

Washtenaw Community College Comprehensive Report

NUR 115 Pharmacology Effective Term: Spring/Summer 2020

Course Cover

Division: Health Sciences

Department: Nursing

Discipline: Nursing

Course Number: 115

Org Number: 15200

Full Course Title: Pharmacology

Transcript Title: Pharmacology

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Three Year Review / Assessment Report

Change Information:

Consultation with all departments affected by this course is required.

Pre-requisite, co-requisite, or enrollment restrictions

Outcomes/Assessment

Objectives/Evaluation

Other:

Rationale: Updating course based on assessment results.

Proposed Start Semester: Spring/Summer 2020

Course Description: In this course, students learn basic principles of pharmacology with a strong emphasis on medication safety along with drug dosage calculations. Pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of major drug classifications are discussed using a pathophysiological approach and then applied to patient situations. Drug contraindications, drug interactions, adverse effects, nursing management, and patient education are also discussed and then applied to patient situations. Anatomy and physiology is a course pre-requisite. This is a required course in the WCC Nursing Programs but may also be taken for transfer by any pre-nursing or nursing student.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 Student: 45

Lab: Instructor: 0 Student: 0

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 45 Student: 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Level 4

Requisites

Prerequisite

BIO 111 minimum grade "B-"

and

Prerequisite

BIO 212 minimum grade "C"; may enroll concurrently

and

Prerequisite

BIO 147 minimum grade "C"; may enroll concurrently
or BIO 237 minimum grade "C"; may enroll concurrently

and

Prerequisite

MTH 160 minimum grade "C"

or MTH 176 or a math course numbered 176 or higher with a minimum grade of "C"

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University
Grand Valley State University
Michigan State University
University of Detroit - Mercy
University of Michigan
Wayne State University
Other :

Student Learning Outcomes

1. Recognize drug classifications and related prototypes using a pathophysiological approach.

Assessment 1

Assessment Tool: Specific cumulative final exam questions tied to this SLO.

Assessment Date: Spring/Summer 2022

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Exam questions will be scored using an answer key (Blackboard Exam).

Standard of success to be used for this assessment: 75% of all students who take these questions on the final exam will score 78% or higher.

Who will score and analyze the data: Department faculty

Assessment 2

Assessment Tool: Three Guided Reflection question sets tied to this SLO.

Assessment Date: Spring/Summer 2022

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: A grading rubric will score the Guided Reflection question sets.

Standard of success to be used for this assessment: 75% of all students who submit the Guided Reflection question sets will score 78% or higher.

Who will score and analyze the data: Departmental faculty

2. Recognize the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype and apply to patient situations.

Assessment 1

Assessment Tool: Specific cumulative final exam questions tied to this SLO.

Assessment Date: Spring/Summer 2022

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Exam questions will be scored using an answer key (Blackboard Exam).

Standard of success to be used for this assessment: 75% of all students who take these questions on the final exam will score 78% or higher.

Who will score and analyze the data: Department faculty

Assessment 2

Assessment Tool: Three Guided Reflection question sets tied to this SLO.

Assessment Date: Spring/Summer 2022

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All Students

How the assessment will be scored: A grading rubric will score the Guided Reflection question sets.

Standard of success to be used for this assessment: 75% of all students who submit the Guided Reflection question sets will score 78% or higher.

Who will score and analyze the data: Departmental faculty

3. Recognize nursing considerations along with safety implications and drug dosage calculations for prototypical drugs in each classification and apply to patient situations.

Assessment 1

Assessment Tool: Specific cumulative final exam questions tied to this SLO.

Assessment Date: Spring/Summer 2022

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Exam questions will be scored using an answer key (Blackboard Exam).

Standard of success to be used for this assessment: 75% of all students who take these questions on the final exam will score 78% or higher.

