

UNIVERSITY OF FLORIDA
COLLEGE OF NURSING
COURSE SYLLABUS
Fall 2025

<u>COURSE NUMBER</u>	NGR 6140
<u>COURSE TITLE</u>	Physiology and Pathophysiology for Advanced Nursing Practice
<u>CREDITS</u>	4
<u>PLACEMENT</u>	Variable
<u>PREREQUISITES</u>	None
<u>COREQUISITES</u>	None

FACULTY

Michael D. Bumbach, PhD, APRN, FNP-BC, RN, CHSE Clinical Associate Professor Office Hours*: Monday, 10am-12pm Email: mbumbach@ufl.edu	Tracey Taylor DNP, APRN, ACNP-BC Clinical Associate Professor Office Hours*: Wednesday, 11am-1pm Email: traceytaylor@ufl.edu
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* Faculty are generally available to meet with students (in the office or virtually) as listed above. Due to professional travel and other unavoidable obligations, faculty may not be present every week without notice. It is advisable that students confirm availability or make an appointment in advance.

COURSE DESCRIPTION This course provides an advanced understanding of concepts in human physiology and pathophysiology as a foundation for the advanced nursing practice role. Concepts related to biological sciences including cell biology, tumor biology, immunology, genetics, and pathology will be presented. The focus of this course is on principles, theories, and current research related to physiological and pathophysiological system alterations across the lifespan.

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

1. Integrate knowledge from the physical, biological, and social sciences to understand human physiological functioning across the lifespan.
2. Analyze the relationships between normal physiological processes and pathophysiological processes across the lifespan.
3. Explain the etiology, at-risk populations, pathogenesis morphology, and clinical and diagnostics manifestations of selected acute and chronic disease states.
4. Apply self-learning principles in the advanced practice role in integrating current

- research-based findings to understand etiology, pathogenesis and morphological alterations of selected acute and chronic disease states.
5. Relate underlying physiological and/or pathophysiological alterations to health assessments findings.

COURSE SCHEDULE

<u>Faculty</u>	<u>Section</u>	<u>Day/Time</u>
Bumbach	28F8	Web-based
Taylor	0295	Web-based

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.

NGR 6140 is a completely asynchronous course offered in an online format. There is no required class attendance, however quizzes, exams and other course assignments must be completed by the assigned due date. Any date changes will be announced in advance. Your continued enrollment in this course acknowledges agreement with the course schedule.

TOPICAL OUTLINE

1. Concepts in developmental physiology
2. Physiological concepts in:
 - a. Cellular Biology
 - b. Immunology
 - c. Genetics
 - d. Tumor Biology
 - e. Endocrinology
 - i. Reproductive Function
 - f. Neurology
 - g. Hematology
 - h. Dermatology
 - i. Respiratory Function
 - j. Cardiovascular Function
 - k. Gastrointestinal Function
 - l. Renal Function
 - m. Musculoskeletal Function
3. Etiology, at-risk populations, pathogenesis, and morphology of selected acute and chronic disease states
4. Physiological and pathological alterations underlying clinical and diagnostic

manifestations of selected acute and chronic disease states

TEACHING METHODS

Online asynchronous lecture, textbook, group discussion, presentation, audiovisual materials, computer assisted instruction, selected readings.

LEARNING ACTIVITIES

Case studies, readings, discussions online, presentations, quizzes, and examinations.

Artificial Intelligence (AI) Use and Academic Integrity Statement

The University of Florida College of Nursing supports the responsible and transparent use of AI tools to enhance learning, innovation, and academic integrity. The use of AI tools must follow both the UF Regulations ([4.040 Student Honor Code and Student Conduct Code](#)) and the College of Nursing’s [“Artificial Intelligence at the UF College of Nursing”](#) guidance document.

User responsibilities:

1. Students may use Generative AI (GenAI) tools (e.g., Navigator AI, Copilot, ChatGPT, DALL-E, etc.) only when authorized by course instructors.
2. Accept full responsibility for the accuracy and originality of the submitted content.
3. Instructors may request a brief reflection on how the tool supported students’ work.
4. Cite the AI tool used, specifying how it was employed. Use UF CON recommended citation standards (e.g., [APA 7 style](#)) when referencing GenAI outputs.

Unauthorized use of AI tools will be considered academic misconduct and may result in disciplinary action. For more detailed information and examples of appropriate AI use, disclosure, and reflection, refer to the full “Artificial Intelligence at the UF CON” guidance document.

College of Nursing Professional Development Program: Focus Fridays:

Focus Fridays are a dedicated time on Fridays where undergraduate and graduate students engage in professional development activities that foster professional growth and promote connection as a nursing community with a shared purpose. Students are responsible for attending and engaging in scheduled all designated DNP Focus Friday activities.

EVALUATION METHODS/COURSE GRADE CALCULATION

Evaluation are based upon the following areas:

Examinations (Exam 1 @ 15%; Exam 2 & Exam 3 @ 22.5%)	60%
Discussion Board Case Study Presentations (group assignment)	15%

Module Quizzes	25%
Total	100%

Students are expected to participate in the activities listed in the course syllabus and on the course website. Timeframes for receiving materials, are listed in the course materials on Canvas.

EVALUATION DETAILS

All evaluation details, including rubrics are listed on the Canvas course website in detail. Specific exam dates are listed on the syllabus calendar and Canvas.

MAKE UP POLICY

You must schedule and be present at a computer for all scheduled exams. Early testing is not an option. Make-up exams are given only for exceptional circumstances and are not the precedence. Students must discuss the absence circumstances with faculty prior to the scheduled exam and, if approved, a missed exam must be made up within one week. There will be no make up for any of the other assignments including weekly quizzes.

