

**UNIVERSITY OF NEVADA, LAS VEGAS
SCHOOL OF NURSING**

Advanced Pharmacology and Genetics II

- I. Prefix & Number: NURS 730**
- II. Title: Advanced Pharmacology and Genetics II**
- III. Credits: 3**
- IV. Semester: Spring**
- V. Instructor: Sally K. Miller, PhD, APRN, AGACNP-BC, AGPCNP-BC, FNP-BC, FAANP**
- VI. Office Location: Distance Faculty**
- VIII. Email: skmiller41@earthlink.net**
- IX. Prerequisites: Nursing 704**

X. Course Description

Focuses on the clinical application of pharmacologic and pharmacy kinetics principles in the management of selected health problems of adults and children. Focus on drugs commonly used for adults and children in primary care settings. Focus on application of pharmacogenomics and pharmacogenetics to pharmacology.

XI. Course Objectives

By the end of the semester the student will be able to:

Course Objectives	MSN Program Outcomes
1. Demonstrate an advanced foundation in pharmacotherapeutics, pharmacodynamics, and pharmacokinetics	1. Integrate scientific findings from health and educational fields to include but not limited to nursing, social sciences, and humanities.
2. Describe drug actions, interactions and expected responses to treatment addressing life span stages	4. Utilize a systematic, scholarly approach to translate, apply, and disseminate evidence based research in clinical or educational settings.
3. Evaluate common contraindications, interactions, and adverse effects of selected medications	3. Apply continuous quality improvement measures to achieve positive outcomes in clinical or educational settings.

4. Compare and contrast administration, complexity of treatment regimen, and cost to optimize compliance and outcome.	5. Incorporate health related technologies to deliver, coordinate care, and analyze data to improve outcomes.
5. Analyze individual choices within drug classes and make appropriate determinations for therapy based upon social, cultural, and financial considerations	7. Employ culturally appropriate skills in communicating and collaborating with interdisciplinary teams to achieve positive outcomes in clinical or educational settings.
6. Discuss potentially life threatening adverse events base upon drug class	1. Integrate scientific findings from health and educational fields to include but not limited to nursing, social sciences, and humanities.
7. Discuss genetics and genomics as related to pharmacotherapy in disease.	1. Integrate scientific findings from health and educational fields to include but not limited to nursing, social sciences, and humanities.

XII. Texts, readings, and instructional resources

▪ Required Texts

Jorde, L. B., Carey, J. C., & Bamshad, M. J. (2009). *Medical genetics* (4th ed.). St. Louis, MO: Mosby. ISBN: 978-0323053730

Katzung, B.G., & Trevor, A.J. (2014). *Basic and clinical pharmacology* (13th ed.). NY: McGraw Hill Co.

Whalen, K. (2014). *Lippincott Illustrated Reviews: Pharmacology* (6th ed.,). Philadelphia: Lippincott, Williams & Wilkins.

▪ Recommended Texts

Stringer, J.L. (2011). *Basic concepts in pharmacology: A student's survival guide* (4th ed.). NY: McGraw-Hill Co.

▪ Additional Readings

Selected readings in course

▪ Description of Instructional Procedures

TEACHING STRATEGIES:

A web-based, on-line delivery format will be used. Content is organized into weekly units that will include narrated lectures, links to pertinent web sites, multimedia illustrations as appropriate, and case studies. Interaction will be asynchronous. Weekly postings are required, and a midterm and final examination will be made available to the student for independent completion and submission via Webcampus.

XIII. Assignments, evaluation procedures, and grading policy

EVALUATION METHODS:

Each weekly exercise and both examinations will be assigned a maximal point value. Course grade will be determined based upon the number of points that the student earns divided by the number of points possible.

A weekly assignment is required of each student for each module, and each entry is worth 10 points.

Weekly assignments will constitute a significant portion of the course grade. Points are awarded based upon the quality, depth, and technical accuracy of the response for case studies. Objective multiple choice quizzes may be also be used for weekly assignments.

Weekly assignments should focus upon the pharmacodynamics of the scenario. While healthcare providers do provide holistic and comprehensive patient management, the focus of this course is on pharmacodynamics. **Weekly case study responses that address patient management do not need to include non-pharmacologic components. Grade will be assigned based upon the demonstrated knowledge of pharmacodynamics -- no "extra credit" will be given for lengthy, non-pharmacologic strategies.**

A mid-term examination will be posted in the middle of the course, and a final examination will be posted after the last unit is completed. These are individual exercises -- *there should be no discussion between or among class members about the exams.*

At the end of the course, the number of points earned will be divided by the number of points possible (10 per weekly unit and 100 each per mid-term and final examinations). This will determine the course grade. See example next page.

Example

Weekly Unit	Points Earned
1	10 of 10 possible
2	10 of 10 possible
3	8 of 10 possible
4	9 of 10 possible
5	10 of 10 possible
6	9 of 10 possible
7	Midterm Exam 88 of 100 possible
8	7 of 10 possible
9	10 of 10 possible
10	10 of 10 possible
11	9 of 10 possible
12	9 of 10 possible
13	8 of 10 possible
14	Final Exam 99 of 100 possible

Total Possible = 320

Total Earned = 296

Grade = $296/320 = 92.5\%$

Course Grade = A-

Grading: The course grading scale follows the approved scale of the School of Nursing. As per School of Nursing policy, there is no rounding (up or down) or scores; thus, a grade of 89.99% will be recorded as 89%. A minimum of a “B” grade (83%) is required to satisfactorily complete the course.

