** End of Semester Course Report**

Health Science and Human Service Department

Associate of Applied Science in Nursing Program

**Directions:** Complete and forward to the Dean of Health Science (cc to the administrative assistant).

1. Course Number and Name: NURS 154- Introduction to Pharmacology
2. Semester/Year 2021 Spring Fall X Summer

3. Course Faculty (include any adjunct faculty utilized): Michelle Husbands/ Staci Warnert

**COURSE STATISTICS**

4. Theory Ratio 41 : 1 Clinical Ratio N/A : Simulation Ratio N/A :

(Faculty to student ratios: Please use the number of students at the beginning of the semester for these.)

1. Final Theory Outcomes:
   1. Percent Passed 97% (36 students)
   2. Percent Failed: 3% (1 student)
   3. Range of Scores: 75.97% – 97.15%
2. Final Clinical Outcomes:
   1. Percent Satisfactory: N/A
   2. Percent Unsatisfactory: N/A
3. Course Attrition:
   1. Beginning number of students: 41
   2. Withdrawals: 4
   3. Incompletes (with expected date of completion): \_\_\_\_\_0\_\_\_\_\_\_
4. Dosage Calculation Test:
   1. First attempt pass # N/A
   2. Second attempt pass # N/A
   3. Third attempt pass # N/A
   4. A & P committee recommendation: N/A
5. ATI Exams

|  |  |
| --- | --- |
| ATI Test bank questions | When tested during semester |
| Module Quizzes | 9/9/21 (#1); 9/22/21 (#2); 10/5/21 (#3); 10/26/21 (#4); 11/16/21 (#5); 11/30/21 (#6)  M  M |
| Custom Built Midterm Exam (Revised – Fall 2021) | 10/12/21; Score range – 68% - 97% (Average - 84%) Uploaded to WebCampus |
| Custom Built Final Exam (Revised – Fall 2021) Version 2 of Final Exam (Created – Fall 2021, 48% the same as original, 25% changed, 27% tweaked) | 12/16/21; Score range – 74% - 97% (Average – 86%) Uploaded to WebCampus |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ATI Final Proctored Exams** | **Group Scores** | | | |
| Administered 3rd semester in NURS 257 initiated in Fall 2016 (see NURS 257 course report) | Current Semester 2021  83.5% | Previous Semester 2020  80.3% | Previous Semester Year 2019  82% | Previous Semester Year 2018  81.5% |

**Any issues identified**: (i.e. are group scores higher or lower than previous semesters).

Per NURS 154 syllabus, for three module quizzes or one midterm or one final exam scored < 76%, students will receive a notification of unsatisfactory progress. During the Fall 2021 semester, fourteen (14) students received a notification of unsatisfactory progress with recommendations/resources for improving academic performance for one the following: scoring < 76% on three module quizzes (n = 5); the midterm exam (n = 3) or the final exam (n = 10). Module quizzes were weighted at 11.6% each vs. the midterm 5% and the final 5%. Percentage weights were changed mid-semester to rectify this discrepancy. Need to make sure weights are closely looked at before course start. If module quizzes are to be weighted heavier students need to test on a GBC computer and the course needs to be scheduled as such.

**THEORY EVALUATION**

1. Theory Evaluation: Each online ATI module offers information on classifications of medications, medication safety & alerts, adverse effects, contraindications, side effects, nursing interventions, client education, and drug/food interactions. In addition, ATI modules provide the students with 10 drills questions, a 25-question module test and a corresponding patient case study to apply newly acquired knowledge. Students are provided with medication resources from QSEN, WHO, and ANA Standards of Practice, and NCLEX Connections related to medication safety. To enhance critical thinking skills the following is provided: the rationale for administering various medication; case scenarios for in class discussion; module assignments; and a group assignment to produce a commercial for consumer education.
2. Brief synopsis of how ATI tools and/or materials were used in the course:

