

**MCMASTER UNIVERSITY  
Department of Kinesiology  
Fall 2017**

**Kinesiology 1A03/1Y03/2Y03: Human Anatomy and Physiology I**

**Course Email:** kinap@mcmaster.ca

**Instructor:** **Dr. Krista Howarth**  
Office: IWC 207  
Telephone: x 21868

**Instructional Assistant:** **Adrienne Tearle**  
Office: IWC A102/C  
Telephone: x 23565

**Lab Technician:** **Christiane DeSavigny**  
Office: IWC A102/B  
Telephone: x 21842/26867

**DESCRIPTION**

An introduction to the anatomy and physiology of embryonic development, the nervous system, including special senses and the autonomic nervous system, as well as an overview of the musculoskeletal system, including bone, joint, and muscle physiology

**COURSE OBJECTIVES**

**Course Content Objectives**

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

1. Use anatomical terms to describe body structures, regions, relative positions and anatomical positions.
2. Explain homeostasis and how it is maintained in the body.
3. Describe the anatomical and physiological changes that occur during embryonic development from conception to birth.
4. Identify and describe the general characteristics, function, location and types of tissues found in the body.
5. Describe the organization and physiology of the nervous system and the components of nervous tissue.

6. Identify the location, organization and function of key structures in the central and peripheral nervous systems.
7. Describe the physiology of nervous tissue and the conduction of action potentials.
8. Identify the location, organization and function of key structures in the visual, auditory, balance, olfactory and gustatory systems.
9. Explain the physiology behind the sensory stimulation of the special senses and the connection to the central nervous system.
10. Identify the location, organization and function of key structures of the autonomic nervous system.
11. Describe the function, histology, structure, types, and formation of bone and bone tissue.
12. Identify the bones and prominent surface features of the axial and appendicular skeleton.
13. Describe the classifications of joints and their associated movements.
14. Describe the structure and histology of skeletal muscle tissue.
15. Explain the sliding filament model and the physiology of skeletal muscle fibers, including the neuromuscular junction, excitation-contraction coupling and cross-bridge action.
16. Explain muscle force production, contraction types and fiber types.
17. Identify and describe the general action of key skeletal muscles of the head and neck, vertebral column, thoracic region, abdominal wall, scapula, shoulder, upper limb, hip and lower limb.

### **Skill and Value-Based Learning Objectives:**

**Upon completion of this course, the student will demonstrate competencies in:**

- **Personal organization and time management** in order to multi-task, set priorities, and allocate time effectively to meet deadlines such as tests, prelab quizzes, exams, and lecture/lab attendance.
- **Professional interaction and communication** via email, online forums, and face to face meetings with professors, staff, teaching assistants, and peers.
- **Critical and integrative thinking skills** as students research and answer questions based on anatomical systems based case studies.

- **Teamwork and interpersonal skills** by participation in small group laboratory exercises and/or initiating participation on discussion boards.
- **Displaying appropriate and respectful behaviour** towards the human anatomy laboratory, individuals who have donated their bodies to science, and instructors, staff, teaching assistants, and peers.
- **Reading** relevant texts and course materials and demonstrating comprehension by completing iclicker questions, weekly tests, prelab quizzes, and final exam.

## RESOURCES

**Required Resources:** All resources will be available in the Campus Store.

- Tortora and Derrickson (2014 14<sup>th</sup> edition) *Principles of Anatomy and Physiology*. John Wiley and Sons
  - You can choose one of two options:
    1. Binder Ready Book (includes E-book and Wiley Plus)
    2. E-book (includes Wiley Plus)
- Custom Lab Manual
- i-Clicker (must be registered as per instructions on Avenue for this course)
- Lab coat

### **Optional resources:**

- Mosby's Anatomy and Physiology Coloring Book, 2nd Edition (ISBN: 9780323226110)

## EVALUATION

Weekly tests:	<b>40%</b> (10 tests x 4%) 11 tests are written but the lowest score is dropped.
Prelab Quizzes:	<b>5%</b> (5 quizzes x 1%). Biweekly lab attendance is mandatory. Lab quizzes will automatically be replaced by a 0% without proof of lab attendance. <b>Prelab quizzes are released the Thursday before your lab and are due the following <u>Monday at noon</u>.</b>
iclicker	<b>5%</b> Due to the possibility of absences or technical difficulties, 90% of the questions correct over the term will equal 100% (e.g. if 40 questions are asked, 36 correct responses will count as 100%). Marks will then be calculated as a percentage of this maximum.
Final Exam:	<b>50%</b> (covering all course content)

## ATTENDANCE

Attending all sections of the course will be key to your success. All students are expected to attend lecture and lab, as well as complete all prelab quizzes, Friday tests, and exams.

