

# Washtenaw Community College Comprehensive Report

## NUR 115 Pharmacology Effective Term: Winter 2025

### Course Cover

**College:** Health Sciences

**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:** Yes

**Please Explain:**

Curriculum and Advising have been consulted.

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

**Reason for Submission:**

**Change Information:**

**Consultation with all departments affected by this course is required.**

**Rationale:** Math level is impacted by college-wide changes. Change is necessary to meet college requirements.

**Proposed Start Semester:** Winter 2025

**Course Description:** In this course, students will 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

No Level Required

## **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

### **Prerequisite**

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

### **Prerequisite**

MTH 160 minimum grade "C"  
or

### **Prerequisite**

MTH 160X minimum grade "C"

Completion of MTH 160X will not raise the student's Academic Math Level to 3, which is required for at least one course in the APNURS or APNURL programs.

or

### **Prerequisite**

MTH 176 minimum grade "C"

or a math course numbered 176 or higher with a minimum grade "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 to provide safe patient care (EOPSLO 3).

#### **Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024

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: Answer key

Standard of success to be used for this assessment: 75% of students will score 78% or higher.

Who will score and analyze the data: Departmental faculty

#### **Assessment 2**

Assessment Tool: Concept map

Assessment Date: Spring/Summer 2024

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: Departmentally-developed rubric  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

2. Interpret the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to impact patient-centered care and associated quality patient outcomes (EOPSLO 1,3).

**Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions  
Assessment Date: Spring/Summer 2024  
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: Answer key  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

**Assessment 2**

Assessment Tool: Concept map  
Assessment Date: Spring/Summer 2024  
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: Departmentally-developed rubric  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

3. Apply principles of effective nursing collaboration and communication to promote safe, evidence-based clinical judgment and error reduction in the pharmacological management of patients (EPOSLO 1,2,3,5).

**Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions  
Assessment Date: Spring/Summer 2024  
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: Answer key  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

**Assessment 2**

Assessment Tool: Concept map  
Assessment Date: Spring/Summer 2024  
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: Departmentally-developed rubric  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

4. Evaluate the professional nurse's role in adhering to standards of practice when using pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to patient situations (EOPSLO 5).

**Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024  
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: Answer key  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

### **Assessment 2**

Assessment Tool: Concept map  
Assessment Date: Fall 2023  
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: Departmentally-developed rubric  
Standard of success to be used for this assessment: 75% of students will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

### **Course Objectives**

1. 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. Apply the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of drug prototypes to the pathophysiological approach.
4. Identify the principles of safe administration of medications using correct calculations, applying nursing considerations, and safeguarding against errors.
5. Apply knowledge of pathophysiology, pharmacodynamics, pharmacokinetics, and pharmacotherapeutics to prototype drugs used in treatment of inflammation and cancer; hematology and immunology problems; cardiovascular and respiratory problems; gastrointestinal and endocrine problems; and nervous, musculoskeletal, and reproductive problems.
6. Discuss nursing considerations and patient education for all drug prototypes.
7. Discuss potential interactions of complementary and alternative therapies such as herbals, supplements, and over the counter medications with prototype drugs, in context of patient situations.
8. Apply the principles of safe administration of medications to specific patient situations including safe dosage and calculation.
9. Apply the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all prototypes to patient situations, including drug-drug interactions and drug-food interactions.
10. Identify potential drug interactions with all prototypes and apply to patient situations.
11. Recognize the activity statements related to administration of medications and parenteral therapies that link the National Council Licensure Examination for Registered Nurses (NCLEX-RN) to practice.
12. Describe aspects of medication error reporting within the context of professional nursing practice.

### **New Resources for Course**

SafeMedicate

### **Course Textbooks/Resources**

Textbooks

Ernstmeyer, K. and Christman, E. (Eds).. *Nursing Pharmacology by Chippewa Valley Technical College*, Current ed. Licensed under Creative Commons, 2020, ISBN: 9781734914115.

Vallerand, A., Sanoski, C.. *Davis's Drug Guide for Nurses*, 17th ed. F. A. Davis, 2021, ISBN: 9781719640053.