ATI provides students with consistency in theory information with an overview of anatomy and physiology, the mechanism of action (pharmacokinetics/dynamics) involved with the medication classification, adverse effects, interactions, and contraindications and nursing considerations of medication administration. There is a total of 11 module in ATI that addresses medications used for various illnesses/disease processes, medication safety, dosage calculation and IV therapy. Of the total 11 ATI modules, 6 modules are studied in NURS 154. They include: Unit 1- Pharmacological Principles; Unit 3- Medications Affecting the Respiratory System; Unit 6 Medications Affecting the Gastrointestinal System and Nutrition; Unit 8 Medications for Bone and Joint Conditions; Unit 9- Medications for Pain and Inflammation; and Unit 12- Medications for Infection.

Each Module was completed over a two-week time frame with the expectation that students review the ATI content (i.e. case studies, drills and post-test) and submit an ATI transcript prior to class, so in-class time is reserved for discussion. During the 75-minute of class discussion, the ATI Drug Information Tables were referred to highlighting key information. Prior to each module quiz, the mid-term exam and the final exam, the students were offered time at the beginning of class for review and/or answer questions. Students were tested in proctored computer labs/areas at all four (4) centers (Elko, Ely, Pahrump & Winnemucca) for the mid-term and final exams.

1. Special Experiences related to student learning outcomes and competencies:

Student groups selected a prototype drug to develop a video commercial for a class presentation. Students were assigned groups of 2-5 members. This assignment required students to be creative and encouraged the use of advance technology to produce realistic commercials. Larger, assigned groups were used for the commercial due to COVID-19 restrictions. Continue with smaller groups next semester and let students self-select their group members. The commercial was uploaded into eValue as an example of the student’s work for this course.

1. Teaching Methods: Majority of the course is self-directed from the ATI Pharmacology online website that included videos, drills, key points, and a unit test for each module. Students met with the instructor in-class or Zoom video conferencing once a week for 75 minutes to review information, answer questions, and applied information to in-class activites. The two main teaching methods included online and in-class lecture/power point presentation/discussion. Additional resources include uploading YouTube videos (NURSE Mike & Cathy Parks, RN) and pharmacology phone apps: NCLEX RN Mastery & ATI Pharmacology. One student specifically stated these additional resources were helpful.
2. Textbooks used and evaluation of each:

ATI “RN Pharmacology for Nursing” (8.0 edition) was the main text used. Davis Drug Guide (16th ed.) was used as a secondary resource. “Pharmacology Success: A Q&A Review” by Hargrove-Huttel & Colgrove, was a recommended source if the student desired to purchase that provided NCLEX style questions to help test their understanding pharmacology.

The corresponding ATI textbook outlined, simplified and supplemented the information provided on the online ATI modules. The corresponding ATI textbook was supplied to students and included in the cost of ATI online program. Although the information is summarized, this text was helpful in learning key points on ATI. The ATI Pharmacology text is designed to fit the program and basic pharmacology information. ATI uses NCLEX style questions also.

1. Weekly content: See attached syllabus

**CLINICAL EVALUATION**

Clinical Site Evaluation: Include EBP, Patient Health & Safety and ANA Standards

(Please list strengths and/or limitations specific to each site)

Not applicable. NURS 154: Pharmacology Made Easy is a one (1.0) credit theory course only. No clinical component is included during this course.

1. Briefly describe any concern(s) regarding clinical site(s) used. Not applicable
2. Special Experiences related to student learning outcomes and competencies:

The production of a student group commercial addressing a medication learned during the course met student learning outcome 2 A and B on the NURS 154 curriculum map. (See curriculum map)

