

**UCC/UGC/ECCC**

Proposal for New Course

***Please attach proposed Syllabus in*** [***approved university format***](http://www4.nau.edu/avpaa/UCCForms/syllabus.doc)***.***

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| --- | --- | --- | --- |
| 1. Course subject and number: | **NUR 371** | 2. Units: | **3** |

[**See upper and lower division undergraduate course definitions.**](http://www4.nau.edu/avpaa/UCCPolicy/Uplow.doc)

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| 3. College: | **Health and Human Services** | 4. Academic Unit: | **Nursing** |

5**.** Student Learning Outcomes of the new course. *(*[*Resources & Examples for Developing Course Learning Outcomes*](http://www4.nau.edu/avpaa/Assessment/CourseLearningOutcomesPDF_090712.pdf)*)*

**By the end of the course, the student will:**

**Clinical Practice and Prevention**

* **Identify patient-related factors across the lifespan that affect drug activity and patient response.**
* **Describe the principles of safe medication administration.**
* **Calculate correct dosage for one-factor medication problems.**
* **Describe major drug categories, including actions, common side effects, adverse reactions.**
* **Explain the basics of pharmacodynamics and pharmacokinetics related to human pathophysiologic processes**
* **Describe the pathophysiologic factors and nursing implications related to pharmacologic treatment of selected health conditions.**

**Communication**

* **Summarize principles of professional communication related to safe medication administration.**
* **Discuss principles of professional communication relevant to patient education.**

**Critical Reasoning**

* **Demonstrate the ability to utilize resources effectively in the administration of medications.**
* **Summarize nursing implications of pathophysiology and pharmacology by using the nursing process as a framework.**
* **Identify the physiological and pathophysiological processes and interactions between the major drug categories and selected health conditions.**

**Leadership**

* **Describe professional nursing responsibilities in ensuring safe and appropriate patient-centered care.**

**Professionalism and Professional Values**

* **Describe the legal and ethical implications for professional nurses in the safe administration of pharmacologic agents.**

**Global Health**

* **Recognize variations in patient pathophysiologic response to pharmacologic treatments that may occur in individuals of across the lifespan, between genders, and among diverse populations.**
* **Incorporate knowledge of developmental, gender, genetic, economic, and other influences on pharmacologic treatments.**
* **Discuss proper disposal of medication waste across settings.**

6. Justification for new course, including how the course contributes to degree program outcomes, or other university requirements / student learning outcomes. *(*[*Resources, Examples & Tools for Developing Effective Program Student Learning Outcomes*](http://www4.nau.edu/avpaa/Assessment/ProgramLearningOutcomesPDF_090712.pdf)*).*

**The NAU School of Nursing is revising the traditional baccalaureate curriculum in an effort to improve graduate outcomes on the NLCEX-RN examination related to pathophysiology and in response to student feedback statewide requesting live instruction for these two courses.**

**Currently students in the first semester of the NAU traditional baccalaureate nursing program take two separate, yet concurrent three credit hour courses NUR 215 (Pharmacology) and BIO 320 (Pathophysiology). We are proposing that these courses be merged & taken in succession during the first semester of the traditional baccalaureate nursing program. Creation of these two courses does not change the total number of credit hours or the number of credit hours a student takes during the first semester. Concepts and content explored in Pathophysiology & Pharmacology for Nursing Practice II will build upon the content and concepts explored in Pathophysiology & Pharmacology for Nursing Practice I.**

**The design of these two new courses is expected to enhance student competence, critical thinking, understanding and nursing application of the intertwined concepts between human pathophysiology and the intended effects of pharmacological agents. Currently NUR 215 and BIO 320 are offered in online formats. It is the intention of the NAU School of Nursing to incorporate a hybrid learning model that would include online and face-to-face instruction on each NAU School of Nursing campus for both newly created courses. This blended method of course delivery is being proposed directly in response to student requests for live instruction for pharmacology and pathophysiology content.**

