UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

Spring 2021

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

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Office Hours: Online by Appointment

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COURSE DECRIPTION

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 relationship between normal physiological processes and pathophysiological process across the lifespan.
3. Explain the etiology, at-risk populations, and pathogenesis, morphology, and clinical and diagnostic 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 assessment findings.

COURSE SCHEDULE

Faculty Section Day Time

Bumbach/Schubart 1H91 Web-based

This course will be delivered via instructional technology without face-to-face instruction. Any synchronous sessions may be audio visually recorded. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded.  If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

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](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. This is a challenging and time-consuming course with a strong clinical focus. You will need to devote several hours per week to reading, studying, reviewing all course materials, and listening to the lectures. Please plan carefully to ensure that you can complete the course successfully.

This is a completely asynchronous course. There is no required class attendance. The course is offered in an online format. Any changes will be announced in advance. Your continued enrollment in this course acknowledges agreement with the schedule. If you desire additional face to face time with the instructor, this can be arranged by emailing the professor. Office hours are posted and held weekly.

PLEASE NOTE: Students are expected to complete all assignments within the posted timeframe. If assignments are done early, answers and rationale will be reviewed after the completion date and time. If an illness or emergency is experienced that prevents the student from completing assignments in a timely manner, the student should notify the faculty member as soon as possible. Faculty will consider crisis situations on a case-by-case basis. For additional information about absences and testing, students should refer to attendance policies outlined in the [Student Handbook](https://nursing.ufl.edu/wordpress/files/2019/08/2019-Student-Handbook.pdf).

TECHNOLOGY

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The College of Nursing utilizes Proctor U, a live proctoring service, for major examinations in graduate web-based online courses to ensure a secure testing environment. See Canvas for more information on Proctor U and how to create an account.

* Each student’s computer must follow Policy S1.04, *Student Computer Policy* and must contain a web cam, microphone, and speakers.
* CON IT Support Office will oversee this process and provide technical assistance

TOPICAL OUTLINE

1. Concepts in developmental physiology
2. Physiological concepts in:
   1. Cellular Biology
   2. Immunology
   3. Genetics
   4. Tumor Biology
   5. Endocrinology
   6. Reproductive Function
   7. Neurology
   8. Hematology
   9. Dermatology
   10. Respiratory Function
   11. Cardiovascular Function
   12. Gastrointestinal Function
   13. Renal Function
   14. 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 lectures, textbook, written materials, case studies, selected reading, and electronic/online sources.

LEARNING ACTIVITIES

Readings, case studies, discussions online, presentations, mini-papers, quizzes, and examinations.

# EVALUATION METHODS/COURSE GRADE CALCULATION

Examinations and written assignments are submitted electronically. No hard copy submissions are accepted.

GRADING PLAN:

Evaluation are be based upon the following areas:

|  |  |
| --- | --- |
| Examinations (Midterm/Final @ 25% each) | 50% |
| Mini Paper (individual work) | 12.5% |
| Discussion Board Case Study Presentations (group assignment) | 12.5% |
| Quizzes (10 total @ 2.5% each; includes syllabus quiz) | 25% |
| Total | 100% |

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

CLASS ATTENDANCE AND MAKE UP POLICY

Students are responsible for meeting all academic objectives as defined by the instructor. Absences count from the first-class meeting. In general, acceptable reasons for absences from class include illness, serious family emergencies, special curricular requirements, military obligation, severe weather conditions, religious holidays, and participation in official University activities. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved.

Students may not attend classes unless they are registered officially or approved to audit with evidence of having paid audit fees. After the end of drop/add, the Office of the University Registrar provides official class rolls/addenda to instructors. Students who do not attend at least one of the first 2 class meetings of a course or laboratory in which they are registered and who have not contacted the academic unit to indicate their intent may be dropped from the course. **Students must not assume that they will automatically be dropped if they fail to attend the first few days of class.** The academic unit will notify students dropped from courses or laboratories by posting a notice in the academic unit office. Students may request reinstatement on a space-available basis if documented evidence is presented. The University recognizes the right of the individual professor to make attendance mandatory. After due warning, professors may prohibit further attendance and then assign a failing grade for excessive absences. Students who have registration changes, at any time during the semester, should verify their registrations before the last day of class of the term. Retroactive drop/add or other registration changes will not be permitted.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/graduate/regulations/#text>

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.