Manuals

Periodicals

Software

**Equipment/Facilities**

Level III classroom

Off-Campus Sites

Computer workstations/lab

Other: Nursing computer classroom

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Theresa Bucy</i>	<i>Faculty Preparer</i>	<i>Oct 14, 2024</i>
<b>Department Chair/Area Director:</b> <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Oct 14, 2024</i>
<b>Dean:</b> <i>Ben Linford</i>	<i>Recommend Approval</i>	<i>Oct 15, 2024</i>
<b>Curriculum Committee Chair:</b> <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Oct 18, 2024</i>
<b>Assessment Committee Chair:</b> <i>Jessica Hale</i>	<i>Recommend Approval</i>	<i>Oct 18, 2024</i>
<b>Vice President for Instruction:</b> <i>Brandon Tucker</i>	<i>Approve</i>	<i>Oct 19, 2024</i>

# Washtenaw Community College Comprehensive Report

## NUR 115 Pharmacology **Conditional Approval** Effective Term: Winter 2024

### Course Cover

**College:** Health Sciences

**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:** Course Change

**Change Information:**

**Pre-requisite, co-requisite, or enrollment restrictions**

**Rationale:** Restore the previous math prerequisites without mention of math level requirement.

**Proposed Start Semester:** Winter 2024

**Course Description:** In this course, students will 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

No Level Required

**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

**Prerequisite**

BIO 237 minimum grade "C"; may enroll concurrently

and

**Prerequisite**

MTH 160 minimum grade "C"

or

**Prerequisite**

MTH 176 minimum grade "C"

or a math course numbered 176 or higher with a minimum grade "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 to provide safe patient care (EOPSLO 3).

**Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024

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: Answer key (Blackboard Exam)

Standard of success to be used for this assessment: 75% of all students will score 78% or higher on the outcome-related questions.

Who will score and analyze the data: Department faculty

**Assessment 2**

Assessment Tool: Concept map

Assessment Date: Spring/Summer 2024

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: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of all students will score 78% or higher.

Who will score and analyze the data: Department faculty

2. Interpret the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to impact patient-centered care and associated quality patient outcomes (EOPSLO 1,3).

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3. Apply principles of effective nursing collaboration and communication to promote safe, evidence-based clinical judgment and error reduction in the pharmacological management of patients (EPOSLO 1,2,3,5).

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Assessment Date: Spring/Summer 2024

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: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of all students will score 78% or higher.

Who will score and analyze the data: Department faculty

4. Evaluate the professional nurse's role in adhering to standards of practice when using pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to patient situations (EOPSLO 5).



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Standard of success to be used for this assessment: 75% of all students will score 78% or higher on the outcome-related questions.

Who will score and analyze the data: Department faculty

**Assessment 2**

Assessment Tool: Concept map

Assessment Date: Fall 2023

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: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of all students 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.
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12. Describe aspects of medication error reporting within the context of professional nursing practice.

**New Resources for Course**

SafeMedicate

**Course Textbooks/Resources**

Textbooks

Ernstmeyer, K. and Christman, E. (Eds).. *Nursing Pharmacology by Chippewa Valley Technical College*, Current ed. Licensed under Creative Commons, 2020, ISBN: 9781734914115.

Vallerand, A., Sanoski, C.. *Davis's Drug Guide for Nurses*, 17th ed. F. A. Davis, 2021, ISBN: 9781719640053.

Manuals  
Periodicals  
Software

### **Equipment/Facilities**

Level III classroom  
Off-Campus Sites  
Computer workstations/lab  
Other: Nursing computer classroom

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Theresa Bucy</i>	<i>Faculty Preparer</i>	<i>Nov 10, 2023</i>
<b>Department Chair/Area Director:</b> <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Nov 10, 2023</i>
<b>Dean:</b> <i>Shari Lambert</i>	<i>Request Conditional Approval</i>	<i>Nov 10, 2023</i>
<b>Curriculum Committee Chair:</b>		
<b>Assessment Committee Chair:</b>		
<b>Vice President for Instruction:</b> <i>Brandon Tucker</i>	<i>Conditional Approval</i>	<i>Nov 10, 2023</i>

## Washtenaw Community College Comprehensive Report

### NUR 115 Pharmacology **Conditional Approval** Effective Term: Winter 2024

#### Course Cover

**College:** Health Sciences

**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:**

**Outcomes/Assessment**

**Objectives/Evaluation**

**Rationale:** Alignment of course Student Learning Outcomes with program End of Program Student Learning Outcomes noted within the text of the document. This is for accreditation purposes.

