UNIVERSITY OF FLORIDA

COLLEGE OF NURSING

COURSE SYLLABUS

Spring 2020

COURSE NUMBER NGR 7176 sections 105F/141G/44AE

COURSE TITLE Advanced Topics in Pharmacotherapeutics & Genomics in Nursing

CREDITS 3

PLACEMENT DNP Program

PREREQUISITES NGR 6140 Physiology and Pathophysiology for Advanced Nursing Practice

NGR 6172 Pharmacotherapeutics for Advanced Nursing Practice

COREQUSITIE None

FACULTY

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COURSE DESCRIPTION

This course presents complex nursing care issues related to pharmacotherapeutics as an integral part of overall treatment. Emphasis is on evaluation research reports and discussion of current research literature in extant drug treatment and present and future developments. Focus is on the management of complex problems and issues exemplified in case studies emerging from specialty areas of nursing practice. The impact of the increased knowledge in genomics leading to personalized medicine will also be a focus of the course.

COURSE OBJECTIVES

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

1. Analyze original research reports related to pharmacological regimens in specialty areas of nursing practice.
2. Analyze specific nursing practice issues related to administrative, legal and economic aspects of pharmacological management.
3. Integrate presenting symptomatology, underlying pathophysiology and responses to pharmacological agents in specialty nursing practice including targeted therapies
4. Develop pharmacotherapeutic regimens taking into consideration desired nursing outcomes, including cost, risk, manageability of side effects, potential for adherence, and genomics.
5. Evaluate the effects of information resources on prescribing trends.
6. Evaluate the impact of personalized medicine on prescribing.

# COURSE SCHEDULE

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, please 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 available on the Friday before the first day of classes.

# TOPICAL OUTLINE

1. Pharmacogenetics/Personalized Medicine

a. Genomics

b. Targeted Therapies

1. New and projected drug developments and uses – design, methodology, and clinical testing
2. Drug interactions and polypharmacy
3. Randomized clinical trials
4. Economic issues
5. Legal and ethical issues
6. Administrative and regulatory issues
7. Drug research, development and marketing issues
8. Reading and interpreting drug research for applicability
9. Sources of public information and influences on demand for drugs
10. Special problems regarding the decision-making process for complex pharmacological management

# TEACHING METHODS

Online Modules, Case Studies, Internet and Online Resources

# LEARNING ACTIVITIES

# Papers (At a publishable level), Evaluation of Levels of Evidence, Course Quizzes

# EVALUATION METHODS/COURSE GRADE CALCULATION

Cytochrome p450 Assignment 25%

Advanced Paper 25%

Weekly Quizzes/Online Assignments 50%

Total 100%

Students can expect to receive feedback on assignments within 2 weeks of the due date.

MAKE UP POLICY

There will be no make-ups for missed quizzes. There will be a 10% deduction in points per day for late assignments unless the instructor is contacted prior to the due date about extenuating circumstances.

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: <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, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) 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.

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 <http://www.dso.ufl.edu/students.php>. 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>)

Attendance

UF Grading Policy

Religious Holidays

Counseling and Mental Health Services

Student Handbook

Student Use of Social Media

Faculty Evaluations

# REQUIRED TEXTBOOK

This course will use publicly available resources that are free to health-care providers and consumers and online library material.

Strongly Suggested for Review

Go to <http://www.cincinnatichildrens.org/education/clinical/nursing/genetics/instruction/default/>

Complete the modules on: Chromosomes, DNA and Gene presentation, Genetics is Relevant Now and Mendelian Inheritance

Graduate Level QSEN Competencies.

<http://www.aacn.nche.edu/faculty/qsen/competencies.pdf>

Recommended References: These books available through e-books on the HSC library Web site with links on the Canvas course site.

Bertino, Jr, J.S., DeVane, C.L., Furh U., Kashuba, A.D., & Ma, J.D. (2013) Pharmacogenomics:

Introduction and clinical perspective. 1st ed. New York, N.Y.: McGraw-Hill.