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 the University’s grading policies: http://gradcatalog.ufl.edu/content.php?catoid=4&navoid=907#grades

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 TEXTBOOK

McCance, K. & Huether, S. (2018). *Pathophysiology: The Biologic Basis for Disease in Adults*

*and Children (8th ed.)*.  St. Louis, Missouri: Elsevier. ISBN-13: 978-0323583473; ISBN-10: 9780323583473; https://www.vitalsource.com/referral?term=9780323413206

RECOMMENDED TEXTBOOKS/WEBSITES

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

WEEKLY CLASS SSCHEDULE

|  |  |  |
| --- | --- | --- |
| **DATE** | **TOPIC/EVALUATION** | **READINGS** |
| **Week 01**  January 11-16 | Fluids, Electrolytes, Acids & Bases  Genes, Environment-Lifestyle & Common Disease  Syllabus Quiz: Due Jan 15, by 11:59pm  **(\*Note: All Due Dates are on Friday of their respective week)** | Chapter 3, 5 |
| **Week 02**  January 19-23  Holiday 1/18 | Mechanisms of Self-Defense  Quiz 01: Due Jan 22, by 11:59pm | Unit III – Chapters 7-11 |
| **Week 03**  January 25-30 | Cellular Proliferation: Cancer  Quiz 02: Due Jan 29, by 11:59pm | Unit IV: Chapters 12-14 |
| **Week 04**  February 1-6 | The Neurologic System  Quiz 03: Due Feb 5, by 11:59pm | Unit V: Chapters 15-20 |
| **Week 05**  February 8-13 | The Endocrine System  Mini-Paper: Due Feb 12, by 11:59pm | Unit VI: Chapters 21-23 |
| **Week 06**  February 15-20 | The Reproductive System  Quiz 04: Due Feb 19, by 11:59pm | Unit VII: Chapters 24-27 |
| **Week 07**  February 22-27 | The Hematologic System  Quiz 05: Due Feb 26, by 11:59pm | Unit VIII: Chapters 28-31 |
| **Week 08**  March 1-6 | Midterm Exam: First Half of Semester  Midterm Exam: Due March 5, by 11:59pm  Test dates/times: March 4, 8 am – March 5, 5pm – Using Proctor U | |
| **Week 9**  March 8-13 | The Cardiovascular & Lymphatic Systems  Quiz 06: Due March 12, by 11:59pm | Unit IX: Chapters 32-34 |
| **Week 10**  March 15-20 | The Pulmonary System  Quiz 07: Due March 19, by 11:59pm | Unit X: Chapters 35-37 |
| **Week 11**  March 22-27 | The Renal & Urologic Systems  Quiz 08: Due March 26, by 11:59pm | Unit XI: Chapters 38-40 |
| **Week 12**  March 29 - April 3 | The Digestive System  Quiz 09: Due April 2, by 11:59pm | Unit XII: Chapters 41-43 |
| **Week 13**  April 5-10 | The Musculoskeletal System  Quiz 10: Due April 9, by 11:59pm | Unit XIII: Chapters 44-46 |
| **Week 14**  April 12-17 | The Integumentary System  Multiple Interacting Systems  Discussion Board Presentation: Due April 16, by 11:59pm | Unit XIV: Chapters 47-48  Unit XV: Chapters 49-50 |
| **Week 15**  April 19-21 | Review Week | |
| Reading Days: April 22-23 | | |
| **Week 16**  April 26-30 | Final Exam: Second Half of Semester  Final Exam: Due April 27, by 11:59pm  Test dates/times: April 26, 8 am – April 27, 5pm – Using Proctor U | |

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