GENERAL COURSE INFORMATION

Physiology is the study of how cells work together to form tissues, how tissues work together to form organs, and how organs support the body. This course focuses on the structure and function of the skeletal system, muscular system, integumentary system, neuro-hormonal control, and endocrinology. Emphasis will be to develop an understanding of the integrative nature of the systems discussed.

The study of human physiology is important as it establishes a foundation in the way our body’s function. With this understanding we can then build on our knowledge to undertake further study about how the nervous system controls our movements (KIN313, 411), how the body responds to exercise (KIN 235, 335, 438), to injury (KIN 420), and to the environment (KIN 424).

LEARNING OUTCOMES

By the end of this course, you should be able to:

- Describe the structure and main function of each of the following body systems: the muscular system; central and peripheral nervous system (including the autonomic nervous system).
- Describe the chemical structures and their functions, which are important to maintain living organisms.
- Explain how the functions and regulation of the various systems are integrated in the whole organism.
- Explain how these systems are regulated to control movement, response to exercise, as well as some of the pathological consequences of system failure.

Prerequisite(s): None
Corequisite(s): None

INSTRUCTOR AND TEACHING ASSISTANTS

Aaron Chew (aaron.chew@ubc.ca)
Course Instructor

Welcome to KIN 131! I am a sessional instructor in the School of Kinesiology, a Certified Strength and Conditioning Specialist (CSCS), and a Registered Massage Therapist (RMT). I have spent the previous four seasons as a strength coach and manual therapist in the CFL with the Hamilton Tiger-Cats and BC Lions. I have also held strength and conditioning positions at other great organizations including the University of Washington, Simon Fraser University, and the Basketball BC Provincial Team.
As a strength coach and clinician, my interest in kinesiology lies in the practical application of theoretical concepts to improve performance in elite athletic populations. This includes the periodization of training to optimize physiological adaptation, as well as utilizing massage therapy to enhance recovery from training and rehabilitate orthopaedic and musculoskeletal injuries. I have special interest in advanced program design and periodization models for speed/power sports.

Joshua Webster (josh.webster@ubc.ca)
Teaching Assistant

Dr. Joshua Webster (he/him) is a recently graduated medical doctor obtaining his Bachelor of Medicine, Bachelor of Surgery (M.B.B.S) degree, with distinction, at the University of The West Indies CaveHill Campus in Barbados, his home country. Joshua moved to Vancouver in 2019 with the aspiration of becoming a sports focused physician, with interests rooted primarily in holistic patient care. He is currently doing a Master of Science in Kinesiology at the University of British Columbia in the Fitness, Aging and Stress Lab focusing on the impact of exercise and well-being on stress responses to psychosocial and physical stressors.

LEARNING MATERIALS

Required Textbook: Vander’s Human Physiology, 15th Edition

There are two options for the textbook:

ISBN:9781264167777 – This gives you online access to the eBook and SmartBook version of the text, along with access to the McGraw-Hill Connect site, which contains some of the required course activities (see Course Assessment section below).

ISBN: 9781264167760 – This gives you all the online access (same as above) + a printed copy (in loose-leaf, binder-ready form)

Note that if you took KIN132 last term, you don’t need to purchase the textbook and online access again.

COURSE LAYOUT

All of your learning activities will take place online here in the Canvas platform, as well as the Connect platform connected to the Vander’s textbook.

We will hold ‘synchronous’ sessions every Monday and Wednesday morning from 9:00 to 12:00 PM on Zoom. These are live lectures where we will deliver the course content, which will be testable on the weekly quizzes, midterm, and final exam. During these sessions, there will also be ungraded group activities that will help facilitate your learning and understanding of the course content.

If any questions come up during the session, feel free to raise your virtual hand. I do not anticipate that lectures will last the entire three hours each day, and I will stay online for open office hours Wednesdays after class, so feel free to stick around if you have further questions.
The rest of your learning in this course will be ‘asynchronous’, where you will go through the course content on your own through different materials I assign to you online. These will include textbook (SmartBook) readings, pre-recorded lectures, and quizzes. You will be going, at some extent, at your own pace, but as you will see, there will be deadlines for you to complete each module and I have set this up to support your success in this course.

**COURSE SCHEDULE**

Please see the [Overview and Weekly Schedule](#) page for a detailed outline.

**COURSE COMMUNICATIONS**

**General questions:** For any general questions about the course or course content, please ask them when we meet for our bi-weekly live lecture. We will have ample synchronous time together to address your questions.

**Personal questions:** For any topics that relate only to you (e.g. if you want to review your marks, Access & Diversity questions), please send a direct email to me or your TA.

**ASSESSMENT AND GRADING**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>% of Course Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation (via assigned readings)</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>30%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>35%</td>
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</tbody>
</table>

There will be **6 Quizzes** held throughout the term. Quizzes will always be held on Mondays during the scheduled class time and cover the previous week’s topics. The quiz will only be available during your scheduled class time, from 9:00 - 10:00 AM (PST) and consist of different styles of questions (e.g. multiple choice, short-answer, labelling, fill-in-the-blanks, multiple answer, and true/false questions). **You can start the quiz anytime during the hour, but you must complete it by 10:00 AM.**

The **midterm exam** will be in week three, covering the first half of the course content.

