

Health Sciences 1H06 A/B
Human Anatomy and Physiology
Fall & Winter

Course Description

An examination of structure-function relationships in the human body systems including the integument, nervous, musculoskeletal, endocrine, cardiovascular, immune, respiratory, gastrointestinal, urinary and reproductive systems with an emphasis on the role of each system in maintaining homeostasis.

Lecture (two hours), lab or tutorial (two hours); two terms

Prerequisite(s): Registration in the B.Sc.N. Basic (A) Stream

Antirequisite(s): BIOLOGY 1J03, BIOLOGY 2A03 , HTHSCI 1H03, 1HH3, HTHSCI 2F03 , HTHSCI 2FF3 , HTHSCI 2L03 , HTHSCI 2LL3 , KINESIOL 1A03 , 1A06, KINESIOL 1AA3 , 1X06, KINESIOL 1Y03 , KINESIOL 1YY3 , MEDPHYS 4XX3, SCIENCE 4XX3

Co-requisite(s): WHMIS 1A00

Learning Outcomes

This introductory human anatomy and physiology course is offered to level one students enrolled in the McMaster Mohawk Conestoga BScN Program (basic stream). Through complimentary weekly activities, (lectures, tutorials and laboratories) students will begin to develop an understanding of the complex homeostatic mechanisms contributing to the maintenance of health. Selected concepts in anatomy and physiology will be explored through tutorial sessions utilizing a person-centred, problem-based learning approach, while online & virtual laboratory sessions will afford students with the opportunity to further develop their knowledge (knowing) of anatomy and physiology through a variety of learning-exercises. The learning activities in this course will aid students in developing a better understanding of how scientific (empiric) knowledge guides clinical practice and will provide them with the foundational knowledge necessary to transition from exploring anatomy and physiology in the context of health to that of health and healing in the latter years of their program. Integrating the salient aspects of anatomical and physiological concepts and theories will help students develop their noticing and interpreting skills as part of the clinical reasoning process.

Overview of Approach to Teaching and Learning:

Learning Outcomes

Upon the completion of this course, students will be able to:

1. Describe the normal structure & function of the organ systems of the body.
2. Describe the mechanisms by which body systems maintain homeostasis.
3. Recognise how scientific knowledge guides clinical practice.

Learning Activities

Fall Online Lectures / Winter In-Person (2 hours per week, 12-week course of study per semester)
 Emphasize integration of anatomy (structure) and physiology (function) through regional and/or systems approach.

Online Learning Modules (1 hour each, 3 modules)
 Emphasize integration of anatomy (structure) and physiology (function).

Fall Online Laboratories / Winter In-Person (2 hours, alternate weeks)
 Reinforce structure / function relationships through virtual lab exercises.

Fall Virtual Tutorials / Winter In-Person (2 hours, alternate weeks)
 Support structure / function integration and basic science / clinical relationships through group discussion / presentation.

Online Learning Management System (avenue to learn)

Avenue to learn (Avenue) will be used by the faculty to convey information to all students taking this course. Avenue will also be used to post course content (e.g. lecture slides, lecture captures, assignments, etc) and release marks; therefore, regular (daily) use of Avenue is essential.

Learning Sequence

Fall <i>“Communication & Locomotion”</i>	Winter <i>“Homeostasis”</i>
Anatomical Terminology, Homeostasis	Cardiovascular System
Tissues & Integument	Respiratory System
Nervous System	Immune System
Autonomic & Somatic	Gastrointestinal System
Special Senses	Urogenital System
Musculoskeletal System	(including acid-base regulation)
Endocrine System	Reproductive Biology

The instructor reserves the right to modify elements of the course and will notify students appropriately, either in class or on Avenue (McMaster Undergraduate Course Management Policy, 2018).

Never lose sight of the fact that you are responsible for your own learning. Your goal should not be simply to memorize facts but to be able to understand and apply those facts in a meaningful way.

Evaluation Measures:

Fall		Winter	
Evaluation Component	% of Fall Semester Grade	Evaluation Component	% of Winter Semester Grade
Online Quizzes (5)	15	Online Quizzes (5)	15
Virtual Tutorials (5)	10	Virtual Tutorials (5)	10
Online Assignment #1	12	Online Assignment #2	12
Lab Participation	3	Lab Participation	3
Test #1	20	Test #2	20
*Mid-year Exam	40	*Final Exam	40
Total	100%	Total	100%

Your Final Grade for the course will be the average of your fall and winter semester grades.