**Proposed Start Semester:** Winter 2024

**Course Description:** In this course, students will 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

### **Prerequisite**

BIO 237 minimum grade "C"; may enroll concurrently

and

### **Prerequisite**

MTH 160 minimum grade "C"

or

### **Prerequisite**

MTH 176 minimum grade "C"

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

## **General Education**

## **Request Course Transfer**

### **Proposed For:**

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

## **Student Learning Outcomes**

1. Recognize drug classifications and related prototypes using a pathophysiological approach to provide safe patient care (EOPSLO 3).

### **Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024

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: Answer key (Blackboard Exam)

Standard of success to be used for this assessment: 75% of all students will score 78% or higher on the outcome-related questions.

Who will score and analyze the data: Department faculty

### **Assessment 2**

Assessment Tool: Concept map

Assessment Date: Spring/Summer 2024

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: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of all students will score 78% or higher.

Who will score and analyze the data: Department faculty

2. Interpret the pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to impact patient-centered care and associated quality patient outcomes (EOPSLO 1,3).

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3. Apply principles of effective nursing collaboration and communication to promote safe, evidence-based clinical judgment and error reduction in the pharmacological management of patients (EPOSLO 1,2,3,5).

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Number students to be assessed: All students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of all students will score 78% or higher.

Who will score and analyze the data: Department faculty

4. Evaluate the professional nurse's role in adhering to standards of practice when using pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to patient situations (EOPSLO 5).

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Who will score and analyze the data: Department faculty

**Assessment 2**

Assessment Tool: Concept map

Assessment Date: Fall 2023

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: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% of all students 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.
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11. Recognize the activity statements related to administration of medications and parenteral therapies that link the NCLEX-RN exam to practice.
12. Describe aspects of medication error reporting within the context of professional nursing practice.

**New Resources for Course****Course Textbooks/Resources****Textbooks**

Ernstmeyer, K. and Christman, E. (Eds).. *Nursing Pharmacology by Chippewa Valley Technical College*, Current ed. Licensed under Creative Commons, 2020, ISBN: 9781734914115.

Craig, G.. *Clinical Calculations Made Easy*, current ed. Philadelphia: Wolters Kluwer, 2020, ISBN: 9781496302823.

Vallerand, A., Sanoski, C.. *Davis's Drug Guide for Nurses*, 17th ed. F. A. Davis, 2021, ISBN: 9781719640053.

Manuals

Periodicals

Software

VSIM for Pharmacology. Wolters-Kluwer, Current ed.

Adaptive, interactive virtual simulations with integrated curriculum resources and personalized feedback provide a full simulation learning experience for every student to promote confidence and competence in patient-centered care.

### **Equipment/Facilities**

Level III classroom

Off-Campus Sites

Computer workstations/lab

Other: Nursing computer classroom

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Theresa Bucy</i>	<i>Faculty Preparer</i>	<i>Mar 21, 2023</i>
<b>Department Chair/Area Director:</b> <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Mar 21, 2023</i>
<b>Dean:</b> <i>Shari Lambert</i>	<i>Recommend Approval</i>	<i>Mar 24, 2023</i>
<b>Curriculum Committee Chair:</b> <i>Randy Van Wagnen</i>	<i>Request Conditional Approval</i>	<i>Jun 01, 2023</i>
<b>Assessment Committee Chair:</b>		
<b>Vice President for Instruction:</b> <i>Victor Vega</i>	<i>Conditional Approval</i>	<i>Jun 05, 2023</i>

# Washtenaw Community College Comprehensive Report

## NUR 115 Pharmacology Effective Term: Spring/Summer 2023

### Course Cover

**College:** Health Sciences

**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:** Course Change

**Change Information:**

**Pre-requisite, co-requisite, or enrollment restrictions**

**Outcomes/Assessment**

**Rationale:** Unintended changes from previous course assessment being corrected to align with program passing standards. ATI should have been removed from all outcomes; it is not used to assess Outcome #3 either.

