

Prerequisites: General biology and chemistry

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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 121 is offered continuously

Course Description: This course will provide the student with the fundamentals of nutrition, both in theory and application. The digestion, absorption, metabolism, and functional importance of nutrients are emphasized. Basic principles of applied nutrition such as energy balance, weight control, and the role of nutrition from birth to death are discussed. The mechanisms and onset of disease states as a result of insufficient nutritional intake are examined. Case studies encourage students to apply the information and prepare them for healthy living. Upon course completion, students will be able to apply nutrition principles to their own lives and be able to make informed nutrition choices.

Course Outcomes: As a result of this course experience a student should be able to:

- Identify and explain the components of nutrition including the anatomy and physiology of the gastrointestinal tract, as well as nutrient composition and classification including the macromolecules, vitamins and minerals
- Describe the concepts related to energy balance, the differences between healthy and unhealthy weight loss practices and how to utilize tools in the field to promote healthy food choices
- Explain the pathophysiology of common digestive disorders and diseases and complications related to nutrient deficiencies and overnutrition
- Identify the nutritional needs throughout the lifespan
- Recognize how nature and nurture affect nutritional outcomes, eating habits and eating disorders.

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

^{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.

Each of these BIOL 121 student learning outcomes is measured:

- Directly by:
- (1) Module application problems (with instructor feedback)
 - (2) Module exams
 - (3) Case studies
 - (4) Cumulative final exam

Indirectly: Through use of an end of course student-completed evaluation survey

Course Delivery: This course is asynchronously delivered online. Contact hours include 50 - 60 hours of reviewed module assignments with instructor feedback and video lectures. There are 6 additional contact hours composed of secure online exams as well as 6 hours of case studies.

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.

Module Problem Sets: The practice problems within the modules are a part of your final grade, and the module work will be reviewed for completeness (not correctness) by the instructor. **Be sure to answer all of the problems, being careful to answer the questions in your own words at all times since this is an important part of adequate preparation for the exams.** After you answer the practice problems, compare your answers to the solutions provided at the end of the module. If your answers do not match those at the

end, attempt to figure out why there is a difference. If you have any questions, please contact the instructor via the Canvas messaging system (see Inbox icon).

NOTE: Module problem sets are not an option or a choice; they are required. This means that you must complete all the review questions within the modules. Not only are problem sets class participation, they are the best way to prepare for the exams.

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 Topics

- Module 1: In this module students are introduced to the study of nutrition and aspects of health. Content also includes an overview of the calculating calories and energy needs as well as an introduction to tools used in making healthy food choices.
- Module 2: In this module students will cover the physiologic process of digestion and have an overview of common digestive disorders. Macronutrients (carbohydrates, proteins, and fats) are covered in detail including composition and digestion of each.
- Module 3: In this module students are introduced to the idea of energy balance with a discussion of healthy weight loss. Content also includes a brief overview of fad diets so that students can recognize unhealthy weight loss techniques.
- Module 4: In this module students will have a thorough overview of fat- and water-soluble vitamins as well as minerals. They will be provided with specific examples of each as well as digestion of each class. Complications and the various states of disease caused by deficiencies in vitamins/minerals will be addressed.
- Module 5: In this module students will learn the importance of physical fitness and the types of energy utilized in various forms of exercise. Content also includes a discussion on various eating disorders and treatment as well as a brief discussion on undernutrition.
- Module 6: This module covers the nutritional needs throughout the lifespan. Content includes a discussion on pregnancy and goes on to discuss specific needs from infancy through older adulthood.

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."

Time Period

Days 1-16

Assignments

Module 1, Exam 1

Case study #1

Subject Matter

Overview of nutrition and

energy needs

Days 17-33	Module 2, Exam 2 Case study #2	Overview of digestion and macronutrients
Days 34-50	Module 3, Exam 3 Case study #3	Energy balance and weight loss
Days 51-67	Module 4, Exam 4 Case study #4	Overview of vitamins and minerals
Days 68-84	Module 5, Exam 5 Case study #5	Physical fitness and eating disorders
Days 85-101	Module 6, Exam 6 Case study #6	Nutrition throughout the life span
Days 102-108	Final Exam	Based upon module material

Grading Rubric:

Check for Understanding =	1 pt.
6 Module Problem Sets = 5 pts. each x 6 =	30 pts.
6 Module Exams = 100 points each x 6 =	600 pts.
6 Case Studies = 30 points each x 6 =	180 pts.
<u>Final Exam = 120 pts.</u>	<u>120 pts.</u>
Total	931 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

Suggested 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:

- Sereen S. Gropper, Jack L. Smith, **Advanced Nutrition and Human Metabolism**, Cengage Learning
- Lori A. Smolin, **Nutrition: Science and Application**, Wiley

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.