



This course supports the assessments for Pathophysiology/Pharmacology. The course covers 30 competencies and represents 5 competency units.

## Introduction

### Overview

You will study the structure and function of the human body, how disease or trauma in one body system impacts many others, pharmaceutical interventions, and the role of pharmaceutical interventions in fighting disease.

As an informatics professional, you will review patient health records for reimbursement functions, data abstraction, and quality and compliance.

Understanding the biomedical sciences is foundational to your work as managers of health information.

Watch the following video for an overview of this course of study:

*Note: View the video in full screen at 720p for best results.*

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Understanding the biomedical sciences is foundational to your work as managers of health information.

### Competencies

This course provides guidance to help you demonstrate the following 30 competencies:

- **Competency 733.2.1: Basic Concepts of Pathophysiology**  
The graduate analyzes fundamental concepts and processes of human pathophysiology.
- **Competency 733.2.2: Altered Status and Development of Disease Processes**  
The graduate analyzes relationships among genetic and developmental factors that contribute to the formation of disease processes in newborns, adolescents, adults, and elders.
- **Competency 733.2.3: Environmental and Other External Factors Associated With Pathophysiological Conditions**



The graduate analyzes environmental and other external factors that contribute to the development of pathophysiological conditions.

- **Competency 733.2.4: Musculoskeletal Disorders**

The graduate analyzes common disorders of the musculoskeletal system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.5: Skin Disorders**

The graduate analyzes common skin disorders of the integumentary system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.6: Digestive System Disorders**

The graduate analyzes common disorders of the digestive system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.7: Urinary System Disorders**

The graduate analyzes common disorders of the urinary system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.8: Male Reproductive System Disorders**

The graduate analyzes common disorders of the male reproductive systems using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.9: Female Reproductive System Disorders**

The graduate analyzes common disorders of the female reproductive systems using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.10: Blood, Lymphatic, and Immune System Disorders**

The graduate analyzes common disorders of the blood, lymphatic, and immune systems using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.11: Cardiovascular Disorders**

The graduate analyzes common disorders of the cardiovascular system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.12: Respiratory Disorders**

The graduate analyzes common disorders of the respiratory system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.13: Disorders of the Nervous System**

The graduate analyzes common disorders of the nervous system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.

- **Competency 733.2.14: Disorders of the Sense Organs**

The graduate analyzes common disorders of the sense organs using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.



- **Competency 733.2.15: Endocrine Disorders**  
The graduate analyzes common disorders of the endocrine system using accurate medical terminology; and associates appropriate diagnostic tests and treatments with these disorders.
- **Competency 733.3.1: Basic Principles of Pharmacology**  
The graduate is conversant with basic concepts, principles, and standards of general pharmacology.
- **Competency 733.3.2: Antibiotics and Antifungal, Antiviral, and Antiparasitic Agents**  
The graduate evaluates fundamental concepts associated with the categories of pharmaceutical products known as antibiotics and antifungal, antiviral, and antiparasitic agents.
- **Competency 733.3.3: Antihistamines**  
The graduate evaluates fundamental concepts associated with the category of pharmaceutical agents known as antihistamines.
- **Competency 733.3.4: Pain Medications, Tranquilizers, and Antidepressants**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents identified as pain medications, tranquilizers, and antidepressants.
- **Competency 733.3.5: Prostaglandins and Prostaglandin Inhibitors**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents identified as prostaglandins and prostaglandin inhibitors.
- **Competency 733.3.6: Antineoplastic Drugs**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents used in the treatment of neoplastic diseases.
- **Competency 733.3.7: Immunizing and Immunosuppressive Agents**  
The graduate evaluates fundamental concepts associated with pharmaceutical products identified as immunizing agents and immunosuppressive agents.
- **Competency 733.3.8: Drugs for the Skin and Mucous Membranes**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents used in the treatment of skin and mucous membranes.
- **Competency 733.3.9: Drugs for the Digestive System**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents used in the treatment of conditions that affect the digestive system.
- **Competency 733.3.10: Diuretics and Other Drugs for the Urinary System**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents used in the treatment of conditions that affect the urinary system.
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- **Competency 733.3.12: Drugs for the Respiratory System**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents used in the treatment of respiratory system conditions.
- **Competency 733.3.13: Drugs for the Central Nervous System and Autonomic Nervous System**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents that affect the central nervous system and the autonomic nervous system.



