

Prerequisites: BIOL 251 – Human Anatomy & Physiology w/ Lab I or equivalent

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Contact Information: Faculty may be contacted through the Canvas messaging system

Additional Information: www.portagelearning.edu^{1*}

Course Meeting Times: BIOL 252 is offered continuously

Course Description: This is the second course in a sequence of two covering human anatomy and physiology. Human Anatomy and Physiology II covers the anatomy and physiology of several systems in the body, including the circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems, in addition to discussing homeostatic mechanisms. Case studies throughout the course provide experience applying these concepts to real-world scenarios. In addition, the laboratory component of this course is delivered using virtual labs and interactive simulations with detailed instruction and demonstrations from an experienced instructor.

Course Outcomes: After successful completion of the coursework, students should be able to:

- Define the function and composition of blood, mechanisms related to hemostasis, and how diagnostic blood tests are used (Module 1).
- Describe the anatomy and physiology of the heart as part of the cardiovascular system (Module 2).
- Outline the composition of blood vessels and the pathways and physiology of the circulatory system (Module 3).
- Explain the anatomy and physiology of the lymphatic system, as well as the mechanisms underlying innate and adaptive immune responses (Module 4).
- Describe the functional anatomy of the respiratory system, processes responsible for respiration and gas exchange/transport, and pathological states related to this system (Module 5).
- Explain the roles of the anatomical structures of the digestive system and the physiological processes associated with digestion (Module 6).

^{1*} Portage Learning college courses are offered by Geneva College, which is accredited by the Middle States Commission on Higher Education and Bushnell University, which is accredited by Northwest Commission on Colleges and Universities. The Faculty Senate of both institutions have vetted and approved the courses as part of their curriculum.

- Define the anatomical structures of the urinary system, their functions, the production of urine, and how the system maintains homeostasis (Module 7).
- Describe the mechanisms by which the body maintains fluid, electrolyte, and acid-base balance and what occurs if there are imbalances in these levels (Module 8).
- Compare and contrast the development, anatomy, and physiology of the male and female reproductive systems (Module 9).

*Please see the [Module & Lab Topics](#) section below for expanded course outcomes.

Each of these BIOL 252 student learning outcomes is measured:

Directly by: (1) Module application problems (with instructor feedback)
 (2) Module exams
 (3) Case studies
 (4) Lab quizzes
 (5) Adaptive Learning Exercises
 (6) Cumulative final exam

Indirectly by an end of course student-completed evaluation survey

Course Delivery: This course is asynchronously delivered online and is composed of 65 - 75 hours of written material, video lectures, laboratory components, and several assignments with instructor feedback, and 20 contact hours of secure online module exams.

Course Progression: It is the policy for all Portage Learning courses that only one (module lecture/final) exam is to be completed within a 48-hour period. Research on the best practices in learning indicates that time is needed to process material for optimal learning. This means that once an exam has been completed, the next exam may not be opened or taken until 48 hours after the submission of the previous module exam. This allows for instructor feedback/class expectations as the student moves through the material. Instructors, like the College, are not available during the weekend; grading, therefore, is M-F and may take up to 72 hours during these days. Also, it is the policy of Portage Learning to support a minimum of 28 days to complete a course; this is not a negotiable time period. Please plan your time accordingly.

Note: Professors reserve the right to reset any exam taken in violation of these guidelines.

Required readings, lectures and assignments: Portage courses do not use paper textbooks. Students are required to read the online lesson modules written by the course author which contain the standard information

covered in a typical course. Please note the exam questions are based upon the readings. Video lectures which support each lesson module subject should be viewed as many times as is necessary to fully understand the material.

We do not support the use of outside resources to study, except for the ones listed in the syllabus under “Suggested External References”. If you have questions about the material or would like further explanation of the concepts, please contact your instructor.

Academic Integrity is a serious matter. In the educational context, any dishonesty violates freedom and trust, which are essential for effective learning. Dishonesty limits a student's ability to reach his or her potential. Portage places a high value on honest independent work. We depend on the student's desire to succeed in the program he or she is entering. It is in a student's own best interests not to cheat on an exam or put their work into question, as this would compromise the student's preparation for future work. It is the student's responsibility to review the **Student Handbook** and all policies related to academic integrity. If clarification is necessary, the student should reach out to their instructor for further explanation **before** initiating module one.