1. Teaching Methods – Not applicable

**FULL COURSE OVERVIEW**

1. What worked well and reason(s):
2. Uploading additional resources: YouTube videos (NURSE Mike & Cathy Parks, RN) and pharmacology phone apps: NCLEX RN Mastery & ATI Pharmacology. These resources supported the information presented in the online ATI module and in-class discussions, plus the YouTube videos offered a fun and entertaining method (mnemonics) for learning classification of medications.
3. Development of a new assignment for each module that includes more application of critical thinking/clinical judgment and reasoning. On the course evaluations several students stated they learned from the weekly assignments and helped them understand the different medications.
4. Integrating one (1) additional question to the 20-item module quizzes, 50-item midterm, and 50-item final exam. The addition of one extra question provided the potential to pass the quiz/exam (>76%) increasing motivation
5. Awarded 1 to 4 points for number of hours (maximum of 4 hours) student spent online in the assigned ATI module and completion of the module post-test with 76% or greater in order to be prepared for an interactive in-class discussion (80% agreed). Students were required to upload an ATI transcript showing the recorded number of hours on ATI and the post-test scores into WebCampus prior to class.
6. Using the ATI Drug information tables for in-class discussion was beneficial in the student’s learning and helps to highlight key concepts.
7. Adjusted the weighted percentages of the module quizzes, midterm, and final exams. This did not put so much weight on each module quiz and allowed for the midterm and final exams to weigh more heavily on the final grade. If module quizzes are to be weighted more than 5-6% of the grade then recommend scheduling this course in the computer lab to ensure students are testing on a GBC issued computer.
8. Several students were timing out on the module quizzes when taking them. Giving additional time per question (approximately 1.7 min per question) seemed to assist students with reading these questions. Pharmacology and drug information related questions are difficult for beginning learners, so allowing additional time seemed to ease students’ fears with being able to read through and answer the questions. Plan to evaluate time for module quizzes 2-6 and account for bonus question and time for alternative questions (matching).
9. Anticipated Changes

For Fall 2022, add in an assignment related to medication safety at a systematic level. See Linda Caputi’s book p. 210. Review module assignment rubrics and commercial rubric to ensure clear grading. Reevaluate weighted percentages for each section and match the syllabus. The final was given during finals week due to faculty illness. Plan to give final the week before finals week as originally scheduled.

22. Clinical changes and reason(s): Not applicable - No clinical hours for this course

Other changes and reason(s):

23. NURS 154 - Pharmacology Student Learning Outcomes (SLOs) Survey Fall 2021 – 29 of 37 students (78.37%) completed the survey.

Q1 Describe the theoretical basis of pharmacology that contributes to safe, quality, patient-centered care incorporating developmentally and culturally appropriate interventions. 93% of the students (n = 28) ‘strongly agreed’ or ‘agreed’ and 7% of the students (n = 2) ‘strongly disagree’ that the SLO #1 was met.

Q2 Describe how the nurse uses clinical reasoning related to all aspects of medication administration to promote desired patient outcomes. 93% of the students ‘strongly agreed’ or ‘agreed’ and 7% of the students (n = 2) ‘strongly disagree’ that the SLO #2 was met.  
  
Q3 Explain teamwork to improve patient outcomes related to medication administration. 93 % of the students (n = 28) ‘strongly agreed’ or ‘agreed’ and 7% of the students (n = 2) ‘strongly disagree’ that the SLO #3 was met.

Q4 Explain legal aspects of medication administration. 93% of the students (n = 28) ‘strongly agreed’ or ‘agreed’ and 7% of the students (n = 2) ‘strongly disagree’ that the SLO #4 was met.  
  
Q5 Explain the use of information systems and technology when administering medications. 93% of the students (n = 28) ‘strongly agreed’ or ‘agreed’ and 7% of the students (n = 2) ‘strongly disagree’ that the SLO #5 was met.

24. Administrative:

* 1. The course was backed up on Web Campus.
  2. Grades have been entered.
  3. Grade book has been printed and filed.
  4. Instructed student to upload sample of their work samples

into eValue

* 1. Student clinical care packets have been filed. N/A
  2. Curriculum map has been updated with all changes made

and filed with appropriate ACEN report.

* 1. Integrated Concepts Illustration has been updated with

all changes made and filed with appropriate ACEN report.

* 1. Test blueprint attached with course report

**Faculty Signature(s)** Michelle Husbands (Electronic Signature) *Staci Warnert*

**Date:** Completed 01/14/2022