This description of evaluation measures and mark distribution is provided as a guide and may be altered due to unforeseen circumstances during the course of the year. Notification of changes will be provided on the learning management system (Avenue).

*The McMaster University Undergraduate Calendar states that you must be available for the entire range of examination dates as listed in the ‘Sessional Dates’ section.

Fall Sessional Dates: December 9 to December 22, 2021

Winter Sessional Dates: April 12 to April 28, 2022

Final grades are not official until released by the Office of the Registrar.

There will be no extra credit. Grades will not be curved.

Issues related to grades posted on Avenue must be reported to the course instructor before the midyear exam (fall semester) or final exam (winter semester) is written.

Online Quizzes (15%)

A quiz consisting of 12 multiple choice questions (MCQs) covering the previous two weeks lecture content (approximately 4 lectures) will be made accessible through the Quizzes tool on Avenue.

Quizzes will be selectively released at 12:00 am on the first Monday following each study block and close at 11:59 pm on the first Friday following each study block. Students are only afforded one attempt at each quiz and a strict time-limit of 15 minutes per quiz will be imposed. Feedback for each quiz will be provided immediately upon completion. Please consult the quiz schedule posted on Avenue.

*** Quizzes are to be written individually (i.e. not intended as a collaborative exercise) ***

The on-line quizzes are designed to help students: 1) assess their depth of knowledge related to the lecture content, 2) identify learning gaps and, 3) prepare for writing the course tests and exams.

Fall Virtual Tutorials / Winter In-Person (10%)

Your tutorial group will discuss a clinical problem accompanied by a series of questions. The clinical problems and accompanying questions will be posted in advance on Avenue. TAs will assign students responsibility for collecting and presenting information during virtual tutorial sessions.

The TA will act as a facilitator to help students work together to collect, organize and present the information, providing input to identify and correct errors, fill in important details and/or provide alternative perspectives for consideration.

Tutorial performance will be evaluated using the following criteria (10 marks):

- Present (on-time) – 1 mark
- Presentation of assigned material (clarity and organization) – 7 marks
- Participation in the group discussion (constructive input) – 2 marks

Online Assignments (12%)

A list of questions related to various course topics / concepts will be posted on Avenue. Each tutorial group will be assigned five different questions / topics to choose from. Tutorial group members are encouraged to collaborate when researching the answers to these questions; however, the assignment submission (final product) is to be one's own unique individual work.

The product may be produced in whatever format the student chooses (e.g. written response, recorded oral presentation, video demonstration, video interview / news cast, illustrative work, constructed model, etc.). Students must receive approval from their TA re: topic choice and form of work (product) the student intends to submit *before* work begins. On the due date of the assignment, students will use the Assignments tool on Avenue to submit their work. All students must provide a reference list (in APA format) citing the sources of information used in the preparation of their final product.

Marking Scheme (10 marks):

- Content – 5 marks
- Demonstrating comprehension of the subject matter – 2 marks
- Accurate and appropriate use of anatomical terminology – 1 mark
- Creativity / Style – 2 marks

Lab Participation (3%)

For the fall term, marks will be awarded for completing the online laboratory exercises (mark generated automatically). Students must complete all lab exercises and obtain a minimum mark of 80% on each exercise to earn a mark of 3/3 for participation. Students that achieve less than the minimum grade on all lab exercises will earn a mark of zero (0) for participation.

For the winter term, marks will be awarded for either completing the online laboratory exercises or for attending in-person lab sessions – lab attendance to be tracked by lab TA's.

It is the student's responsibility to ensure that they are marked present for in-person labs.

Tests (20%) & Exams (40%)

Mid-semester Tests will consist of multiple-choice questions and will be written online using the Quizzes tool on Avenue (fall term) or in-person (winter term). Consult the course schedule posted on Avenue for specific dates / times.

Midyear and Final Exams will be comprised of MCQs and figure labelling questions. These exams will be scheduled by the Registrar's Office.

Personal exam timetables are accessible through the 'Home' tab in Mosaic.

Conestoga students: information regarding the date and time of exams will be communicated by the course instructor through avenue.