Required Computer Accessories: It is recommended that students use a desktop or laptop computer, PC or Mac, when taking the course. Some tablet computers are potentially compatible with the course, but not all features are available for all tablet computers. The latest full version of Google Chrome, Firefox, Edge, or Safari browser is required for the optimal operation of the Canvas Learning Management System. In addition, this course will use the Respondus Lockdown Browser for exams; a strong internet connection is needed. You are also **required to use LockDown Browser with a webcam**, which will record you during an online, nonproctored exam. (The webcam feature is sometimes referred to as “Respondus Monitor.”) **Your computer must have a functioning webcam and microphone. Additionally, students will need a photo ID that includes your picture and full name is required. Please note, Chromebooks and tablets (other than iPad) are not compatible on exams using the Lockdown Browser.** Instructions on downloading and installing this browser will be given at the start of the course. We highly recommend using a high-speed Internet connection to view the video lectures and labs. You may experience significant difficulties viewing the videos using a dial-up connection.

For more information on basic system and browser requirements, please reference the following:

Canvas browser and system requirements: <https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66>

Respondus Requirements: <https://web.respondus.com/he/lockdownbrowser/resources/>

Respondus Monitor Requirements: <https://web.respondus.com/he/monitor/resources/>

Module & Lab Topics

Module 1: Blood

This module will cover blood components and functions, as well as hemostasis and an overview of diagnostic blood tests.

The student will be able to:

- Explain the composition and functions of blood, including its physical characteristics and volume, as well as its role in the human body.
- Describe the origins, differentiation, and functions of the formed elements (erythrocytes, leukocytes, and platelets) in maintaining homeostasis and supporting the immune system.
- Describe the basic pathologies of abnormal production erythrocytes, leukocytes, and platelets.
- Explain the structure and function of hemoglobin.
- Outline the process of hemostasis, detailing the mechanisms of vascular spasm, platelet plug formation, coagulation, clot retraction, and the importance of these mechanisms in preventing hemorrhage.
- Evaluate the factors that limit clot growth and formation, including both physiological mechanisms and pathological conditions, to prevent thrombosis.
- Assess the principles and practices of transfusion and blood replacement, including indications, complications, and the management of disorders of hemostasis in clinical settings.
- Explain the mechanical events of the cardiac cycle and describe the phases of systole and diastole.

As a result of completing the lab for this module, the student will be able to:

- Explain the precautions used when handling blood.
- Describe the structure, function, and significance of the formed elements in the blood.
- Explain how ABO and Rh blood typing are conducted, as well as the significance and how to interpret the results of the test.
- Explain how a hematocrit is measured and how to interpret values.
- Define the steps for creating a blood smear, and the different cell types.
- Describe the components of a complete blood count including the RBC, WBC, platelet count, hemoglobin, hematocrit, and differential count and their clinical significance.

Module 2: Cardiovascular System: The Heart

This module will introduce the cardiovascular system, with a specific focus on the anatomy and physiology of the heart.

The student will be able to:

- Describe the microscopic anatomy of cardiac muscle fibers, detailing their unique structural features that enable the heart's contraction.
- Explain the mechanism and events of cardiac muscle contraction, including the role of calcium and excitation-contraction coupling, to describe how heartbeat is generated.
- Analyze the energy requirements for cardiac muscle contraction, understanding the metabolic pathways and the importance of ATP in maintaining heart function.
- Explain the mechanical events of the cardiac cycle and the phases of systole and diastole.
- Evaluate the effects of various factors (e.g., physical activity, autonomic nervous system influences, volume status) on cardiac output, heart rate, and stroke volume, including their roles in maintaining cardiovascular health and homeostasis.
- Evaluate the mechanism of several cardiovascular diseases and their impact on cardiac output, including coronary artery disease, myocardial infarction, and heart failure.

As a result of completing the lab for this module, the student will be able to:

- Describe the heart's position and orientation in the mediastinum.
- Identify the parts of the heart including the membranes, heart wall layers, chambers, valves, external and internal anatomical features, and coronary blood vessels.
- Trace the pathway of blood through the heart, and the pulmonary and systemic circulation.
- Interpret ECG results, specifically the components of an ECG trace and how these connect to heart conductivity and the cardiac cycle for both normal and abnormal patterns.

Module 3: Cardiovascular System: Blood Vessels

This module will continue to discuss the cardiovascular system, specifically the structure and function of blood vessels and the circulatory pathways in the body.