The **final exam** will be cumulative, and scheduled during the UBC Final Exam period. The final exam schedule is determined by the Registrar’s office, so please do not make any other commitments that could interfere with your final exams until the final exam schedule comes out.
POLICY ON GRADING PRACTICES

Graded work in this course constitutes the quizzes, midterm, final exam, and course participation. Students must complete the quizzes, midterm, and final exam on the scheduled dates. Course participation marks are awarded for work that is submitted on time. Students who miss any of these evaluations due to unauthorized absence will receive a grade of zero. Students who cannot complete the graded work due to an authorized absence will write a make-up test on a date to be determined in consultation with the instructor.

Authorized Absences: Students who know in advance that they will be unavoidably absent should appeal for special accommodation from the instructor as early in the term as possible to determine how any missed graded work will be completed. The School of Kinesiology will not normally consider special accommodation without timely notification. A minimum of two weeks notification is expected and documentation will be required.

Where prior notification of absence from graded work is not possible (e.g. due to unforeseen illness or family crisis), students should contact the instructor as soon as possible upon their return to class. Supportive documentation, submitted to the Undergraduate Advising Centre, will be requested.

Students who miss the final examination MUST apply to the Undergraduate Advising Office at the earliest possible date to request consideration for Academic Concession. Students will be asked to complete an Academic Concession Form and provide supportive documentation. Academic Concession is a privilege, not a right, and can be granted only by the Undergraduate Advising Office.

Students who plan to be absent from graded work for varsity athletics, family obligations, or other similar commitments, cannot assume they will be accommodated, and should discuss their commitments with the instructor before the official course drop date.

The University accommodates students with disabilities who have registered with Access & Diversity. Students whose attendance or academic performance may be severely affected by medical, emotional, or other disabilities should consult with the instructor at least 2 weeks before scheduled tests or exams to discuss any special accommodations that might be needed in order to complete course requirements. Supportive documentation from either Access & Diversity or a physician will be required by the Undergraduate Advising Office.

The University accommodates students whose religious obligations conflict with attendance or scheduled tests and examinations. Any accommodations should be communicated to the course instructor, preferably in the first week of class.

COMMUNICATION EXPECTATIONS

In this course, and throughout your program, you are expected to communicate in a respectful and professional manner. Although it is unlikely we will have the chance to meet face-to-face in a lecture hall on campus, this space should be considered an extension of the physical classroom, with the same expectations regarding respect and consideration for your fellow learners, teaching assistants, and instructors.

Please ensure you review and are familiar with the Student Guidelines for Respectful Online Conduct from the UBC Equity & Inclusion Office. You may also find it helpful to review UBC's Distance Learning Communication Online: Netiquette web page.

If you experience any issues with the online space, please do reach out to me for support.
YOUR PRESENCE IN THE VIRTUAL CLASSROOM

Peripheral Electronic Devices: It might be tempting to check your phone, chats, social media, newsfeeds, or other websites while you are in a synchronous session. I admit to being guilty of such behaviour myself during virtual meetings or seminars, so I can understand the temptation! After all, no one can see what you are doing, unlike in a physical setting. However, if you want to make the most of your learning opportunities, I recommend that when you sign into Canvas, you reserve that time to dedicate your focus to the course.

Video On or Off?: To promote a sense of community in our virtual classroom, my preference is for you to keep your video on during our live, synchronous sessions. However, I understand that is not always possible for different reasons and you are by no means obligated to do so. Nevertheless, if you are comfortable doing so, I very much welcome the chance to ‘meet’ you virtually during our live sessions!

The Case for Analog: I also recommend that even though you are learning online, you have a paper and pen beside you to take your notes, whether you are reviewing a paper or viewing one of the lectures. The action of putting pen to paper promotes a more active form of learning compared to keyboard typing, which tends to be automated. If you are interested in some evidence to support this, I can refer you to this paper.

YOUR WELLBEING

We are living through an extraordinary time and each of us is facing new and unique challenges and circumstances. Your safety and wellbeing are paramount. Please know that there are multiple resources available to you, including your instructor. UBC’s Keep Learning site is also an excellent resource for you.

ACADEMIC INTEGRITY

Students are expected to follow UBC policies for academic integrity and academic misconduct, which includes practices around plagiarism, referencing and citation, and copyright. For more see, UBC’s Learning Commons Academic Integrity resources.

ACCESSIBILITY

If you have any challenges accessing materials that will impact your success in this course, UBC’s Centre for Accessibility can support your needs by providing appropriate accommodations to support you.

• Web: UBC’s Centre for Accessibility website
• Email: accessibility@ubc.ca

LEARNING ANALYTICS

Some of the learning technologies used for this course collect data to support the improvement of teaching and learning. This includes the collection of data related to overall class progress to provide personalized feedback, engagement in discussion forums to support the fostering of community within the course, and how resources are being accessed to support improvements to the course design. To learn more about learning analytics at the Faculty of Education and at UBC, see the What is Learning Analytics? page.

UNIVERSITY POLICIES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual
violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious and cultural observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available from the [UBC Senate Website](http://calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0).

**STATEMENT REGARDING ONLINE LEARNING FOR INTERNATIONAL STUDENTS**

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit [http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0](http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0) for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: [https://academic.ubc.ca/support-resources/freedom-expression](https://academic.ubc.ca/support-resources/freedom-expression).

**Help Resources**

- **New to Learning Online?** Review the Faculty of Education’s [eLearning Help & Resources](http://elearninghelp.ubc.ca/).  
- **Need assistance with research or writing?** The [Education Library Research Help](http://library.ubc.ca/research) provides useful resources on these topics.  
- **Questions about assignments and learning materials?** Ask your instructor.  
- **Technical difficulties with this Canvas course?** Use the 'Help' link in the blue left-hand menu.