMENT RN/BSN Program: RN to BSN Track

PREREQUISITES Admission to RN-BSN Track

COREQUISITES None

FACULTY Sharon Adams DNP, CNM, APRN

Clinical Assistant Professor

Office HPNP 3213

Office Phone: (352) 273-6358

Cell Phone: (606) 226-2752

Office Hours: Thursdays 8-10 & by appointment

Email: [Sharonadams@ufl.edu](mailto:Sharonadams@ufl.edu)

David J Derrico RN, MSN, CNE

Clinical Assistant Professor

# Office: HPNP 3202

# Office phone: (352) 273-6341

Cell Phone: (352) 562-6305

Office hours: Friday 0800-1000 & by appointment

Email: [derridj@ufl.edu](mailto:derridj@ufl.edu)

Rose Nealis, PhD, APRN, PCPNP-BC, CPNP-AC

Clinical Associate Professor

Office: HPNP 2223

Office Phone: (352) 273-6412

Office hours: Tuesday 8-10 and by appointment.

Email: [nealirm@ufl.edu](mailto:nealirm@ufl.edu)

COURSE DESCRIPTION This course is designed to improve the learner’s ability to understand cellular physiology and alterations in structure and function resulting from the action of stressors on the human body at the cellular level. Physiological, pathophysiological, psychobiological, and pharmacological concepts are examined that provide a foundation for understanding the pathophysiology of disease and the rationale for treatment including pharmacologic therapy that serve as a basis for critical thinking and decision making in the planning and managing of care for individuals across the life span are examined.

COURSE OBJECTIVES Upon completion of this course, the student will be able to:

1. Utilize principles from the biological and behavioral sciences to understand pathophysiological and psychobiological processes across the lifespan.
2. Explain relationships among pathophysiological processes, laboratory and diagnostic tests, and clinical manifestations of selected illnesses and the pharmacological treatment.

3. Identify genetic factors that influence pathophysiological and psychobiological processes in diverse clients.

4. Distinguish differences between developmental physiological alterations and pathophysiological processes.

5. Explain psychobiological processes associated with functional alterations in client’s behavior.

1. Explain the rationale for pharmacological therapies related to the physiological, pathophysiological and/or psychobiological processes occurring in the individual.

COURSE SCHEDULE

Faculty Section Day

Adams 7060 UF Online

Derrico 0226 UF Online

Nealis 7E19 UF Online

E-Learning in Canvas is the course management system that you will use for this course. E-Learning in Canvas is accessed by using your Gatorlink account name and password at http://elearning.ufl.edu/. There are several tutorials and student help links on the E-Learning login site. If you have technical questions call the UF Computer Help Desk at 352-392-HELP or send email to helpdesk@ufl.edu.

It is important that you regularly check your Gatorlink account email for College and University wide information and the course E-Learning site for announcements and notifications. Course websites are generally made available on the Friday before the first day of classes.

TOPICAL OUTLINE

1. Cellular metabolism and genetic basis of health
2. Fluid and electrolytes
3. Acid/base balance
4. Alterations in physiological systems
5. Hematopoietic system
6. Immune system
7. Cellular proliferation
8. Circulatory system
9. Pulmonary system
10. Digestive system
11. Endocrine system
12. Renal system
13. Reproductive systems
14. Neurological system
15. Musculoskeletal system
16. Integumentary system
17. Alterations in cognition, perception and affect

TEACHING METHODS

Lecture, audiovisual materials, written materials, evolve online activities, and presentation of case studies.

LEARNING ACTIVITIES

Readings, worksheets, discussions, case study analysis, and study questions.

EVALUATION METHODS/COURSE GRADE CALCULATION

Exam 1 12%

Exam 2 12%

Exam 3 12%

Quizzes 28%

(Pathophysiology 14% & Pharmacology 14% - Note Quizzes are due Sundays @ 2359 weekly)

Discussion Boards 200 points 16%

Case Study 20%

Total 100%

*Feedback on all graded assignments routinely is given within 10 working days of the due date.*

*Course Average*

Students must earn an average of 74% on all required course work (exams and assignments) to pass the course. No grades will be rounded including the exam scores and the final course grade.

