NORTHWESTERN POLYTECHNIC

DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES
COURSE OUTLINE – Winter 2024
PE1000 (A3): Structural anatomy – 3 (3-0-2) UT 75 HRS, 15 WKS.

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR:	Dr. Alexander Villafranca	**PHONE:**	780-539-2971
OFFICE:	K220	**E-MAIL:**	avillafranca@nwpolytech.ca
OFFICE HOURS:	By appointment		

CALENDAR DESCRIPTION: Introductory study of human anatomy. Students learn structural and functional components of selected systems of the human body.

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Assigned readings: Required readings will be freely available and posted on D2L.

Optional texts:
- Behnke, R.S. Kinetic anatomy (3rd or 4th edition). Human kinetics. **This is a great textbook with a kinesiology focus, and a straightforward communication style. Many of my lectures draw heavily on the contents of this book (in addition to the assigned readings). Not mandatory, but valuable.**
- Martini, F.H., Ober, W.C., Bartholomew, E.F., and Nath, J.L. (2013). Visual Essentials of Anatomy and Physiology. Boston: Pearson**. This textbook is a good resource if you have already purchased it for another course. However, I will post the very few chapters that are mandatory on D2L.**

DELIVERY MODE(S): This course will be delivered through a variety of lecture-based strategies including discussions, group work, in-class activities, labs, and individual student work.

LEARNING OUTCOMES:

By the end of the course, students will be able to:

- Communicate effectively about anatomical principles, concepts, structures, and their relationships using appropriate terminology.
- Recognize and describe a range of anatomical structures, including systems, organs, and tissue types.
- Describe tissues and organs at the macroscopic and microscopic levels, including their structure and function.
- Develop critical thinking and problem-solving skills in the context of anatomy.
- Understand how anatomical structures contribute to human movement.
- Identify surface landmarks and palpate anatomical structures.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page http://www.transferalberta.alberta.ca.

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.

EVALUATIONS:

Lecture quizzes	10%
Bell ringer exam 1	15%
Bell ringer exam 2	15%
Lecture test 1	15%
Lecture test 2	15%
Final exam	30%

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100		C+	2.3	67-69
A	4.0	85-94		C	2.0	63-66

A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

Lectures
M   13:00-14:20, J202
F   11:30-12:50, J202

Labs
L1- T 11:30-13:20, M119
L2- R 11:30-13:20, M119

The instructor reserves the right to alter the pace, scope, and/or breadth of the topics covered to facilitate student learning and to cohere with the natural flow of class discussions.

Wk	Date	Tentative Schedule
W1	J8	Introduction to anatomy (divisions, principles, hierarchy)
W1	J12	Anatomical terminology (terms of direction, planes, axes)
W2	J15	Organ systems & their contribution to human movement
W2	J19	Skeletal system overview (organization, osteology)
W3	J22	Arthrology 1- joint tissues and their contribution to human movement
W3	J26	Arthrology 2- joint types
W4	J29	Myology overview (muscle tissue type, muscle architecture)
W4	F2	Nervous system overview (organization, cell types)
W5	F5	**Test 1**
W5	F9	The shoulder (bones, joints, ligaments, movements, and muscles)
W6	F12	The elbow (bones, joints, ligaments, movements, and muscles)
W6	F16	The wrist and hand (bones, joints, ligaments, movements, and muscles)
W7	F19	**Winter break**
W7	F23	**Winter break**
W8	F26	Nerves and blood vessels of the upper extremity
W8	M1	The head (bones, joints, ligaments, sinuses, movements, and muscles)
W9	M4	The spinal column and pelvis (bones, joints, ligaments, movements, and muscles)
W9	M8	The thorax (bones, joints, ligaments, movements, muscles, and internal structures)

W10	M11	**Test 2**
W10	M15	The hip and thigh (bones, joints, ligaments, movements, and muscles)
W11	M18	The knee (bones, joints, ligaments, movements, and muscles)
W11	M22	The lower leg, ankle, and foot (bones, joints, ligaments, movements, and muscles)
W12	M25	Nervous and blood vessels of the lower extremity
W12	M29	**No class due to Good Friday**
W13	A1	Cardiovascular system
W13	A5	Respiratory system
W14	A8	Digestive system
W14	A12	Urinary system
W15	A15	Reproductive system