A	93-100	B-	80-82	D+	68-69
A-	90-92	C+	78-79	D	63-67
B+	88-89	C	75-77	D-	60-62
B	83-87	C-	70-74	F	Below 59

Incomplete Grade:

An incomplete grade (“I”) may be granted when a student has satisfactorily completed at least 75% of the semester coursework; but, for a reason(s) beyond the student’s control, and acceptable to the instructor, cannot complete the remaining coursework. Also, the instructor must have concluded that the student is capable of completing the course without repeating. A student who receives a grade of “I” is responsible for making up whatever coursework was lacking from the total required during the semester. The “I” must be made up within one year of receiving that grade and according to a written time schedule determined by the instructor in consultation with the student. If course requirements are not completed within the time indicated and within Graduate College policy, a grade of “F” will be recorded with the office of the Registrar for the course. Students completing work from an “I” do not re-register for the course, but make individual arrangements with the instructor who assigned the “I” grade. Students are directed to review this policy in the current Graduate College Catalogue.

General Course Policies – School of Nursing

CONFIDENTIALITY:

An important part of nursing ethics is maintaining the client’s confidentiality. Therefore, written work submitted to the instructor must NEVER contain the client’s full name. Client’s problems must not be discussed with family or friends. If the Department ascertains that a client’s confidentiality has been violated, the student violating the confidence will be subjected to disciplinary action.

CONSENSUAL RELATIONSHIPS:

UNLV prohibits romantic or sexual relationships between members of the university community when one of the individuals involved has direct professional influence or direct authority over the other. For further information, see <http://hr.unlv.edu/policies/consensual.html>

ACADEMIC DROP POLICY:

A student who is registered for a course may drop that course (and receive no grade) on or before the day when 60% of the course is completed. The registrar determines the exact date. After this point, no drops will be allowed even with the instructor’s permission. Please check the course schedule (online) for this date.

LATE ASSIGNMENTS:

Late work will **not** be accepted. Students who turn in late work, post late to discussions or who do not turn in assigned work will be given a zero on the assignment. There are no exceptions. If a student has an emergency or extenuating circumstance, please be in touch with the course instructor as soon as possible to have granted extensions on assigned work. Notifications for request of extension should be sent to the instructor via WebCampus email only. Student **may not** leave a voice message or email at any other mailbox (Rebel mail, UNLV mail). Students are responsible for knowing the UNLV time zone and being aware that assignments are due to this course in Pacific Time.

Getting Help in WebCampus

<http://oit.unlv.edu/help/webcampus>

You can call the Help Desk: 702-895-0761 if you have questions or need support.

XIV. Weekly Schedule

Week 1 (1/4-1/10) – Pharmacodynamics/Pharmacogenetics

Week 2 (1/11/1-17) – Pediatric Pharmacokinetics

Week 3 (1/18-1/25) – Lipid pharmacology

Week 4 (1/25-1/31) – Cardiovascular pharmacology

Week 5 (2/1-2/7) – Neuropharmacology

Week 6 (2/8-2/14) – Pulmonary pharmacology

Week 7 (2/15-2/21) – **Midterm examination**

Week 8 (2/22-2/28) – Pain management pharmacology

Week 9 (2/29-3/6) – Gastrointestinal pharmacology

Week 10 (3/7-3/13) – Antibacterial pharmacology

Week 11 (3/14-3/20) – Antiviral and antifungal pharmacology

SPRING BREAK (3/21-3/27)

Week 12 (3/28/4/3) – Pharmacology of diabetes mellitus

Week 13 (4/4-4/10) – Pharmacology of thyroid disorders

Week 14 (4/11-4/17) – **Final examination**

XV. Standard Provost's Statements

Each semester the most recent University Policies, as identified by the office of the Provost, will be included.

UNIVERSITY POLICIES:

Academic Misconduct – Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: <http://studentconduct.unlv.edu/misconduct/policy.html>.

Copyright – The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws.

Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://www.unlv.edu/provost/copyright>.

Disability Resource Center (DRC) – The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor before or after class to discuss your accommodation needs.

Religious Holidays Policy – Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the end of the first two weeks of classes, **September 22, 2015** of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=6&navoid=531>.

Incomplete Grades - The grade of I – Incomplete – can be granted when a student has

satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade. Please note – Students cannot enroll in other nursing courses if they have an incomplete (I) in a course that is designated as a prerequisite to that course. (Per School of Nursing Policy C-12).

Tutoring – The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling 702- 895-3177 or visiting the tutoring web site at: <http://academicsuccess.unlv.edu/tutoring/>.

UNLV Writing Center – One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>

Rebelmail – By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. Emailing within WebCampus is acceptable.

Library Resources –Students may consult with a librarian (<https://www.library.unlv.edu/consultation>) about research needs. For this class, the subject librarian is Xan Goodman. UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at <https://www.library.unlv.edu/>