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| 7. Effective **BEGINNING** of what term and year? | **Fall 2014** |  |
| [**See effective dates calendar**](http://www4.nau.edu/avpaa/timelines/1314Effective.xls)**.** |  |  |

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| 8.  Long course title: | **PATHOPHYSIOLOGY AND PHARMACOLOGY FOR NURSING PRACTICE I** |
| *(max 100 characters including spaces)* | |

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| --- | --- |
| 9. Short course title: | **PATHOPHARM I** |
| *(max. 30 characters including spaces)* | |

10. Catalog course description *(max. 60 words, excluding requisites):*

**Course 1 of 2: foundations of human pathophysiology and pharmacology for nursing practice. Emphasis is on the knowledge base required for a safe, evidence-based practice of medication administration in nursing. Students will demonstrate an understanding of the interrelatedness of pathophysiology and pharmacokinetics related to medication administration including dosage calculations. Course 1 focuses on the pharmacokinetic principles and related pathophysiologic processes for specific medication categories and the body systems they affect.**

11. Will this course be part of any plan (major, minor or certificate) or sub plan (emphasis)?

                                                                                                                                    Yes  No

If yes, include the appropriate plan proposal.

12. Does this course duplicate content of existing courses? Yes  No

If yes, list the courses with duplicate material. If the duplication is greater than 20%, explain why NAU should establish this course.

**This course integrates the content of BIO 320 and NUR 215 in order to remove redundancy and improve teaching consistency.**

13. Will this course impact any other academic unit’s enrollment or plan(s)?              Yes  No

      If yes, describe the impact. If applicable, include evidence of notification to and/or response from

each impacted academic unit

**See attached notification to the BIO department.**

14. Grading option:      Letter grade Pass/Fail Both

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| 15. Co-convened with: |  | 14a. UGC approval date\*: |  |
| (For example: ESE 450 and ESE 550) [See co-convening policy](http://www4.nau.edu/avpaa/UCCPolicy/crosslist.doc).  \*Must be approved by UGC before UCC submission, and both course syllabi must be presented. | | | |

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| 16. Cross-listed with: | |  | | |  | | | | | |
| (For example: ES 450 and DIS 450) [See cross listing policy](http://www4.nau.edu/avpaa/UCCPolicy/crosslist.doc).        Please submit a single cross-listed syllabus that will be used for all cross-listed courses. | | | | | | | | | | |
| 17. May course be repeated for additional units? | | | |  | | | | Yes     No | | |
| 16a. If yes, maximum units allowed? | | |  | | |  | | | | |
| 16b. If yes, may course be repeated for additional units in the same term? | | | | | | | | |  | Yes     No |
| 18. Prerequisites: | **Admission to the nursing program.** | | | | | |  | | | |

If prerequisites, include the rationale for the prerequisites.

**Course limited to selected cohort of students.**

|  |  |  |
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| 19. Co requisites: | **NUR 330, NUR 205, NUR 205L, NUR 214, NUR 214L** |  |

If co requisites, include the rationale for the co requisites.

**These are required first semester courses that the student must complete to progress through the program.**

20. Does this course include combined lecture and lab components?                   Yes  No

If yes, include the units specific to each component in the course description above.

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| 21. Names of the current faculty qualified to teach this course: | **Donna Sutton, MSN, CNS, CNE** |

22. Classes scheduled before the regular term begins and/or after the regular term ends may require

additional action.  Review “see description” and “see impacts” for “Classes Starting/Ending

Outside Regular Term” under the heading “Forms”

<http://nau.edu/Registrar/Faculty-Resources/Schedule-of-Classes-Maintenance/>.

Do you anticipate this course will be scheduled outside the regular term?   Yes  No

**Answer 22-23 for UCC/ECCC only:**

23. Is this course being proposed for Liberal Studies designation?             Yes  No

       If yes, include a [Liberal Studies proposal](http://www2.nau.edu/~d-ugstdy/_source/docs/LS_Proposal_form.doc) and syllabus with this proposal.