The student will be able to:

- Describe the distinguishing characteristics of each blood vessel type, including their layers, unique features, and functions within the circulatory system.
- Explain the relationship among blood flow, pressure, and resistance and how alterations in these factors affect overall circulation.
- Explain the dynamics of blood flow through capillaries, including capillary dynamics, types of capillaries, and their roles in tissue exchange and regulation.
- Analyze the mechanisms maintaining blood pressure, including the short-term (neural and hormonal) and long-term (renal regulation) mechanisms responsible for regulating blood pressure and how they respond to various physiological conditions.
- Evaluate tissue perfusion and factors influencing it, including tissue perfusion dynamics, velocity of blood flow, autoregulation processes, and how blood flow alterations impact different body tissues and special areas.
- Explain the responses to alterations in blood pressure and compensatory mechanisms and adaptations.
- Analyze the pathophysiology of circulatory shock, its etiology, clinical manifestations, and appropriate medical interventions in managing these critical conditions.

As a result of completing the lab for this module, the student will be able to:

- Define blood pressure and how it is measured.
- Interpret blood pressure readings and what may influence changes in blood pressure.
- Identify the major blood vessels of the body.
- Trace the blood flow through the body including the brain, limbs, thoracic, and abdominal cavities.

Module 4: The Lymphatic System and Immunity

This module will discuss the anatomy and psychology of the lymphatic system and will describe the innate and adaptive defenses of the immune system.

The student will be able to:

- Describe the distribution and structure of lymphatic vessels and how lymphatic transport occurs.
- Identify the components and functions of lymphoid cells and tissues, including the structure and circulation within lymph nodes, and the roles of other lymphoid organs such as the spleen, thymus, tonsils, and lymphoid follicles.
- Explain the body's first line of defense, including the role of skin and mucosae as surface barriers.

- Describe the internal defenses including phagocytes, natural killer cells, the inflammatory response, antimicrobial proteins, and fever and how they contribute to the body's innate immunity.
- Distinguish between complete antigens and haptens, antigenic determinants, and self-antigens such as MHC proteins.
- Describe the cells involved in the adaptive immune system, focusing on lymphocytes and antigen-presenting cells, and their roles in immunity.
- Explain the process of clonal selection and differentiation of B cells and T cells.
- Describe the causes and consequences of immunodeficiencies, autoimmune diseases, and hypersensitivities.

As a result of completing the lab for this module, the student will be able to:

- Name the functions of the organs and tissues that comprise the lymphatic system.
- Describe the association between the lymphatic system and the cardiovascular system.

Module 5: The Respiratory System

This module will describe the anatomy and physiology of the respiratory system, with particular discussions on the mechanisms of breathing and gas exchange/transport and pathological conditions related to respiration.

The student will be able to:

- Explain the roles of the major structures of the respiratory system, including the nose, paranasal sinuses, pharynx, larynx, trachea, bronchi and their subdivisions, lungs, and pleurae.
- Describe the pressure relationships within the thoracic cavity that facilitate pulmonary ventilation, physical factors influencing pulmonary ventilation, and the significance of respiratory volumes and pulmonary function tests, including the role of non-respiratory air movements.
- Describe the basic properties of gases, the composition of alveolar gas, and the processes of external and internal respiration, including how gases are exchanged between the bloodstream and the lungs, as well as between the bloodstream and body tissues.
- Explain the mechanisms of oxygen and carbon dioxide transport in the blood, including the role of hemoglobin in oxygen transport and the various forms in which carbon dioxide is carried in the blood.
- Analyze the neural mechanisms that regulate respiration and the factors that influence the rate and depth of breathing, including chemical and physical factors.
- Assess how the respiratory system adjusts during exercise and in response to high altitude, including the physiological changes that occur and the implications for oxygen delivery and carbon dioxide removal.
- Describe common respiratory disorders such as Chronic Obstructive Pulmonary Disease (COPD), asthma, and lung cancer, including their causes, symptoms, and potential treatments.
- Through a case study, apply their understanding of the respiratory system's anatomy, physiology, and pathophysiology, specifically assessment of respiratory function, interpretation of relevant diagnostic tests, and assessment of appropriate management strategies for respiratory conditions.