**Proposed Start Semester:** Spring/Summer 2023

**Course Description:** In this course, students will 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

No Level Required



## **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

### **Prerequisite**

BIO 237 minimum grade "C"; may enroll concurrently

and

### **Prerequisite**

MTH 160 minimum grade "C"

or

### **Prerequisite**

MTH 176 minimum grade "C"

or a math course numbered 176 or higher with a minimum grade "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: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024

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: 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

2. Apply knowledge of pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to patient situations.

### **Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024

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: 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

3. Apply knowledge of nursing considerations, safety implications, and drug dosage calculations to patient situations.

#### **Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

Assessment Date: Spring/Summer 2024

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: Answer key

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 including safe dosage and calculation.
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 that link the NCLEX-RN exam to practice.

### **New Resources for Course**

#### **Course Textbooks/Resources**

##### Textbooks

Craig, G.. *Clinical Calculations Made Easy*, 6th ed. Philadelphia: Wolters Kluwer, 2017, ISBN: 9781496302823.

Adams, M., Holland, N., Urban, C.. *Pharmacology for Nurses, A Pathophysiologic Approach*, 6th ed. Pearson, 2020, ISBN: 0-13-521833-0.

Vallerand, A., Sanoski, C.. *Davis's Drug Guide for Nurses*, 17th ed. F. A. Davis, 2021, ISBN: 9781719640053.

##### Manuals

##### Periodicals

Software

**Equipment/Facilities**

Level III classroom

Off-Campus Sites

Computer workstations/lab

Other: Nursing computer classroom

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Theresa Bucy</i>	<i>Faculty Preparer</i>	<i>Nov 02, 2022</i>
<b>Department Chair/Area Director:</b> <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Nov 02, 2022</i>
<b>Dean:</b> <i>Shari Lambert</i>	<i>Recommend Approval</i>	<i>Nov 03, 2022</i>
<b>Curriculum Committee Chair:</b> <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Mar 11, 2023</i>
<b>Assessment Committee Chair:</b> <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Mar 15, 2023</i>
<b>Vice President for Instruction:</b> <i>Victor Vega</i>	<i>Approve</i>	<i>Mar 15, 2023</i>

## Washtenaw Community College Comprehensive Report

### NUR 115 Pharmacology Effective Term: Winter 2023

#### Course Cover

**College:** Health Sciences

**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:** Course Change

**Change Information:**

**Consultation with all departments affected by this course is required.**

**Outcomes/Assessment**

**Rationale:** Update outcome language; update tools to measure outcomes; update textbook.

**Proposed Start Semester:** Spring/Summer 2022

**Course Description:** In this course, students will 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 "B-"; may enroll concurrently

and

**Prerequisite**

BIO 147 minimum grade "B-"; may enroll concurrently

or BIO 237 minimum grade "B-"; may enroll concurrently

and

**Prerequisite**

MTH 160 minimum grade "C"

or a math course at math level 4 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: Outcome-related cumulative final exam questions

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: 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

2. Apply knowledge of pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of each prototype to patient situations.

**Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

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: 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

3. Apply knowledge of nursing considerations, safety implications, and drug dosage calculations to patient situations.

#### **Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions

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: Answer key

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: ATI Dosage Calculation Fundamentals Proctored Exam

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: External evaluation by ATI Assessment Technologies LLC

Standard of success to be used for this assessment: 90% of students will score 90% or higher.

Who will score and analyze the data: ATI Assessment Technologies LLC will score and the course coordinator will analyze the data.

### **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 including safe dosage and calculation.
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 that link the NCLEX-RN exam to practice.

### **New Resources for Course**

#### **Course Textbooks/Resources**

##### Textbooks

Craig, G.. *Clinical Calculations Made Easy*, 6th ed. Philadelphia: Wolters Kluwer, 2017, ISBN: 9781496302823.

Adams, M., Holland, N., Urban, C.. *Pharmacology for Nurses, A Pathophysiologic Approach*, 6th ed. Pearson, 2020, ISBN: 0-13-521833-0.