Who will score and analyze the data: Department faculty

Course Objectives

1. Define pharmacology terms, and discuss the impact of the history, legislation, drug schedules, and stages of new drug development on pharmacology in the 21st century.
2. Discuss the development of the nurse's role in the administration of drugs, drug implications, medication orders, types of drug orders, drug nomenclature, drug constituents, types/forms of drug preparations, and current sources of drug information.
3. Identify the principles of safe administration of medications using correct calculations, applying nursing considerations, and safeguarding against errors.
4. Discuss the pathophysiological approach for medications used to treat inflammation and cancer; hematology and immunology problems; cardiovascular and respiratory problems; gastrointestinal and endocrine problems; and nervous, musculoskeletal, and reproductive problems. Apply the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of drug prototypes to the pathophysiological approach.
5. Discuss applying nursing considerations and patient education to all drug prototypes.
6. Identify the application of complementary alternative therapies including herbals, supplements, and over the counter medications. Identify potential drug interactions with all prototypes and their

application to patient situations.

7. Apply the principles of safe administration of medications to specific patient situations.
8. Apply the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all prototypes to patient situations, including drug-drug interactions and drug-food interactions.
9. Recognize the activity statements related to administration of medications and parenteral therapies which link the NCLEX-RN exam to practice.

New Resources for Course

Course Textbooks/Resources

Textbooks

Burns-Coral, M.. *Pharmacology for Undergraduate Nursing Students with a Basic Pathophysiological Connection*, 1st ed. Open Educational Resources, 2019

Manuals

American Nurses Association (ANA). Code of ethics for nurses with interpretative statements, Nursesbooks.org, 01-01-2015

American Nurses Association. Nursing: Scope and standards of Practice, Nursesbooks.org, 01-01-2015

Periodicals

Software

Virtual Simulation for Pharmacology. Laerdal and Wolters Kluwer, 2014 ed.

Designed to simulate real nursing scenarios, vSim allows students to interact with patients in a safe, realistic environment, available anytime, anywhere. Online interactive virtual simulations with integrated curriculum resources provide a full simulation learning experience for every student. Students have access to suggested reading material from trusted Wolters Kluwer sources, pre-simulation and post-simulation quizzes. and guided reflection questions to promote reflection and help improve future performance. The virtual simulation is student-directed, with a variety of nursing actions included, for an individualized learning experience. Actions during the simulation are recorded, resulting in a personalized feedback log to help each student identify areas of strengths or needed improvement. Throughout the simulation scenario, students have access to SmartSense links to additional learning opportunities through evidence-based, point-of-care content from Lippincott Advisor and Lippincott Procedures.

Picmonics: Pharmacological Nursing. Picmonics, 2016 ed.

Picmonic combines unforgettable images, stories, mnemonics and quizzes to help students increase mastery of concepts and retention when taking a pharmacology course.

Equipment/Facilities

Level III classroom

Off-Campus Sites

Computer workstations/lab

Other: Nursing computer classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Mary Burns-Coral</i>	<i>Faculty Preparer</i>	<i>Aug 01, 2019</i>
Department Chair/Area Director: <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Aug 06, 2019</i>
Dean: <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>Aug 07, 2019</i>
Curriculum Committee Chair: <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Sep 19, 2019</i>

Assessment Committee Chair:

Shawn Deron

Recommend Approval

Oct 10, 2019

Vice President for Instruction:

Kimberly Hurns

Approve

Oct 14, 2019

Washtenaw Community College Comprehensive Report

NUR 115 Pharmacology Effective Term: Winter 2017

Course Cover

Division: Health Sciences

Department: Nursing & Health Science

Discipline: Nursing

Course Number: 115

Org Number: 15220

Full Course Title: Pharmacology

Transcript Title: Pharmacology

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Course Change

Change Information:

Course description

Pre-requisite, co-requisite, or enrollment restrictions

Outcomes/Assessment

Objectives/Evaluation

Rationale: Nursing Faculty voted that BIO 212 may be taken concurrently with NUR 115. BIO 212 faculty are allowing students to take BIO 147 or BIO 237 concurrently.

Proposed Start Semester: Winter 2017

Course Description: In this course, students learn basic principles of pharmacology with a strong emphasis on medication safety along with drug dosage calculations. Pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of major drug classifications are discussed using a pathophysiological approach and then applied to patient situations. Drug contraindications, drug interactions, adverse effects, nursing management, and patient education are also discussed and then applied to patient situations. Anatomy and physiology is a course pre-requisite. This is a required course in the WCC Nursing Programs but may also be taken for transfer by any pre-nursing or nursing student.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Level 3

Requisites

Prerequisite

BIO 111 minimum grade "B-"
and

Prerequisite

BIO 212 minimum grade "C"; may enroll concurrently
and

Prerequisite

BIO 147 minimum grade "C"; may enroll concurrently
or BIO 237 minimum grade "C"; may enroll concurrently
and

Prerequisite

MTH 160 minimum grade "C"
or academic math level 3 or previously completed MTH 167.