- **Competency 733.3.14: Drugs for the Endocrine Glands and Hormones**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents used in the treatment of conditions that affect the endocrine system.
- **Competency 733.3.15: Emerging and Alternative Therapies**  
The graduate evaluates fundamental concepts associated with pharmaceutical agents and techniques used in emerging and alternative therapies and treatments.

## **AHIMA Baccalaureate Degree Entry-Level Competencies**

The Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) is the accrediting agency for health information management (HIM) programs at the associate, baccalaureate and master's degree levels, and health informatics master's degree programs.

CAHIIM requires that baccalaureate programs include reference to the *AHIMA Baccalaureate Degree Entry-Level Competencies* in each course of study as applicable for students to see. For this course of study this includes:

- **Biomedical Sciences: Pharmacotherapy and Pathophysiology**

Students should be able to breakdown, differentiate, discriminate, recognize, infer, point out, illustrate, outline, and prioritize concepts related to pharmacotherapy and pathophysiology.

Please indicate that you have read and understand this information by marking this activity as complete in your web-enabled course of study.

## **Course Instructor Assistance**

As you prepare to successfully demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you're studying. They also provide guidance in assessment preparation strategies and troubleshoot areas of deficiency. Even if things don't work out on your first try, course instructors act as a support system to guide you through the revision process. You should expect to work with course instructors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course instructors are fully committed to your success!

## **Preparing for Success**



The information in this section is provided to detail the resources available for you to use as you complete this course.

## **Learning Resources**

The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to manually enroll in or independently acquire other resources. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

### **Manually Enrolled Resources**

Take a moment to enroll in the learning resources listed in this section. To enroll, navigate to the “Learning Resources” tab, click the “Sections” button, and then click the “Enroll Now” button for each resource. Once your mentor approves your enrollment in the resource, you will receive an e-mail with further access instructions. Contact your mentor if you have questions.

You will need to enroll in or subscribe to learning resources as a part of this course. You may already have enrolled in these resources for other courses. Please check the “Learning Resources” tab and verify that you have access to the following learning resources. If you do not currently have access, please enroll or renew your enrollment at this time. Manually

### **AHIMA Modules**

To enroll in the AHIMA modules, please go to the Learning Resources tab. Shortly after enrollment, you will receive a registration email with information on how to gain access to this resource.

The AHIMA resource contains learning activities, web links, and self-tests and quizzes throughout each of the modules in this resource; it is the primary resource for this course of study. You will be using the following online learning resource for this course of study:

- AHIMA Distance Education Course: Pathophysiology and Pharmacology

*Note: If you have any login difficulties, do not contact AHIMA. The learning resource is managed through WGU. Contact the [Learning Resources Department](#) with any problems.*

As you work through this resource, make sure to complete the following suggestions:

- Work through all of the AHIMA modules; the exam is based on module content.
- Take all module quizzes.
- Visit all suggested websites found in the modules.
- Do all activities suggested in the modules.
- Read all assigned textbook chapters as listed in the modules.
- Contact your mentor for study notes to help focus your studies; these notes are based on the textbook chapters and will help you concentrate on important concepts.
- Make sure to score 90% or better in all module quizzes before you request the exam.
- Request your module quizzes be reset for more practice as needed.



You will access the following two e-textbooks within the AHIMA Pathophysiology and Pharmacology course:

- Asperheim, M.K. (2008). *Introduction to pharmacology* (11th ed.). Philadelphia, PA: W.B. Saunders Title. ISBN 13: 978-1416059059.
- Gould, B.E. (2010). *Pathophysiology for the health professionals* (4th ed.) Philadelphia, PA: W.B. Saunders Title. ISBN 13: 978-1437709650.

### **Other Learning Resources**

#### **3M Encoder (Optional)**

The 3M Encoder is a software application used by coders to assist in determining and applying appropriate codes to healthcare services rendered.

For the most current encoder password, please access the "[3M Encoder Access Information](#)" document.