MAKE UP POLICY

Make-up exams/assignments will be arranged for university excused absences only. Contact David Derrico at [derridj@ufl.edu](mailto:derridj@ufl.edu) as soon as possible to arrange. Unexcused late work will receive a 10% grade deduction for each day for a maximum of 3 days. University policies can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

GRADING SCALE/QUALITY POINTS

A 95-100 (4.0) C 74-79\* (2.0)

A- 93-94 (3.67) C- 72-73 (1.67)

B+ 91- 92 (3.33) D+ 70-71 (1.33)

B 84-90 (3.0) D 64-69 (1.0)

B- 82-83 (2.67) D- 62-63 (0.67)

C+ 80-81 (2.33) E 61 or below (0.0)

\* 74 is the minimal passing grade

For more information on grades and grading policies, please refer to University’s grading policies: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

ACCOMMODATIONS DUE TO DISABILITY

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/> ) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

PROFESSIONAL BEHAVIOR

The College of Nursing expects all Nursing students to be professional in their interactions with patients, colleagues, faculty, and staff and to exhibit caring and compassionate attitudes. These and other qualities will be evaluated during patient contacts and in other relevant settings by both faculty and peers. Behavior of a Nursing student reflects on the student's individual’s ability to become a competent professional Nurse. Attitudes or behaviors inconsistent with compassionate care; refusal by, or inability of, the student to participate constructively in learning or patient care; derogatory attitudes or inappropriate behaviors directed at patients, peers, faculty or staff; misuse of written or electronic patient records (e.g., accession of patient information without valid reason); substance abuse; failure to disclose pertinent information on a criminal background check; or other unprofessional conduct can be grounds for disciplinary measures including dismissal.

***As students in the health professions at UF Health, you are expected to promote safety and a culture of care and concern for each other and for patients. Across our academic health center’s missions of research, teaching and patient care, nursing students must lead by example and take individual responsibility for modeling healthy habits and behaviors to minimize the spread of COVID-19. Failure to comply with the established public health measures, both on and off campus, is considered a serious breach of professional conduct.***

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> . Students are required to provide their own privacy screen for all examination’s administered to student laptops. No wireless keyboards or wireless mouse/tracking device will be permitted during examinations.

University and College of Nursing Policies

Please see the College of Nursing website for student policies (<http://students.nursing.ufl.edu/currently-enrolled/student-policies-and-handbooks/>) and a full explanation of each of the university policies – (<http://students.nursing.ufl.edu/currently-enrolled/course-syllabi/course-policies>)

UF Grading Policy

Religious Holidays

Counseling and Mental Health Services

Student Handbook

Faculty Evaluations

Student Use of Social Media

REQUIRED RESOURCE

An online proctoring service will be used allowing testing offsite. Students are required to have a working webcam, and a stable Internet connection using Google Chrome. On the day of testing you will be instructed to download a testing extension via email. An authentication process will include a picture of yourself, UF ID, and scanning the room. All testing is based on honor code, students found breaching the honor code will be dismissed from the UF College of Nursing and possibly the University of Florida.

REQUIRED TEXTBOOKS

Burchum, J. R., & Rosenthal, L. D. (2019). *Lehne's pharmacology for nursing care* (10th ed.).

St. Louis, MO: Elsevier Saunders.

McCance, K.L., & Huether, S. E. (2019). *Pathophysiology*: *The biologic basis for disease in*

*adults and children* (8th ed.). St. Louis: Mosby/Elsevier.