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University
Grand Valley State University
Michigan State University
University of Detroit - Mercy
University of Michigan
Wayne State University

Student Learning Outcomes

1. Recognize drug classifications and related prototypes using a pathophysiological approach.

Assessment 1

Assessment Tool: Comprehensive Departmental Exam

Assessment Date: Spring/Summer 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students (~120)

How the assessment will be scored: Exam will be scored using the answer key (Par test/Blackboard exams).

Standard of success to be used for this assessment: 90% of all students who take this exam will score 78% or higher.

Who will score and analyze the data: Department Faculty

2. Recognize the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype and apply to patient situations.

Assessment 1

Assessment Tool: Comprehensive Departmental Exam

Assessment Date: Spring/Summer 2017

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3. Recognize nursing considerations along with safety implications and drug dosage calculations for prototypical drugs in each classification and apply to patient situations.

Assessment 1

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Standard of success to be used for this assessment: 90% of all students who take this exam will score 78% or higher.

Who will score and analyze the data: Department Faculty

Course Objectives

1. Define Pharmacology, and discuss the impact of the history, legislation, drug schedules, and stages of new drug development on pharmacology in the 21st Century.
2. Discuss the development of the nurse's role in the administration of drugs, drug implications, medication orders, types of drug orders, drug nomenclature, drug constituents, types/forms of drug preparations, and current sources of drug information.
3. Discuss the principles of the nurse administering medications safely using correct calculations while incorporating nursing considerations, and safeguarding against errors.
4. Discuss the pathophysiology of the following systems: immune system (including inflammation, infection, cancer, & hematology), cardiovascular, neurovascular, endocrine, reproductive, respiratory, gastrointestinal, and renal, and then apply it to the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of drug prototypes.
5. Discuss applying nursing considerations and patient education to all drug prototypes.
6. Practice the application of complimentary alternative therapies including herbals, supplements, and over the counter medications, and potential drug interactions with all prototypes and their application to patient situations.
7. Practice applying the principles of the nurse administering medications safely using correct calculations while incorporating nursing considerations, and safeguarding against errors and their application to patient situations.
8. Practice applying the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all prototypes which includes drug-drug interactions and drug-food interactions to patient situations.

New Resources for Course

Course Textbooks/Resources

Textbooks

Kipta, M.. *Pharmacology 101*, 1st ed. Open Educational Resources, 2011

Manuals

American Nurses Association (ANA). Code of ethics for nurses with interpretative statements, Nursesbooks.org, 01-01-2015

American Nurses Association. Nursing: Scope and standards of Practice, Nursesbooks.org, 01-01-2010

Periodicals

Software

VSIM for Pharmacology. LWW, July 24, 2015 ed.

Virtual Simulation ISBN: 9781469894362

Picmonics. Picmonic Team, Pharmacology ed.

Picmonics software: <http://www.picmonic.com/pathways/nursing/courses/standard/pharmacological-nursing-324>

Equipment/Facilities

Level III classroom

Testing Center

Other: Examity for Cumulative Final exam only.

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Mary Burns-Coral</i>	<i>Faculty Preparer</i>	<i>Jul 07, 2016</i>
Department Chair/Area Director: <i>Mary Burns-Coral</i>	<i>Recommend Approval</i>	<i>Jul 11, 2016</i>
Dean: <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>Jul 12, 2016</i>
Curriculum Committee Chair: <i>David Wooten</i>	<i>Recommend Approval</i>	<i>Aug 27, 2016</i>
Assessment Committee Chair: <i>Michelle Garey</i>	<i>Recommend Approval</i>	<i>Aug 30, 2016</i>
Vice President for Instruction: <i>Bill Abernethy</i>	<i>Approve</i>	<i>Sep 01, 2016</i>