The 3M Encoder can be used for study purposes in this course because of the extensive resources it contains. Seeing information about disease processes and pharmaceuticals in an application through which this information is used clinically will help further your understanding of the content.

The 3M Encoder contains online resources such as a medical dictionary, descriptions of diseases and medical/surgical procedures, abbreviations, and other helpful information. If you have never used an encoder before, you will benefit from using this resource to see how it is used in the clinical setting.

## **Pathophysiology and Pharmacology Learning Environment**

All reading activities, discussion questions, quizzes, and learning resources for this course of study are found by accessing the Pathophysiology and Pharmacology learning environment.

### **Learning Environment**

The material for this course of study is found in the AHIMA Distance Education course for Pathophysiology and Pharmacology.

Once you have completed the material within the learning environment, you should return to this course of study for the information for your exam.

This topic addresses the following competencies:

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### System

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## Final Steps

Congratulations on completing the activities in this course! This course has prepared you to complete the assessments associated with this course. If you have not already been directed to complete the assessments, schedule and complete your assessments now.

### First Attempt Checklist

One of the many things that makes WGU unique is its competency based education model. If you know the material, all you have to do is prove it by passing the exam. If you can do this, you can accelerate the receipt of your degree.

To make sure you have the best chance possible to pass the exam on your first attempt, the following should be completed before you refer to take it:

1. Student should score a minimum of 19 out of 20 on each of the end of AHIMA Module tests.

*This should not be memorization of the correct answers, but rather an understanding of the manner in which the final exam questions will be asked.*

2. Complete the definitions for the List of Terms, using the eTexts from AHIMA and the Study Guides provided by the CM and not outside dictionaries, textbooks, etc. The Final exam is specific to terminology from the AHIMA COS.
3. Acquire and study the complete set of Study Guide with optional URLs for webinars for each AHIMA module.

If this has been done, and you feel comfortable with all of the concepts presented, you are most likely ready to refer for the first attempt of the exam.

If the first attempt is failed, you will be required to get in contact with the course instructor to see what went wrong and how you can prepare to make sure your second attempt is a success. Once the course instructor feels you are ready to refer for the second attempt of the exam, he or she will approve your second exam referral.

### Assessment Information

The activities in this course of study have prepared you to complete the Pathophysiology/Pharmacology assessment. If you have not already completed the



assessment, you will do so now.

## Accessing Outside Vendor Assessments

Complete the following outside vendor assessment:

- Pathophysiology/Pharmacology

For directions on how to receive access to outside vendor assessments, see the "[Accessing Objective and Outside Vendor Assessments](#)" page.

You will see your score immediately after completing the exam.

*Note: You do **not** need to manually submit your exam results to WGU following your vendor assessment. Your score will appear on your Degree Plan within three working days.*

## The WGU Library

The [WGU Library](#) is available online to WGU students 24 hours a day.

For more information about using the WGU Library, view the following videos on [The WGU Channel](#):

- [WGU: Accessing the Library](#)
- [WGU Library: Finding Articles, Books, & E-Reserves](#)

## Center for Writing Excellence: The WGU Writing Center

If you need help with any part of the writing or revision process, contact the Center for Writing Excellence (CWE). Whatever your needs—writing anxiety, grammar, general college writing concerns, or even ESL language-related writing issues—the CWE is available to help you. The CWE offers personalized individual sessions and weekly group webinars. For an appointment, please e-mail [writingcenter@wgu.edu](mailto:writingcenter@wgu.edu).

## Feedback

WGU values your input! If you have comments, concerns, or suggestions for improvement of this course, please submit your feedback using the following form:

- [Course Feedback](#)

## ADA Policy

Western Governors University recognizes and fulfills its obligations under the Americans with Disabilities Act of 1990 (ADA), the Rehabilitation Act of 1973 and similar state laws. Western Governors University is committed to provide reasonable accommodation(s) to qualified disabled learners in University programs and activities as is required by applicable law(s). ADA Support Services serves as the principal point of contact for students seeking accommodations and can be contacted at [ADASupport@wgu.edu](mailto:ADASupport@wgu.edu). Further information on WGU's ADA policy



and process can be viewed in the student handbook at the following link:

- [Policies and Procedures for Students with Disabilities](#)