24. Is this course being proposed for Diversity designation?Yes    No

       If yes, include a [Diversity proposal](http://www4.nau.edu/avpaa/EthDiv/Divform2010.doc) and syllabus with this proposal.

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| **FLAGSTAFF MOUNTAIN CAMPUS** |  |
| **Scott Galland** | **11/6/2013** |
| Reviewed by Curriculum Process Associate | Date |
|  |  |
| **Approvals**: |  |
|  |  |
| Department Chair/Unit Head (if appropriate) | Date |
|  |  |
| Chair of college curriculum committee | Date |
|  |  |
| Dean of college | Date |
|  |  |
| **For Committee use only:** |  |
|  |  |
| UCC/UGC Approval | Date |

Approved as submitted: Yes  No

Approved as modified: Yes  No

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| **EXTENDED CAMPUSES** |  |
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| Reviewed by Curriculum Process Associate | Date |
|  |  |
| **Approvals:** |  |
|  | |
| Academic Unit Head | Date |
|  | |
| Division Curriculum Committee (Yuma, Yavapai, or Personalized Learning) | Date |
|  | |
| Division Administrator in Extended Campuses (Yuma, Yavapai, or Personalized Learning) | Date |
|  | |
| Faculty Chair of Extended Campuses Curriculum Committee (Yuma, Yavapai, or Personalized Learning) | Date |
|  | |
| Chief Academic Officer; Extended Campuses (or Designee) | Date |
|  |  |

Approved as submitted: Yes  No

Approved as modified: Yes  No

**From:** Maribeth Watwood   
**Sent:** Wednesday, November 06, 2013 10:50 AM  
**To:** Stuart S Galland  
**Cc:** Teresa Del Vecchio Lane  
**Subject:** RE: Proposed changes to the Nursing BSN (traditional)

Got it – Thanks!

Maribeth Watwood, Ph.D.

Chair, Department of Biological Sciences

Northern Arizona University

Flagstaff, AZ 86011-5640

**From:** Stuart S Galland   
**Sent:** Wednesday, November 06, 2013 10:50 AM  
**To:** Maribeth Watwood  
**Subject:** RE: Proposed changes to the Nursing BSN (traditional)

Hi,

No action required.  The course content (along with NUR 215) is being merged into two new courses; NUR 371, 373

Scott Galland

Curriculum Process Associate

Office of Curriculum, Learning Design, and Academic Assessment

928-523-1753

928-699-9147 (cell)

[scott.galland@nau.edu](mailto:scott.galland@nau.edu)

**From:** Maribeth Watwood   
**Sent:** Wednesday, November 06, 2013 10:47 AM  
**To:** Stuart S Galland  
**Cc:** Teresa Del Vecchio Lane  
**Subject:** RE: Proposed changes to the Nursing BSN (traditional)

Hi Scott – Is there any action required on my part?  Do you know why they want to remove the requirement?  Thank you kindly! Mb

Maribeth Watwood, Ph.D.

Chair, Department of Biological Sciences

Northern Arizona University

Flagstaff, AZ 86011-5640

**From:** Stuart S Galland   
**Sent:** Wednesday, November 06, 2013 10:46 AM  
**To:** Maribeth Watwood  
**Subject:** Proposed changes to the Nursing BSN (traditional)

HI Maribeth,

This message is to notify you that the Nursing department is proposing to remove BIO 320 from the BSN requirements.