As a result of completing the lab for this module, the student will be able to:

- Describe the structures in the respiratory system and their functions.
- Explain the pathway that air travels in the respiratory tree and the structural changes that occur in the airway.
- Describe the differences between the right and left lungs, along with the components of lung anatomy.
- Explain the respiratory volumes, how they are measured in pulmonary function tests, and why these are relevant clinically.

Module 6: The Digestive System

This module will discuss the anatomy and physiology of the digestive system.

The student will be able to:

- Describe the tunics of the alimentary canal and how they are altered in specific organs.
- Identify the gastrointestinal tract and accessory organs, including the gross and histological features of each organ and how they aid in the digestive process.
- Explain the histology of the alimentary canal and the significance of its nerve and blood supply.
- Summarize the regulatory mechanisms of the digestive system, including neural and hormonal controls.
- Discuss the composition and function of saliva, as well as the regulation of its secretion.
- Explain the physiology of the pharynx, esophagus, and the steps of the deglutition reflex.
- Describe the phases of gastric secretion (cephalic, gastric, and intestinal) and the role of stomach hormones in digestion.
- Describe the histological structure of the small intestine and its associated glands, as well as how these structures contribute to the digestive activities of the small intestine.
- Examine the role of bacterial flora in the large intestine, the digestive functions of the large intestine, and the defecation reflex mechanism.
- Explain the histological features of the liver, its physiological roles in the body, the production and function of bile, as well as the role of the pancreas and gallbladder in digestion, including the secretion of pancreatic juice and its contribution to the digestive process.

As a result of completing the lab for this module, the student will be able to:

- List the functions of the digestive system.
- Describe the structures of the alimentary canal wall.
- Identify the organs of the gastrointestinal tract and accessory organs.
- Recall distinguishing features of each organ in the system and how they relate to functions of the organ.

Module 7: The Urinary System

This module will explain the anatomy and physiology of the urinary system, specifically the renal system and the mechanisms responsible for urine formation and excretion.

The student will be able to:

- Describe the components of the renal corpuscle and their general functions in urine formation.
- Explain the filtration membrane and its components within the nephron.
- Compare and contrast the functions of the proximal convoluted tubule (PCT), loop of Henle, distal convoluted tubule (DCT), and collecting ducts in urine formation.
- Define glomerular filtration rate (GFR) and its significance in kidney function.
- Analyze the intrinsic and extrinsic control mechanisms regulating GFR, including the renin-angiotensin-aldosterone system (RAAS) and mechanisms affecting the GFR.
- Compare and contrast different types of carrier-mediated transport involved in reabsorption and secretion in the kidney.
- Define transport maximum, renal threshold, and their importance in renal physiology.
- Explain the concept of renal clearance and its significance in measuring kidney function.
- Describe the mechanisms involved in regulating urine concentration and volume.
- Explain how the kidneys regulate blood pressure, osmolarity, and pH to maintain homeostasis.
- Identify the histological features of the ureters, urinary bladder, and urethra and their roles in urine transport.
- Describe the micturition reflex and its coordination with the nervous system.

As a result of completing the lab for this module, the student will be able to:

- List the functions of the urinary system.
- Describe the structures of the urinary system including the kidneys, ureters, bladder and urethra, including the differences between males and females.
- List the functions of the components of the kidney.
- Trace the blood flow and path of urine through the kidney.
- Describe the characteristics of urine, how abnormalities of urine are detected via urinalysis, and what typical laboratory results indicate.

Module 8: Fluid, Electrolyte, and Acid-Base Balance

This module will discuss how the body maintains fluid, electrolyte, and acid-base balances, including the symptoms that occur as a result of imbalances in these systems.

The student will be able to:

- Explain the distribution of water in the body, including intracellular and extracellular compartments.
- Describe the composition of body fluids in different compartments and the physiological significance of each component
- Describe the mechanisms that drive fluid movement among compartments, including osmosis, diffusion, and active transport.
- Identify the homeostatic mechanisms that regulate water intake and output, including the roles of thirst and diuresis.
- Evaluate how antidiuretic hormone (ADH) affects the kidneys and the factors that control ADH release.
- Identify the signs and symptoms of dehydration, overhydration, hyponatremia, and hypernatremia, including how they are linked and their pathophysiological causes.
- Explain the role of sodium in fluid and electrolyte balance and the consequences of its imbalance.
- Analyze the regulation of sodium and potassium, including the role of aldosterone, the renin-angiotensin system, natriuretic peptides, and hydrogen ions.
- Describe how calcium and phosphate balance is regulated and the hormonal controls involved, such as parathyroid hormone and calcitonin.
- List the names of electrolyte imbalances and their signs/symptoms and significance.
- Explain the regulation of anions, including chloride and bicarbonate, and their roles in maintaining electroneutrality and pH balance.
- Describe the different chemical buffer systems in the body and their importance in maintaining plasma and urine pH within a narrow range.
- Compare and contrast how the respiratory system and the kidneys regulate hydrogen ion concentration and how these systems respond to acid-base imbalances.
- Identify metabolic and respiratory acidosis and alkalosis, their causes, and how they are compensated in the body.

