School of Science

# KINE 101

## Anatomy and Physiology II: Homeostasis and Human Organ Systems

**Term: Winter 2026**

**Number of Credits: 3**

# Course Outline

**INSTRUCTOR: Liris Smith**
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**PHONE: 867 333 9327**
**TIME/DATES:**
**OFFICE HOURS: by appointment**

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### COURSE DESCRIPTION

This course is intended to be a companion course to KINE 100 to explore the 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. This course will briefly review cell and tissue anatomy and physiology. Students will conduct in-depth study of the following organ systems: circulatory, respiratory, lymphatic/immune, digestive, urinary (including electrolyte and acid/base balance) and reproductive. This course will also include brief summaries of pathology related to the systems covered.

### COURSE REQUIREMENTS

Prerequisite(s): Biology 12 or BIOL 060 at Yukon University. or special permission from the instructor.

### 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:

- demonstrate a basic understanding of the fundamental physiological processes of homeostasis, cell physiology, and basic organ systems of human body such as the respiratory system, circulatory system, immune/lymphatic system, urinary system, digestive system and reproductive system,
- demonstrate an understanding of the structure and function of the organ systems listed above, and
- have strengthened their research and writing skills using varied appropriate resources, sources,
- demonstrate curiosity, wonder, critical thinking, of the complexity and diversity of the human body and the confidence to continue learning, self-reflection, and questioning and demonstrate self-direction and initiative in their learning.

### COURSE FORMAT

The class format will consist of face-to-face lectures, and class discussions and some hands-on activities. Some classes will take place online (zoom). Students are expected to participate in some lab and activity sessions. These will be announced in class.

**Delivery format**

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

**EVALUATION**

| | |
|---|---|
| Quizzes | 15 % |
| Assignment - Paper | 20 % |
| Midterm Exam | 25 % |
| Participation | 10 % |
| Final Exam | 30 % |
| Total | **100%** |

Each Student will write a 5 (max) page, double-spaced paper titled "The Physiological Effects of (____) disease or condition (ie. Asthma, diabetes, Crohn's, endometrioses) on (one system: respiratory, circulatory, digestive, urinary, reproductive or lymphatic)". This paper will be due by April 7, 2024. All papers require use of APA references guidelines, available from the Yukon University library. Further information on topic selection will be made 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 (4th ed.). F.A. Davis Co. 2nd and 3rd editions are also options

**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

**ACADEMIC ACCOMMODATION**

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon University Academic Regulations (available on the Yukon University website). It is the student's responsibility to seek these accommodations by contacting the Learning Assistance Centre (LAC): LearningAssistanceCentre@yukonu.ca.

**TOPIC OUTLINE**

| DATE | CLASS CONTENT | Chapter in Text |
|---|---|---|
| **January 6/8** | Introduction, review of cell biology , Tissues | Chapter 1, 2, 3, 5 |
| **January 13/15** | Overview of systems, Blood and Heart | Chapter 14 |
| **January 20/22** | Heart and Circulatory system | Chapter 15, 16 |
| **January 27/29** | Lymphatics and immunity | |
| **Feb 3/5** | Respiratory system | Chapter 17 |
| **Feb 10/12** | Review | Chapter 18 |
| **Feb 17/19** | Midterm and digestion | |
| **Feb 24/26** | metabolism and Nutrition | Chapter 21, 22 |
| **Mar 3/5** | Urinary and acid base/electrolyte | Chapter 19, 20, 21 |
| **Mar 10/12** | reading week | |
| **Mar 17 /19** | Female reproductive systems | Chapter 23 |
| **Mar 24/26** | Male Reproductive system | Chapter 23 |
| **Mar 31/Apr 2** | Exercise effects in relation to systems covered in this course | |
| **April 7/9** | paper presentations | |
| **April 14** | Review and exam | |