



School of Science
KINE 100
Anatomy and Physiology I: Cells, Tissues, and Muscles
Term: Winter 2025
Number of Credits: 3

Course Outline

INSTRUCTOR: Liris Smith, PhD

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PHONE: (867) 456-8526

TIME/DATES: Tues. & Thurs. 1:00 – 2:30 pm lectures,
Lab: dates/times to be confirmed, some Tuesdays 12:30 – 3:00

CLASSROOM: A2605

OFFICE HOURS: *please email*

COURSE DESCRIPTION

This course introduces students to the anatomy and physiology of the human body. Students examine the mechanisms of body function, organized around the central theme of homeostasis – how the body meets changing demands while maintaining the internal constancy necessary for all cells and organs to function. Course content focuses on cell and tissue anatomy and physiology, and systems (and organs within these systems) including the integumentary, nervous, musculoskeletal, and endocrine systems. Components related to exercise physiology will be integrated throughout the course.

Students are encouraged to take the companion course, KINE 101.

COURSE REQUIREMENTS

Prerequisite(s): Biology 12 or BIOL 060 at Yukon University or special permission from the instructor. Students are expected to have a basic understanding of biological systems.

EQUIVALENCY OR TRANSFERABILITY

Course transfer for this course is currently being determined. Students should be aware that receiving institutions determine course transferability. Find further information at:

<https://www.yukonu.ca/admissions/transfer-credit>

LEARNING OUTCOMES

Upon successful completion of the course, a student will be able to:

1. describe and analyze the structure and physiological processes of cells and tissues,
2. describe and compare the structure of several organ systems, such as the integumentary, nervous, musculoskeletal, and endocrine systems,

3. discuss and explain the functions of the organ systems, how they contribute to homeostasis and exercise physiology,
4. consult and compare information from various sources on tissues and organ systems, and
5. appreciate and discuss the complexity and diversity of the human body, and describe how basic pathology can influence functioning and homeostasis.

COURSE FORMAT

This course will have two 1.5-hr lectures each week and approximately 6 – 8 hours of lab activities across the semester. Lab times will be announced in class. Students are expected to keep up with assigned course readings and complete assignments as necessary outside of scheduled hours each week. Although it will vary from individual to individual, students should expect to spend 4-5 hours on course material outside of the classroom time (per week) on studying or completing assignments.

Delivery format

This course will be delivered in a face-to-face (in person) format, with occasional synchronous online sessions. Students will be expected to access the YU online learning platform for additional material (Moodle). Labs and activities can only be conducted in person.

EVALUATION

Quizzes	15 %
Assignments	20 %
Midterm Exam	25 %
Participation	10 %
Final Exam	30 %
Total	100%

Each Student will write 5-page, double-spaced, paper titled “The Physiological Effects of exercise (specific – i.e., strength training, aerobic activity, plyometrics, yoga) on (one system: integumentary, skeletal, muscular, nervous or endocrine)”. This paper will be due in early December (**date TBA**). All papers require use of APA references guidelines, available from the Yukon University library. Further information on topic selection will be available in class.

Both midterm and final exams will consist of multiple choice, matching, true/false and short answer questions. The weekly quizzes will assist students in preparing for the midterm and final exam.

COURSE WITHDRAWAL INFORMATION

Refer to the YukonU website for other important dates.

<https://www.yukonu.ca/admissions/important-dates>

TEXTBOOKS & LEARNING MATERIALS

Thompson, G. (2019). Understanding anatomy & physiology: A visual, auditory, interactive approach (3rd ed.). F.A. Davis Co. 5

Optional workbook

Thompson, G. (2019). Workbook to accompany understanding anatomy & physiology: A visual, auditory, interactive approach (3rd ed.). F. A. Davis Co.

ACADEMIC INTEGRITY

Students are expected to contribute toward a positive and supportive environment and are required to conduct themselves in a responsible manner. Academic misconduct includes all forms of academic dishonesty such as cheating, plagiarism, fabrication, fraud, deceit, using the work of others without their permission, aiding other students in committing academic offences, misrepresenting academic assignments prepared by others as one's own, or any other forms of academic dishonesty including falsification of any information on any Yukon University document.

Please refer to Academic Regulations & Procedures for further details about academic standing and student rights and responsibilities. <https://www.yukonu.ca/policies/academic-regulations>

Note that artificial intelligence tools such as Chat GPT can be useful in the same way as a web search or Wikipedia. They can be a starting point but cannot be used to do the work for you. Simply copying the output from an AI source such as Chat GPT and submitting it as your own work will be considered plagiarism the same as if you copied directly from a book, webpage, or classmate. Furthermore, appropriate referencing is expected in submitted work. You would not reference Chat GPT as it is not an actual source of information, much as you would not reference the results of a web search. References should be to the published scientific literature, or, when appropriate, to the popular scientific media.

ACCESSIBILITY AND ACADEMIC ACCOMMODATION

Yukon University is committed to providing a positive, supportive, and barrier-free academic environment for all its students. Students experiencing barriers to full participation due to a visible or hidden disability (including hearing, vision, mobility, learning disability, mental health, chronic or temporary medical condition), should contact [Accessibility Services](#) for resources or to arrange academic accommodations: access@yukonu.ca.

TOPIC OUTLINE

DATE	Topics	Chapter
Jan. 7 – 9*	Introduction, cell chemistry	Chapter 1, 2

Jan. 14 – 16	Cells, Tissues	Chapter 3, 5
Jan. 21 - 23	Tissues, Integumentary System	Chapter 5, 6
Jan. 28 - 30	Skeleton and joints	Chapter 7, 8, 9
Jan. 28	<i>Skeleton and joint lab</i>	<i>Tuesday 12:30 pm - 3:00 pm</i>
Feb. 4 - 6	Muscular system	Chapter 10
Feb. 11 - 13	Muscular system cont. <i>Muscle and movement lab</i> Review	Chapter 10
Feb. 17 – 21	<i>Reading Week, no classes</i>	
Feb. 25	Midterm Exam	
Feb. 27	Nervous system (central)	Chapter 11
Mar. 4 - 6	Nervous system (central)	Chapter 11
Mar. 11 - 13	Nervous system (peripheral)	Chapter 12
Mar. 18 - 20	Endocrine system	Chapter 13
Mar. 25 - 27	Endocrine system	
Apr. 8	Paper presentations and review	
Apr. 10	Last class Paper presentations and review	
Apr. 22, 1:00 – 4:00 PM	<i>Final exam</i>	

**topic dates are approximate, it will depend on how fast we move through material.*