As a result of completing the lab for this module, the student will be able to:

- Describe the drivers of fluid balance in the body and how it moves to various compartments by modeling osmotic gradients with an osmosis chamber.
- Examine the effects of tonicity changes on red onion cells to demonstrate fluid movement from cells.
- Model the effects of changes in activity and the PCO₂ in the blood and how it is buffered by bicarbonate in the plasma.

Module 9: The Reproductive System

This module will compare and contrast the anatomy and physiology of the male and female reproductive systems.

The student will be able to:

- Compare and contrast the sexual development of the male and female embryo and fetus.
- Describe the components of the male reproductive system, including the scrotum, testes, penis, male duct system, and accessory glands, and their functions.
- Explain the process of spermatogenesis.
- Explain the physiological mechanisms underlying male sexual response, including physiological changes that occur during arousal and intercourse.
- Discuss the hormonal regulation of male reproductive functions and the production of sperm.
- Explain the composition of semen and the contributions of each of the accessory glands to its composition.
- Identify the anatomy of the female reproductive system, including the structures and roles of the ovaries, female duct system, external genitalia, female perineum, and mammary glands.
- Describe oogenesis and the stages of the ovarian cycle, including the follicular phase, ovulation, and luteal phase.
- Explain the hormonal regulation of the ovarian cycle and its impact on female reproductive physiology.
- Describe the uterine cycle, specifically the phases and the role of the endometrium in preparation for potential pregnancy.
- Assess the effects of estrogens and progesterone on the female body and their importance in the uterine cycle and pregnancy.
- Describe the female sexual response, including physiological changes that occur during arousal and intercourse.

As a result of completing the lab for this module, the student will be able to:

- Name the external genitalia structures, primary and accessory organs and ducts of the reproductive systems.
- List the pathway sperm travels to fertilize an ovum.

Required labs and assignments:

The laboratory portion of this course will be delivered using virtual labs and interactive simulations led by an experienced lab instructor. Students will be assessed on the content presented in the lab portion of each module. The following lab components are required for all students:

- Students must read all lab content and should be able to demonstrate mastery of all student objectives on the module exam.
- Students must watch all lab video demonstrations in their entirety.
- Students must complete the laboratory quiz for each module.

Suggested Timed Course Schedule (to complete the course within a typical college semester)

All Portage courses are offered asynchronously with no required schedule to better fit the normal routine of adult students, but the schedule below is suggested to allow a student to complete the course within a typical college semester. Students may feel free to complete the course on a schedule determined by them within the parameters outlined under “Course Progression.”

<u>Time Period</u>	<u>Assignments</u>	<u>Subject Matter</u>
Days 1-11 (1.5 weeks)	Module 1	Blood
Days 12-22 (1.5 weeks)	Module 2	Cardiovascular System: The Heart
Days 23-33 (1.5 weeks)	Module 3	Cardiovascular System: Blood Vessels
Days 34-44 (1.5 weeks)	Module 4	The Lymphatic System and Immunity
Days 45-55 (1.5 weeks)	Module 5	The Respiratory System
Days 56-66 (1.5 weeks)	Module 6	The Digestive System
Days 67-77 (1.5 weeks)	Module 7	The Urinary System
Days 78-88 (1.5 weeks)	Module 8	Fluid, Electrolyte, and Acid-Base Balance
Days 89-99 (1.5 weeks)	Module 9	The Reproductive System
Days 100-110 (1.5 weeks)	Final Exam	Based upon module material

Grading Rubric:

Check for Understanding =	1 pt.
9 Module Problem Sets = 5 pts. each x 9 =	45 pts.
9 Module Exams = 150 pts. each x 9 =	1,350 pts.
9 Lab Quizzes = 5 pts. each x 9 =	45 pts.
9 Case Studies = 10 pts. each x 9 =	90 pts.
<u>Final Exam = 200 pts.</u>	<u>200 pts.</u>
Total	1,730 pts.