Thank you,

Scott Galland

Curriculum Process Associate

Office of Curriculum, Learning Design, and Academic Assessment

928-523-1753

928-699-9147 (cell)

[scott.galland@nau.edu](mailto:scott.galland@nau.edu)



**College**: College of the Health and Human Services

School of Nursing

**Course Number**: NUR 371

**Course Title**: Pathophysiology & Pharmacology for Nursing Practice I

**Semester**: Fall and Spring

**Credit Hours/Clock Hours**: 3 credits/ 8 weeks (6 contact hours/week)

**Faculty:**

Donna Sutton, MSN, CNS, CNE

Associate Clinical Professor

Office Address: NAU, School of Nursing, Room 207

PO Box 15035

Flagstaff, Arizona 86011

Pager: 928-913-6881

Fax: 928-523-7171

Office Hours: TBA

**Course Prerequisite:**

Admission to the nursing program.

**Co-requisites:**

NUR 330, NUR 205, NUR 205L, NUR 214, NUR 214L

***Course Description***

Course 1 of 2: foundations of human pathophysiology and pharmacology for nursing practice. Emphasis is on the knowledge base required for a safe, evidence-based practice of medication administration in nursing. Students will demonstrate an understanding of the interrelatedness of pathophysiology and pharmacokinetics related to medication administration including dosage calculations. Course 1 focuses on the pharmacokinetic principles and related pathophysiologic processes for specific medication categories and the body systems they affect.

**Course Format**

A “flipped classroom” concept is used for this course. Each week the student will be responsible for asynchronous content including reading, videos, quizzes, exams, and other content as needed. In addition, a weekly or bi-weekly live activity session will be held on campus. The live sessions will include learning activities such as case study, presentations, role playing, group work, care planning, and concept mapping. While the faculty will provide guidance and consultation, the student is responsible for identification of learning needs, self-direction, seeking consultation and demonstration of course objectives.

**Student Learning Outcomes**

By the end of the course, the student will:

**Clinical Practice and Prevention**

* Identify patient-related factors across the lifespan that affect drug activity and patient response.
* Describe the principles of safe medication administration.
* Calculate correct dosage for one-factor medication problems.
* Describe major drug categories, including actions, common side effects, adverse reactions.
* Explain the basics of pharmacodynamics and pharmacokinetics related to human pathophysiologic processes
* Describe the pathophysiologic factors and nursing implications related to pharmacologic treatment of selected health conditions.

**Communication**

* Summarize principles of professional communication related to safe medication administration.
* Discuss principles of professional communication relevant to patient education.

**Critical Reasoning**

* Demonstrate the ability to utilize resources effectively in the administration of medications.
* Summarize nursing implications of pathophysiology and pharmacology by using the nursing process as a framework.
* Identify the physiological and pathophysiological processes and interactions between the major drug categories and selected health conditions.

**Leadership**

* Describe professional nursing responsibilities in ensuring safe and appropriate patient-centered care.

**Professionalism and Professional Values**

* Describe the legal and ethical implications for professional nurses in the safe administration of pharmacologic agents.

**Global Health**

* Recognize variations in patient pathophysiologic response to pharmacologic treatments that may occur in individuals of across the lifespan, between genders, and among diverse populations.
* Incorporate knowledge of developmental, gender, genetic, economic, and other influences on pharmacologic treatments.
* Discuss proper disposal of medication waste across settings.

**Textbook and required materials**

Heuther, S.E. & McCance, K. L. (2012). *Understanding pathophysiology* (5th ed.). St. Louis, MO: Elsevier, Mosby.

Text: ISBN: 978-0323078917; Online resources: ISBN: 978-0323084901; E-book: ISBN: 978-0323136082

Lehne, R. A. (2013). *Pharmacology for nursing care* (8th ed.). St. Louis, MO: Elsevier, Mosby.

Text: ISBN: 978-1437735826; Online resources: 978-1455725472; E-book: ISBN: 978-1455754328

Wilson, B. A., Shannon, M. T., & Shields, K.(2014). *Pearson nurse’s drug guide 2014*. Upper Saddle River, NJ: Pearson Prentice Hall. Text: ISBN: 978-0133355529, Kindle edition available

Craig, G. P. (2012). *Clinical calculations made easy: Solving problems using dimensional analysis* (5th ed.). Philadelphia, PA: Wolters Kluwer Health.