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)

* 84 is the minimal passing grade

For more information on grades and grading policies, please refer to University's grading policies: <https://catalog.ufl.edu/graduate/regulations/>.

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.

ACADEMIC POLICIES & RESOURCES

UF syllabus academic policies and academic resources are located on one centralized link:
<https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

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/>).

REQUIRED TEXTBOOK

McCance, K. & Huether, S. (2023). *Pathophysiology: The Biologic Basis for Disease in*

Adults and Children (9th ed.). St. Louis, Missouri: Elsevier. ISBN:

9780323789875

RECOMMENDED TEXTBOOKS AND WEBSITES

1. Publication Manual of the American Psychological Association, (7th Ed.). ISBN: 9781433832161
2. <https://owl.english.purdue.edu/owl/resource/560/08/>

WEEKLY CLASS SCHEDULE

** The weekly class schedule is subject to change based on course needs.*

DATE/ MODULE	TOPIC/ EVALUATION	READINGS/ ASSIGNMENTS	PROGRAM OUTCOMES
Week 1: Aug. 21-24	Course Orientation	Syllabus and Orientation Materials – In Canvas Syllabus Quiz due Aug. 24, by 11:59pm	
Week 2: Aug. 25-31	Fluids, Electrolytes, Acids & Bases Genes, Environment-Lifestyle & Common Disease	Readings: Chapters 3, 5 Quiz #2 due Aug. 31, by 11:59pm	1,2,5,6
Week 3: Sept. 1-7 (Holiday Sept. 1)	Mechanisms of Self-Defense	Reading: Chapters 7-11 Quiz #3 due Sept. 7, by 11:59 pm	1,2,5,6
Week 4: Sept. 8-14	Cellular Proliferation: Cancer	Readings: Chapters 12-14 Quiz #4 due Sept. 14, by 11:59pm	1,2,5,6
Week 5: Sept. 15-21	The Neurological System of Mental Health	Readings: Chapters 15-20 Quiz #5 due Sept. 21, by 11:59pm	1,2,5,6
Week 6: Sept. 22-28	Exam #1 – Content Weeks 2-5 Available Monday, Sept. 22 from 8am until Tuesday, Sept 23 at 5pm	None	1,5,6
	The Endocrine System The Reproductive System	Readings: Chapters 21-23, 24-27 Quiz #6 due Sept. 28, by 11:59pm	1,2,5,6
Week 7: Sept. 29-Oct. 5	The Hematologic System	Readings: Chapters 28-30 Quiz #7 due Oct. 5, by 11:59pm	1,2,5,6
Week 8: Oct. 6-12	The Cardiovascular & Lymphatic Systems	Readings: Chapters 31-33 Quiz #8 due Oct. 12, by 11:59pm	1,2,5,6

Week 9: Oct, 13-19 (Holiday Oct. 17-18)	Exam #2 – Content Weeks 7-9 Available Wednesday, October 15 from 8am until Thursday, October 16 at 5pm	None	1,5,6
Week 10: Oct. 20-26	The Pulmonary System	Readings: Chapters 34-36 Quiz #9 due Oct. 26 by 11:59pm	1,2,5,6
Week 11: Oct. 27-Nov. 2	The Renal & Urologic Systems	Readings: Chapter 37-39 Quiz #10 due Nov. 2 by 11:59pm	1,2,5,6
Week 12: Nov. 3-9	The Digestive System The Musculoskeletal System	Readings: Chapters 40-42, 43-45 Quiz #11 due Nov. 9 by 11:59pm	1,2,5,6
Week 13: Nov. 10-16 (Holiday Nov. 11)	The Integumentary System Multiple Interacting Systems	Readings: Chapter 46-47, 48-49 Quiz #12 due Nov. 16 by 11:59pm	1,2,5,6
Week 14-15: Nov. 17-Dec. 3	Course Review	Discussion Board Case Study Presentation due Dec. 3 by 11:59pm	1,2,5,6
Reading Days	Reading Days: December 4-5		
Finals Week	Exam #3 – Content Weeks 11-14 Available Monday, Dec. 8 from 8am until Tuesday, Dec. 9 at 5pm		1,5,6

The purposes of the curriculum leading to the degree Doctor of Nursing Practice are to:

1. Prepare the student to acquire advanced competencies in increasingly complex practice and emerging leadership roles.
2. Provide the student with a significant and comprehensive knowledge base that supports scientific skepticism and the incorporation of new knowledge in advanced nursing practice.
3. Provide the student with enhanced knowledge for the acquisition of leadership skills used to improve nursing practice and patient outcomes.

Upon completion of the doctoral program, the graduate will be able to:

1. Evaluate scientific bases from extant and emerging areas of knowledge for advanced nursing practice.
2. Evaluate decision support systems to solve clinical problems for individuals, aggregates and systems.
3. Develop advanced leadership and collaborative skills to mobilize interdisciplinary teams to solve highly complex clinical problems.
4. Develop expertise to formulate health policy and provide leadership in establishing clinical excellence and creating new models of cost-effective health care delivery.
5. Critically assess, plan, intervene and evaluate the health experiences of individuals, aggregates and systems to provide safe, evidence-based care.
6. Synthesize knowledge of cultural diversity and global perspectives in delivering health care and in critiquing nursing systems

Approved: Academic Affairs Committee: 06/96; 04/01
Faculty: 08/96; 05/01
UF Curriculum: 10/96; 05/99