Vallerand, A., Sanoski, C.. *Davis's Drug Guide for Nurses*, 17th ed. F. A. Davis, 2021, ISBN: 9781719640053.

Manuals  
Periodicals  
Software

### **Equipment/Facilities**

Level III classroom  
Off-Campus Sites  
Computer workstations/lab  
Other: Nursing computer classroom

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Theresa Bucy</i>	<i>Faculty Preparer</i>	<i>Feb 04, 2022</i>
<b>Department Chair/Area Director:</b> <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Feb 07, 2022</i>
<b>Dean:</b> <i>Shari Lambert</i>	<i>Recommend Approval</i>	<i>Feb 11, 2022</i>
<b>Curriculum Committee Chair:</b> <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Mar 28, 2022</i>
<b>Assessment Committee Chair:</b> <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Apr 04, 2022</i>
<b>Vice President for Instruction:</b> <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Apr 05, 2022</i>

# Washtenaw Community College Comprehensive Report

## NUR 115 Pharmacology Effective Term: Spring/Summer 2021

### 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:** Course Change

**Change Information:**

**Consultation with all departments affected by this course is required.**

**Outcomes/Assessment**

**Objectives/Evaluation**

**Rationale:** Include ATI Pharmacology Made Easy and Dosage Calculations modules with a Dosage Calculation proctored exam at the end of the course which will configure into their final grade.

**Proposed Start Semester:** Winter 2021

**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: Outcome-related cumulative final exam questions

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: 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 outcome-related Guided/Documentation Reflection question sets

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/Documentation question sets.

Standard of success to be used for this assessment: 90% of all students who submit the Guided Reflection/Documentation question sets will score 78% or higher.

Who will score and analyze the data: Departmental faculty

### **Assessment 3**

Assessment Tool: ATI Dosage Calculation Fundamentals Proctored Exam

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: External evaluation by ATI Assessment Technologies LLC.  
Standard of success to be used for this assessment: 80% of students will score Level I or Level II or higher on the exam.  
Who will score and analyze the data: ATI Assessment Technologies LLC will score and Course Coordinator will analyze the data.

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

**Assessment 1**

Assessment Tool: Outcome-related cumulative final exam questions  
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: 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 outcome-related Guided Reflection question sets  
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: 90% of all students who submit the Guided Reflection question sets will score 78% or higher.  
Who will score and analyze the data: Departmental faculty

**Assessment 3**

Assessment Tool: ATI Dosage and Calculation Fundamentals Proctored Exam  
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: External evaluation by ATI Assessment Technologies LLC.  
Standard of success to be used for this assessment: 80% of students will score Level I or Level II or higher on the exam.  
Who will score and analyze the data: ATI Assessment Technologies LLC will score and Course Coordinator will analyze the data.

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: Outcome-related cumulative final exam questions  
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: 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: ATI Dosage Calculation Fundamentals Proctored Exam

Assessment Date: Fall 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: External evaluation by ATI Assessment Technologies LLC

Standard of success to be used for this assessment: 80% of students will score Level I or Level II or higher on the exam

Who will score and analyze the data: ATI Assessment Technologies LLC will score and Course Coordinator will analyze the data.

### **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 including safe dosage and calculation.
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**

ATI Pharmacology Made Easy and Safe Dosage and Calculation Modules. ATI Safe Dosage and Calculations practice tests and Fundamentals proctored exam.

### **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, 1st ed.

Designed to simulate real nursing scenarios, vSim allows students to interact with patients in a safe, realistic environment administering medications and calculating doses and educating their patients.

### **Equipment/Facilities**

Level III classroom

Off-Campus Sites

Computer workstations/lab

Other: Nursing computer classroom

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Mary Burns-Coral</i>	<i>Faculty Preparer</i>	<i>Jul 23, 2020</i>
<b>Department Chair/Area Director:</b> <i>Theresa Bucy</i>	<i>Recommend Approval</i>	<i>Nov 30, 2020</i>
<b>Dean:</b> <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>Dec 01, 2020</i>
<b>Curriculum Committee Chair:</b> <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Jan 29, 2021</i>
<b>Assessment Committee Chair:</b> <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Feb 01, 2021</i>
<b>Vice President for Instruction:</b> <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Feb 04, 2021</i>