Text: ISBN: 978-1608317905, Kindle edition available

**Online Requirements**

* Blackboard Learn: <http://bblearn.nau.edu>

**Recommended/Optional:**

* Kaplan Resources: <https://kaplanlwwtesting.kaplan.com/s_login.aspx> Practice questions in the NCLEX format for pharmacology topics.

***Course outline***

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| --- | --- |
| **Pharmacology Content**  Week | **Pathophysiology Content** |
| 1. Orientation to course | 1. Orientation to course |
| 1. Nursing perspectives, over the counter, herbals  * Calculations – basic conversions | 1. Cellular biology 2. Genes and genetic diseases 3. Altered cellular and tissue biology |
| 1. Anti-infective medications (chemotherapy of infectious diseases) | 1. Innate immunity: Inflammation and wound healing 2. Adaptive immunity 3. Infection and defects in mechanisms of defense |
| 1. Fluid balance, electrolyte 2. Gastrointestinal  * One factor medication problems | 1. Fluids and electrolytes, acids and bases 2. Digestive system |
| 1. Neurologic and neuromuscular | 1. Structure and function of the neurologic system 2. Alterations in cognitive systems, cerebral hemodynamics and motor function 3. Disorders of the central and peripheral nervous systems and neuromuscular junction |
| 1. Drugs that affect the heart and blood vessels part 1  * Hemodynamics, RAAS, calcium channel blockers, vasodilators, drugs for HTN, heart failure, drugs that normalize cholesterol and triglyceride levels | 1. Structure and function of the CV and lymphatic system 2. Alterations of CV function part 1  * HTN, hypotension, aneurysm, thrombus formation, embolism, atherosclerosis, PAD, heart failure |
| 1. Drugs for anemias and hematopoietic agents  * Hemophilia, deficiency anemias, hematopoietic agents | 1. Structure and function of the hematologic systems 2. Alterations of hematologic function |

**Assessment of Student Learning Outcomes**

* Weekly Content 50%
* Calculation Quizzes 20%
* Classroom Activities 30%

**Grading System**

A = 93 +%

B = 84 – 92%

C = 78 – 83% (A grade of "C" or above is a passing grade in this course).

F = <78%

**Course Policies**

**Retests/makeup tests**

* Online quizzes are offered only during scheduled weeks, but are open for the week. Alternate scheduling of a quiz will be provided only in **extraordinary** circumstances and require arrangements with faculty prior to scheduled quiz date. **There are no re-tests**.

**Attendance Policy**

Successful achievement of course outcomes is facilitated by regular class attendance and active engagement in the online and live learning environments. Should an absence be unavoidable, the student shall notify the instructor according to instructions provided in the course syllabus. Students are responsible for completion of any missed work in accordance with course policies.

**Withdrawal Policy**

If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course before the withdrawal deadline (see current NAU Schedule of Classes for deadline).

**Plagiarism, Cheating, and Academic Dishonesty:**

Please refer to Appendix G of the NAU Student Handbook (<http://home.nau.edu/images/userimages/awf/9476/ACADEMIC%20DISHONESTY.pdf>) for definitions, policies, penalties, and procedures related to various forms of academic dishonesty.

**School of Nursing Policies**

<http://nau.edu/uploadedFiles/Academic/CHHS/Nursing/BSN_Handbook.pdf>

## University Policies

Review the following policies available on the Northern Arizona University Policy Statement website (<http://www2.nau.edu/academicadmin/UCCPolicy/plcystmt.html>):

1. Safe Environment Policy
2. Students with Disabilities Policy
3. Institutional Review Board Policy
4. Academic Integrity Policy (also see <http://home.nau.edu/images/userimages/awf/9476/ACADEMIC%20DISHONESTY.pdf>
5. Academic Contact Hour Policy
6. Sensitive Course Materials Policy

The Impaired Student policy will be strictly adhered to; there will be no tolerance in for any evidence of substance abuse.