# UNIVERSITY OF FLORIDA COLLEGE OF NURSING COURSE SYLLABUS

Spring 2023

# COURSE NUMBER NGR 6140

COURSE TITLE Physiology and Pathophysiology for Advanced Nursing Practice

# CREDITS 4

PLACEMENT Variable

PREREQUISITES None

COREQUISITES None

# FACULTY

Michael D. Bumbach, PhD, APRN, FNP-BC, MSN, RN Clinical Assistant Professor

Office: HPNP 4201

Office Phone: (352) 273-6638

Office Hours\*: Monday, 9am – 11am Email: [mbumbach@ufl.edu](mailto:mbumbach@ufl.edu)

Tracey L. Taylor, DNP, APRN, ACNP-BC Clinical Associate Professor

Office Hours\*: Wednesday, 11am – 1pm Email: [traceytaylor@ufl.edu](mailto:traceytaylor@ufl.edu)

\* 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 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.

1. Analyze the relationships between normal physiological processes and pathophysiological processes across the lifespan.
2. Explain the etiology, at-risk populations, pathogenesis morphology, and clinical and diagnostics manifestations of selected acute and chronic disease states.
3. 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.
4. Relate underlying physiological and/or pathophysiological alterations to health assessments findings.

# COURSE SCHEDULE

Faculty Section Day/Time Bumbach 1H92 Web-based

Taylor 1H91 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/.](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.](mailto: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:
   1. Cellular Biology
   2. Immunology
   3. Genetics
   4. Tumor Biology
   5. Endocrinology
      1. Reproductive Function
   6. Neurology
   7. Hematology
   8. Dermatology
   9. Respiratory Function
   10. Cardiovascular Function
   11. Gastrointestinal Function
   12. Renal Function
   13. 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.

# EVALUATION METHODS/COURSE GRADE CALCULATION

Evaluation are be based upon the following areas:

|  |  |
| --- | --- |
| Examinations (3 @ 20% each) | 60% |
| Discussion Board Case Study Presentations (group assignment) | 15% |
| Module Quiz (12 total @ 2% each; syllabus quiz 1%) | 25% |
| Total | 100% |

Students are expected to participate in the activities as listed in the course syllabus and on the course website. Timeframes for receiving of 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.

# 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. Students must discuss the absence circumstances with faculty prior to the scheduled exam and 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/.](https://catalog.ufl.edu/graduate/regulations/)

# 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/.](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/.](https://ufl.bluera.com/ufl/) Summaries of course evaluation results are available to students at [https://gatorevals.aa.ufl.edu/public-results/.](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.

# INCLUSIVE LEARNING ENVIRONMENT

We strive to provide an inclusive learning environment as we prepare graduates who care, lead, and inspire. As we share our nursing values and personal beliefs inside or outside of the

classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels they belong to the College of Nursing community. [https://nursing.ufl.edu/wordpress/files/2022/08/BSN\_DNP-Handbook-Jul-28-](https://nursing.ufl.edu/wordpress/files/2022/08/BSN_DNP-Handbook-Jul-28-2022.pdf) [2022.pdf](https://nursing.ufl.edu/wordpress/files/2022/08/BSN_DNP-Handbook-Jul-28-2022.pdf)

# CIVILITY STATEMENT

Civility among all individuals in the CON (faculty, staff and students) is vital for an inclusive environment that fosters personal reflection, growth and a collective harmony. <https://nursing.ufl.edu/wordpress/files/2022/08/BSN_DNP-Handbook-Jul-28-2022.pdf>

# 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/>)

# 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.*

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| **DATE/ MODULE** | **TOPIC/ EVALUATION** | **READINGS/ ASSIGNMENTS** | **PROGRAM OUTCOMES** |
| Week 1:  Jan. 9-15 | Course Orientation | Syllabus and Orientation Materials – In Canvas Syllabus Quiz due 1/15/23, by 11:59 pm |  |
| Week 2:  Jan. 17 – 22  (Holiday, Jan. 16) | Fluids, Electrolytes, Acids & Bases Genes, Environment-Lifestyle & Common Disease | Readings: Chapters 3, 5  Quiz #2 due 1/22/23 by 11:59pm | 1,2,5,6 |
| Week 3:  Jan. 23-29 | Mechanisms of Self-Defense | Reading: Chapters 7-11  Quiz #3 due 1/29/23 by 11:59 pm | 1,2,5,6 |
| Week 4:  Jan. 30-Feb 5 | Cellular Proliferation: Cancer | Readings: Chapters 12-14  Quiz #4 due 2/5/23 by 11:59pm | 1,2,5,6 |
| Week 5:  Feb. 6-12 | The Neurological System Mental Health | Readings: Chapters 15-20  Quiz #5 due 2/12/23 by 11:59pm | 1,2,5,6 |
| Week 6:  Feb. 13-19 | **Exam #1** – Content Weeks 2-5 Available Thursday, Feb. 16 from 8am until Friday, Feb. 17 at 5pm |  | 1,5,6 |
| Week 7:  Feb. 20-26 | The Endocrine System The Reproductive System | Readings: Chapters 21-23, 24-27 Quiz #6 due 2/26/23 by 11:59pm | 1,2,5,6 |
| Week 8:  Feb. 27-Mar. 5 | The Hematologic System | Readings: Chapters 28-30  Quiz #7 due 3/5/23 by 11:59pm | 1,2,5,6 |
| Week 9:  Mar. 6-10 | The Cardiovascular & Lymphatic Systems | Readings: Chapters 31-33  Quiz #8 due 3/10/23 by 11:59pm | 1,2,5,6 |

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| Week 10:  Mar. 19-26  (Holiday Mar. 11-18) | **Exam #2** – Content Weeks 7-9 Available Thursday, Mar. 23 from 8am until Friday, Mar. 24 at 5pm |  | 1,5,6 |
| Week 11:  Mar. 27-Apr. 2 | The Pulmonary System | Readings: Chapters 34-36  Quiz #9 due 4/2/23 by 11:59pm | 1,2,5,6 |
| Week 12:  Apr. 3-9 | The Renal & Urologic Systems | Readings: Chapter 37-39  Quiz #10 due 4/9/23 by 11:59pm | 1,2,5,6 |
| Week 13:  Apr. 10-16 | The Digestive System  The Musculoskeletal System | Readings: Chapters 40-42, 43-45 Quiz #11 due 4/16/23 by 11:59pm | 1,2,5,6 |
| Week 14:  Apr. 17-23 | The Integumentary System Multiple Interacting Systems | Readings: Chapter 46-47, 48-49  Quiz #12 due 4/23/23 by 11:59pm | 1,2,5,6 |
| Week 15:  Apr. 24-26 | Course Review | Discussion Board Case Study Presentation due 4/26/23 by 11:59pm | 1,2,5,6 |
| Week 16:  Apr. 27-28 | Reading Days: Apr. 27-28 |  |  |
| Finals Week | **Exam #3** – Content Weeks 11-14 Available Monday, May 1 from 8am until Tuesday, May 2 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