Please note: **this course will use proctoring software** (Respondus LockDown + Monitor) for tests/exams. This software will require you to turn on your video camera, present identification, monitor and record your computer activities, and lock down your browser during the exam. This software will be required to be installed before the exam begins. If you have questions about this software, or concerns about the use of this software, please contact your instructor.

Missed Evaluations

Students that miss a tutorial, assignment, quiz or test may submit a McMaster Student Absence Form (MSAF) – limit of one (1) per semester.

MSAF forms should be emailed to the course professor at: hellipb@mcmaster.ca

Please keep a record of all MSAF forms submitted.

Missed tests – will be written on a predetermined date. Consult the 'Procedures for Midterm Science Exams - 1H06' document posted on Avenue for further information.

Missed exam - students that miss an exam (midyear or final) for medical or compassionate reasons must inform their academic advisor as soon as possible and provide any necessary supportive documentation as requested.

Missed midyear and final examinations will be scheduled by the Registrar as follows:

Fall semester deferred final examinations: February 22 to February 25, 2022

Winter semester deferred final examinations: June 20 to June 24, 2022

Missed tutorial – students must follow the procedures outlined in the '1H06 Tutorial Absences – Guidelines & Information' document posted on Avenue to avoid a mark of zero on their missed tutorial.

Missed assignment – students must submit a MSAF to the course professor or contact their academic advisor and provide any necessary supportive documentation as requested. The course professor will arrange an alternate due date for the submission of the assignment.

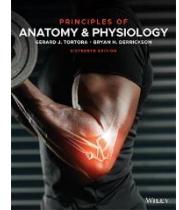
Missed online quiz – students must submit a MSAF to the course professor or provide appropriate documentation to their academic advisor.

Recommended Learning Resources:

Textbook

Tortora G.J. & Derrickson, B. (2017). *Principles of Anatomy and Physiology* (16th Ed.). Toronto: Wiley.

You may use earlier versions of the text. There are many other suitable texts. If you are unsure whether your textbook is suitable for the course, please contact the course professor.



University and BScN Program Policies and Procedures

The University has defined its expectations of students in both the academic and non-academic life of the University community. Policies that govern these practices can be found on the Undergraduate Academic Calendar or on the University website <http://www.mcmaster.ca/policy>. As policies are reviewed and revised on a regular basis, students are responsible for checking the Policies, Procedures and Guidelines section of the University website for the most up-to-date information (adapted from the Undergraduate Calendar, 2020-2021).

Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue to Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

Copyright and Recording

Students are advised that lectures, demonstrations, performances, and any other course material (**including course outlines and manuals**) provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a

concern for you.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, Avenue to Learn and/or McMaster email

Undergraduate Nursing Education Program Handbook

Students in the BScN program must also refer to program specific policies and procedures, which are found in the Undergraduate Nursing Education Program Handbook. This Handbook is located in Avenue to Learn in the student resource section of the course. Ensure you are familiar with this document, including the following important policies:

- Attendance Expectations, Policies and Procedures
- Academic Accommodation of Students with Disabilities Policy
- Academic Integrity Policy
- Discrimination, Harassment & Sexual Harassment: Prevention & Response
- Faculty of Health Science Professional Behaviour Code of Conduct for Learners
- Code of Student Rights and Responsibilities
- Student Appeal Procedures
- McMaster University Grading Scale
- BScN Program Viewing Final Exams Policy
- Electronic Communication Policy
- Professional Appearance Policy (for Professional Practice courses)
- Turnitin.com
- Request for Relief for Missed Academic Work (MSAF)

Course Specific Policies and Procedures

Please refer to the following documents located in the course policies and procedures section of Avenue for information regarding the policies and procedures governing all in-course related activities.

- 1H06 Tutorial Absences – Guidelines & Information
- Procedures for Midterm Science Exams – 1H06

Students with Academic Accommodations

Students registered with SAS (McMaster and Mohawk sites) or Accessibility Services (Conestoga site) are required to make an appointment with the course instructor within the first 3 weeks of classes to discuss their accommodation needs throughout the term.

Accommodations, including the pre-booking of scheduled exams, must be initiated and organized by the student. If a student fails to make such arrangements, they will be required to follow the same process as all other students seeking relief from missed work or the writing of a deferred exam.