WEEKLY CLASS SCHEDULE

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| **DATE** | **PATHOPHYSIOLOGY** | **PATHOPHYSIOLOGY**  **ASSIGNMENTS/READINGS** | **PHARMACOLOGY**  **TOPIC/EVALUATION** | **PHARMACOLOGY**  **ASSIGNMENTS/READINGS** |
| **Week 1**  May 10-16 | Introduction, Cellular Metabolism, Stress | McCance: pp. 22-27, Chapters 2, 11, 16, & pp. 1543-1554.  **Syll. Quiz Due 5/16, 11:59pm**  **Quiz #1 Due by 5/16, 11:59pm** | Introduction | Burchum (B):  Unit 1 – (Ch. 1, 2, 3)  **Discussion Board #1**  **due 5/16 1159** |
| **Week 2**  May 11-23 | Fluids & Electrolytes  Acids & Bases | McCance: Chapter 3  **Quiz #2 Due by 5/23, 11:59pm** | Basic Principles of Pharmacology   * Pharmacokinetics * Pharmacodynamics | B: Unit II (Ch. 4, 5)  **Pharmacology Quiz #1 Due by 5/23, 11:59 pm** |
| **Week 3**  May 24-30 | Hematopoietic System | McCance: Chapters 28, 29, 30 & pp. 1000-1004  **Quiz #3 Due by 5/30, 11:59pm** | Basic Principles of Pharmacology   * Drug Interactions * Adverse Reactions * Medication Errors * Individual Drug Responses | B: Unit II (Ch. 6, 7, 8)  **Pharmacology Quiz #2 Due by 5/30, 11:59pm** |
| **Week 4**  June 1-6 | Immune System  **Exam 1: Honorlock**  **June 1** | McCance: Chapters 7, 8, 9, & 10  **Quiz #4 Due by 6/6, 11:59pm** | Anti-inflammatory, Antiallergic, and Immunologic Drugs | B: Unit XI (Ch. 67, 68, 69, 70, 71, 72) |
| **Week 5**  June 7-13 | Cancer | McCance: Chapters 12, 13, & pp. 968-989  **Quiz #5 Due by 6/13, 11:59pm** | Cancer Chemotherapy | B: Unit XVIII (Ch. 101, 102, 103) |
| **Week 6**  June 14-20 | Pulmonary System | McCance: Chapters 35, 36, &  pp. 1220-1222  **Quiz #6 Due by 6/20, 11:59pm** | Respiratory Tract Drugs | B: Unit XIII (Ch. 76, 77)  **Pharmacology Quiz #3 Due by 6/20, 11:59pm** |
| June 21-27 | Summer Break | | | |
| **Week 7**  June  28 –  July 5 | Cardiovascular System | McCance: Chapters 32 & 33  **Quiz #7 Due by 7/5, 11:59pm** | Drugs that Affect the Heart, Blood Vessels, and Blood | B: Unit VII (Ch. 43, 44, 45, 46, 47)  **Discussion Board #2 due 7/5 @ 1159** |
| **Week 8**  July 6-11 | Urinary, Renal, & Reproductive Systems  **Exam 2: Honorlock**  **July 6** | McCance: Chapters 26, 38, 39, &  pp. 788-823  **Quiz #8 Due by 7/11, 11:59pm** | Chemotherapy of Infectious Diseases | B: Unit XVI (Ch. 83); Recommend Review Chapters: 84-96  **Pharmacology Quiz #4 Due to 7/11, 11:59 pm** |
| **Week 9**  July 10-18 | Gastrointestinal System | McCance: Chapters 41 & 42  **Quiz #9 Due by 7/18, 11:59pm** | Gastrointestinal Drugs | B: Unit XIV (Ch. 78, 79, 80)  **Pharmacology Quiz #5 Due by 7/18, 11:59pm** |
| **Week 10**  July 19-25 | Endocrine System  Musculoskeletal System | McCance: Chapter 21, 22, 44, & 45  **Quiz #10 Due 7/25, 11:59pm** | Drugs for Endocrine Disorders | B: Unit VIII (Ch. 57, 58, 59, 60) |
| **Week 11**  July 26 -August 1 | Neurologic System  ***Case Study:***  ***Due July 27, 2359PM*** | McCance: Chapters 15, 17 & 18  **Quiz #11 Due 8/1, 11:59pm** | * Drug Therapy Across the Life Span * Peripheral Nervous System Drugs * Central Nervous System Drugs | B: Unit III (Ch. 9, 10, 11)  Unit IV (Ch. 12, 13)  Unit V (Ch. 20)  **Discussion Board #3 Due 8/1 1159 pm**  **Quiz #6 Due by 8/1, 11:59pm** |
| **Week 12**  August 2-6 | **Exam 3: Honorlock**  **August 3** |  |  |  |

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| Approved: | Academic Affairs Committee:  General Faculty:  UF Curriculum Committee: | 07/14  07/14 |