Brunton, L., Lazo, J. and Parker, K. (2009). Goodman and Gilman's the Pharmacological Basis

of Therapeutics. 12th ed. New York, N. Y.: McGraw- Hill.

**WEEKLY CLASS SCHEDULE**

**Advanced Topics in Pharmacotherapeutics & Genomics in Nursing**

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| --- | --- | --- |
| **DATE** | **TOPIC** | **ASSIGNMENTS/READINGS**  **(See Canvas for full assignment description)** |
| January 6 – January 11 | Course Introduction | Course Introduction  Post your Introduction Collage on the Discussion Board   * **Syllabus Quiz, Due January 11, 11:59pm EST.** |
| January 13 – January 18 | Module 01   * Evidence Based Health Care | See Canvas for objectives, readings and learning activities.   * **Module 01 Quiz Due January 18, 2019, 11:59 pm EST** |
| January 21 – January 25  January 20 – Holiday | Module 02   * Genetics | See Canvas for objectives, readings and learning activities.   * **Module 02 Quiz Due January 25, 2019, 11:59 pm EST** |
| January 27 – February 1 | Module 03   * Pharmacogenetics and Pharmacogenomics | See Canvas for objectives, readings and learning activities.   * **Module 03 Quiz Due February 1, 2019, 11:59 pm EST** * **01 Online Assignment Due February 1, 2019, 11:59 pm EST** |
| February 3 – February 8 | Module 04 - Part 1   * Cytochrome p450 Drug Interactions | See Canvas for objectives, readings and learning activities.   * **Module 04 – Part 1 Quiz Due by February 8, 2019, 11:59 pm EST** |
| February 10 – February 15 | Module 04 - Part 2   * Cytochrome p450 Drug Interactions | See Canvas for objectives, readings and learning activities.   * **Module 04 – Part 2 Quiz Due by February 15, 2019, 11:59 pm EST** |
| February 17 – February 22 | Module 05   * New and Projected Drug Development * Clinical Trials | See Canvas for objectives, readings and learning activities.   * **Module 05 Quiz Due by February 22, 2019, 11:59 pm EST** |
| February 24 – February 28 | Module 06 - Part 1   * Drug Research Development and Marketing Issues | See Canvas for objectives, readings and learning activities.   * **Cytochrome P-450 Case Study Due by February 28, 2019, 11:59 pm EST** |
| **February 29 – March 8** | **SPRING BREAK** | |
| March 9 – March 14 | Module 06 - Part 2   * Drug Research Development and Marketing Issues | See Canvas for objectives, readings and learning activities.   * **Module 06 – Part 2 Quiz Due by March 14, 2019, 11:59 pm EDT** |
| March 16 – March 21 | Module 07   * Legal/Ethical Issues | See Canvas for objectives, readings and learning activities.   * **Module 07 Quiz Due by March 21, 2019, 11:59 pm EDT** |
| March 23 – March 28 | Module 08   * Polypharmacy | See Canvas for objectives, readings and learning activities.   * **Module 08 Quiz Due by March 28, 2019, 11:59 pm EDT** |
| March 30 – April 4 | Module 09   * Complementary and Alternative Medicine | See Canvas for objectives, readings and learning activities.   * **02 Online Assignment Due by April 4, 2019, 11:59 pm EDT** |
| April 6 – April 11 | Module 10   * Clinical Decision Making in Complex Illness | See Canvas for objectives, readings and learning activities.   * **Start – Review for Advanced Paper** |
| April 13 – April 18 | Module 11 - Part 1  Controlled Substances: Prescribing, Monitoring and Abuse | See Canvas for objectives, readings and learning activities.   * **Module 10 – Part 1 Quiz, Due by April 18, 2019, 11:59 pm EDT** |
| April 20 – April 22 | Module 11 - Part 2  Controlled Substances: Prescribing, Monitoring and Abuse | See Canvas for objectives, readings and learning activities.   * **Advanced Paper, Due by April 22, 2019 by 11:59 pm EDT** |

Approved: Academic Affairs Committee: 02/05; 03/05; 06/15

Faculty: 03/05; 06/15

UF Curriculum: 02/06; 09/15