**Attendance is MANDATORY at your lab.** If you do not attend your scheduled lab, you will not be given the grades you achieved on your prelab quiz.

### Labs (IAHS 451)

Labs take place **biweekly**:

#### Labs first week

L01	Tu	9:30 - 11:20
L03	Tu	11:30 - 13:20
L05	Tu	13:30 - 15:20
L07	We	9:30 - 11:20
L09	We	11:30-13:20
L11	Th	11:30 -13:20
L13	Th	13: 30 – 15:20

#### Labs second week

L02	Tu	9:30 - 11:20
L04	Tu	11:30 - 13:20
L06	Tu	13:30 - 15:20
L08	We	9:30 - 11:20
L10	We	11:30-13:20
L12	Th	11:30 -13:20
L14	Th	13:30 – 15:20

### Laboratory Safety

WHMIS 1A00 and ROUTINE PRACTICES are required safety courses for KIN 1A03/1Y03/2Y03. It is the responsibility of the student to complete these courses PRIOR TO THE FIRST LAB. WHMIS 1A00 completion is tracked centrally but ROUTINE PRACTICES is tracked by the instructor. The procedure for proving completion of ROUTINE PRACTICES is as follows:

- Go to [mosaic.mcmaster.ca](http://mosaic.mcmaster.ca) > Important Links > Health and Safety Training > search by course name > type routine practices
- Sign up for the course and wait for it to appear on Avenue
- Complete the course successfully
- Go back to [mosaic.mcmaster.ca](http://mosaic.mcmaster.ca) > Important Links > Health and Safety Training > Training Summary > take a screen capture of your summary, produce a pdf and upload it to the Assignments drop box in Avenue
- **UPLOADING A BLANK OR OUT OF DATE TRAINING SUMMARY WILL BE CONSIDERED ACADEMIC DISHONESTY** (see below for details)

Laboratory Safety procedures will be reviewed during the first lab of the year. A number of the labs involve the use of human and animal specimens. You are expected to adhere

to the laboratory guidelines at all times. Failure to do so will result in removal from the laboratory setting. Several labs will also involve examination of physiological responses on student volunteers. All risks and procedures are outlined in the lab manual and it is your responsibility to review these prior to attending the lab.

## Tests

Tests are held in bi-weekly 20-minute slots every Friday 8:30 -2:30. They are written on computers located in the computer lab in **KTH B121/123**. You will only be allowed to write your test during this time slot so please be on time to ensure you have adequate time to write your test. **Your valid McMaster picture ID must be brought to each test or you will not be permitted to write it.** During your 20 minute test time you are to **only access Avenue**. Visiting websites or accessing other documents other than Avenue (including email) during the testing times in KTH is strictly prohibited and will be considered as academic dishonesty.

## Friday Test Times:

T01	8:30 - 8:50
T02	8:50 - 9:10
T03	9:10 - 9:30
T04	9:30 - 9:50
T05	9:50 - 10:10
T06	10:10 - 10:30
T07	10:30 - 10:50
T08	10:50 - 11:10
T09	11:10 - 11:30
T010	11:30 - 11:50
T011	11:50 - 12:10
T012	12:10 - 12:30
T013	12:30 - 12:50
T014	12:50 - 1:10
T015	1:10 - 1:30
T016	1:30 - 1:50
T017	1:50 - 1:10
T018	2:10 - 2:30

### Friday Test Rules:

- Come to your assigned slot only
- No talking, AT ALL, in the test room
- Should be seated with a space between you and the next person, if possible
- All bags/notes/personal items must be left at the front of the room and must remain closed until you leave the room after your test (including cell phones)
- NO other windows or applications are allowed to be open on the computer at any time in the test room, this includes email or even the content section of this course.
- You are not allowed to use spell check
- You are not allowed to copy test questions for any reason at any time, during or after the test.
- The test is 15 minutes in length. Any questions answered after the 15 min mark will be given a grade of zero.
- If you leave your computer during/after the test, you are not allowed to return
- The TAs will not answer content questions, only technical problems with Avenue/logging in etc.
- During the test, the TA supervising is the authority in the room and has the right to ask you to move seats or ask you questions related to suspected academic dishonesty
- If you have an issue with the content of a question, email kinap@mcmaster.ca after the Monday 8:00am following the test and we will review it.
- **IF YOU ARE CAUGHT VIOLATING ANY OF THESE RULES, YOU CAN BE CHARGED WITH ACADEMIC DISHONESTY**