The current course grade and progress is continuously displayed on the student desktop.

Grading Scale:

96.5% - 100% = A+
 92.5% - 96.4% = A
 89.5% - 92.4% = A-
 86.5% - 89.4% = B+

82.5% - 86.4% = B
79.5% - 82.4% = B-
76.5% - 79.4% = C+
72.5% - 76.4% = C
69.5% - 72.4% = C-
66.5% - 69.4% = D+
62.5% - 66.4% = D
59.5% - 62.4% = D-
0% - 59.4% = F

External References:

If the student desires to consult a reference for additional information, the following textbooks are recommended as providing complete treatment of the course subject matter.

- Elaine N. Marieb and Katja Hoehn, **Anatomy & Physiology**, Pearson
- Frederic Martini, Judi L. Nath, and Edwin F. Bartholomew, **Fundamentals of Anatomy & Physiology**, Pearson

NOTE: We do not support the use of outside resources to study, except the ones listed above.

Learning Support Services:

Each student should be sure to take advantage of and use the following learning support services provided to increase student academic performance:

Video lectures: Supports diverse learning styles in conjunction with the text material of each module

Messaging system: Provides individual instructor/student interaction

Tech support: Available by submitting a help ticket through the student dashboard

Accommodations for Students with Learning Disabilities:

Students with documented learning disabilities may receive accommodations in the form of an extended time limit on exams, when applicable. To receive the accommodations, the student should furnish documentation of the learning disability at the time of registration, if possible. Scan and e-mail the documentation to studentservices@portagelearning.edu. Upon receipt of the learning disability documentation, Portage staff will provide the student with instructions for a variation of the course containing exams with extended time limits. This accommodation does not alter the content of any assignments/exams, change what the exam is intended to measure or otherwise impact the outcomes of objectives of the course.

One-on-one Instruction:

Each student is assigned to his/her own instructor. Personalized questions are addressed via the student dashboard messaging system.

Online learning presents an opportunity for flexibility; however, a discipline to maintain connection to the course is required; therefore, communication is essential to successful learning. **Check your messages daily.** Instructors are checking messages daily Monday-Friday to be sure to answer any questions that may arise from you. It is important that you do the same so you do not miss any pertinent information from us.

Holidays:

During the following holidays, all administrative and instructional functions are suspended, including the grading of exams and issuance of transcripts.

New Year's Day

Easter

Juneteenth

Labor Day

Christmas Break

MLK Day

Memorial Day

Independence Day

Thanksgiving weekend

The schedule of holidays for the current calendar year may be found under the Student Services menu at www.portagelearning.edu

Code of Conduct: Students are expected to conduct themselves in a way that supports learning and teaching and promotes an atmosphere of civility and respect in their interactions with others. Verbal and written aggression, abuse, or misconduct is prohibited and may be grounds for immediate dismissal from the program.

This is a classroom; therefore, instructors have the academic freedom to set forth policy for their respective class. Instructors send a welcome e-mail detailing the policy of their class, which students are required to read prior to beginning the course.

Grievances: If a student has a complaint about the coursework or the instructor, the student is advised to first consult the instructor, who will be willing to listen and consider your concern. To file a formal grievance for consideration by the Academic Review Committee, the process must be initiated by requesting an appeal form from academics@portagelearning.edu.

Remediation: At Portage Learning we allow a "one-time" only opportunity to re-take an alternate version of **one** module exam on which a student has earned a grade lower than 70%. This option must be exercised before the final exam is started. If an exam is retaken, the original exam grade will be erased, and the new exam grade will become a permanent part of the course grade. However, before scheduling and attempting this retest, the student must resolve the questions they have regarding the material by reviewing both the old exam and the lesson module material. Once ready to attempt the retest of the exam they must contact their

instructor to request that the exam be reset for the retest. Remember, any module retest must be requested and completed **before** the final exam is opened.

Note: Exams on which a student has been penalized for a violation of the academic integrity policy may not be re-taken.

Syllabi are subject to change as part of ongoing educational review practices. Students are responsible for accessing and using the most recent version of the course syllabus.