### POLICY REGARDING MISSED WORK

Tests, prelab quizzes or labs that are missed for any reason other than a legitimate medical/legal/religious reason automatically receive a grade of 0. There will be **no make-up tests** for the Friday tests or prelab quizzes. If you miss a test/prelab/lab due to a minor medical or personal reason, lasting up to 3 days, you may report your absence, without documentation, using the McMaster Student Absence Form (as long as the missed work is worth less than 25% of the final course grade). The MSAF can only be used **once per term**. Absences for a longer duration or for other reasons (e.g. religious) must be reported to the Faculty of Science Associate Dean's office, with documentation, and relief from term work may not necessarily be granted. Upon receipt of your MSAF or approval of your documentation from the Dean's office, the final exam will take on the value of the final exam plus the test(s)/prelab(s) you missed. When using the MSAF, please address it to tearlea@mcmaster.ca. NOTE: if your situation involves a prolonged absence and numerous missed tests, please contact the instructor as soon as possible.

iclicker questions missed for ANY reason will receive a grade of 0. Missed work documentation will not be entertained.

Students who miss a Registrar-scheduled final exam can apply to the Associate Dean's office for permission to write in the deferred final exam schedule. In all cases, appropriate documentation must be submitted to the Office of the Associate Dean, Faculty of Science, for consideration of deferred examination permission. Under no circumstances will the instructor re-schedule a final exam for individual students.

## **EMAIL POLICY**

- Only emails sent from McMaster accounts that the instructional team deem to be respectful and professional will be addressed
- Please include course code in the subject of your email.
- Emails inquiring about the Friday test sent before the following Monday at 8:00am will be deleted. This is to encourage to students to try and figure out their errors on their own. We feel this is a valuable exercise. If you still have a concern or are confused about a concept, we will happily reply to emails sent after 8:00 on Monday.

## **ON-LINE LEARNING RESOURCES**

### **Avenue to Learn: [avenue.mcmaster.ca](http://avenue.mcmaster.ca)**

- Students are expected to check Avenue to Learn at **least twice each week**. Avenue will be the instructor's main method of communication with students.
- Students are responsible for any course content that is delivered via Avenue. Details regarding this online content will be given in class.
- It is the responsibility of the student to take all necessary steps to find out about course changes including, but not limited to, class attendance, changes to schedules, announcements and instructions.
- Any instructions/announcements that are verbally given in lecture are the responsibility of the student.
- The instructor will only communicate with students via their official McMaster email account.
- Do not email instructors through Avenue email as these accounts will not be checked on a regular basis.

### **Wiley PLUS**

- Wiley PLUS is the online content associated with your textbook.
- You can access WileyPLUS directly from Avenue to Learn

*Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.*

## **USE OF COURSE MATERIALS**

Course materials provided by the instructor are for use by students registered in this class only. Under no circumstances are these materials to be shared, posted or sold to a third party without permission from the instructor. This includes, but not limited to, online posting of lecture/lab notes, online lectures, recordings of lectures, or any lab materials on a website other than the Avenue site designed for the course.

## **MODIFICATIONS TO COURSE**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes. Also, the course instructor will maintain an Avenue to Learn component for the course and students are expected to monitor (i.e., check the Avenue to Learn notice board and postings) at least twice per week and be aware of any changes that are made.

## **ACADEMIC INTEGRITY**

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences (e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript reading "Grade of F assigned for academic dishonesty", and/or suspension or expulsion from the university). It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at: <http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>.

The following illustrates only three forms of academic dishonesty:

- Plagiarism (e.g. the submission of work that is not one's own or for which other credit has been obtained),
- Improper collaboration in group work.
- Copying or using unauthorized aids in tests and examinations.
- Uploading routine practice incomplete or blank is academic dishonesty

## **MCMASTER ETHICS**

Please visit <http://reo.mcmaster.ca/> for more information on ethical issues related to the course and labs in particular.



## **ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES**

Academic Accommodation of Students with Disabilities Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140, ext. 2865 or e-mail [sas@mcmaster.ca](mailto:sas@mcmaster.ca). For further information, consult McMaster University's Policy for Academic Accommodation of Students with Disabilities.

## **STUDENT SUCCESS CENTRE**

The Student Success Centre (SSC) is a resource for all McMaster students and offers services in several areas including Academic Concerns. SSC is located in Gilmour Hall (GH) 110 and their website can be found at: <http://studentsuccess.mcmaster.ca>

Students can speak to academic counselors or review materials online to help with:

- Marks, test results, academic performance
- Motivation, interest in courses, sense of direction
- Time management, study habits, personal organization
- Stress in dealing with the academic workload
- Listening and note taking in university lectures
- Reading for university courses
- Preparing for or writing tests and exams; multiple-choice tests

## **FEEDBACK**

It really helps us improve our services when we hear from our students, faculty and staff about what we can do better. A feedback process brings to our attention situations in which we may not have adequately considered accessibility and allows us to better plan for accessibility in the future.