Week	Lab
W1	Lab 1: Enacting anatomical terminology (recognizing and performing joint motions)
W2	Lab 2: Surface anatomy (inspection)
W3	Lab 3: Tissues
W4	Lab 4: Bone review (3D models, video game)
W5	Lab 5: Bony markings (overview, specimen examination)
W6	Lab 6: Palpating bony markings, anthropometry
W7	**No Lab – Fall Break**
W8	Lab 6: **Bell ringer test 1** (skeletal system), then anthropometry (continued)
W9	Lab 7: Superficial muscle review (3d models, computer models, videogame)
W10	Lab 8: Palpating superficial muscles
W11	Lab 10: Deep muscle review (dissection videos, computer models)
W12	Lab 9: Supportive muscle review (dissection videos, computer models)
W13	Lab 10: **Bell ringer test 2** (muscular system), then cranial nerves
W14	Lab 11: The brain

STUDENT RESPONSIBILITIES:
- Students are required to come to class prepared
- Regular attendance is critical to succeed in this class. Students should contact the instructor in advance if they are unable to attend.
- **Any student who misses 8 or more classes or 3 or more labs without approval will be unable to sit for subsequent assessments.**
- If a student misses tests for medical reasons, a doctor's note must be provided
- Late quizzes or worksheets will be deducted 10% per day submitted past the deadline
- Assignment details will be provided on D2L

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at https://www.nwpolytech.ca/about/administration/policies/index.html.

**Note: all Academic and Administrative policies are available on the same page.

POLICY ON RECORDING TEACHING ACTIVITIES:

Students may not record classroom activities (such as lectures, group activities, group presentations delivered in class, etc.) without the advance written permission of the instructor. This policy is set to protect the privacy and reputation of students, to uphold the copyrights of the instructor and other content creators, and to facilitate free and open discussion of ideas. The classroom is meant to be a psychologically safe environment, where students are free to explore and think through new and controversial ideas without fear of public repercussions. Recording lectures can undermine this goal. If permission to record an activity is granted, the recorded material can only be used for the student's own private use and is not to be posted online or otherwise distributed. In the case of student presentations, the recording student must show proof that the presenting student(s) have agreed to be recorded before the instructor grants permission.

COPYRIGHT NOTIFICATION:

Any course material created by your instructor is his intellectual property and is provided to you based upon your registration for this class. As such, the material is for your private use only. It is not to be distributed, publicly exhibited, or sold without the permission of the instructor. Third party materials (such as assigned readings) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

INSTRUCTOR'S POLICY ON THE USE OF GENERATIVE AI FOR COURSEWORK:

Generative AI is a powerful tool that can help you perform better as a student and kinesiologist. When misused, however, it becomes a crutch that undermines your competence, interferes with your learning, and puts you at a legal and professional risk. This includes the real and immediate risk of accusations of academic misconduct. I want you to use AI responsibly both in this class and in your broader life. For transparency, here are the policies I am setting and enforcing in this course:

- **AI use will not be permitted during closed-book exams.** Consulting AI in this context will be considered equivalent to asking a neighboring student for the answer or copying their work, both of which are academic misconduct.

- **AI should also not be used for reflection activities.** If I am asking you to describe your first-person experience of something, it would be inappropriate for you to ask a friend to describe their experience and then pass it off as your own. It also makes no sense to ask AI to describe a first-person experience, since current AI does not have sentience (meaning it has no first-person experiences). Therefore, anything it tells you in this regard is plausible sounding nonsense.

- **When working on a written project or essay, generative AI can be used for cited idea generation.** That means it can give you ideas, but it is your responsibility to identify the source of the ideas, as well as their veracity, by doing your own independent research and verification. **Without exception, the source of the ideas must be cited in assignments**. Note that some generative AI programs will provide false references when prompted. Not citing references in an academic assignment is a form of plagiarism. Citing incorrect references is sloppy academic work, which reflects badly on you and will undermine your grade. **When AI cannot identify the source of the idea, and your own research process has not revealed a source, minimally you must reference "personal communication" with the specific generative AI model.** However, an assignment with a predominance of this reference will be seen as inadequately researched.

- Uncritically copying and pasting the outputs of AI demonstrates a lack of independent thought and fails to show your mastery of the course content. **I expect you to take any ideas generated by AI and rewrite them in your own words (in addition to citing them).** To ensure that you are not mindlessly pasting the outputs of AI into your assignments, **I will be screening them using GPT zero AI detection software (https://gptzero.me/). If the results show a probability of 50% or greater that AI completely generated the text, I will assume that is indeed the case, and you will be graded accordingly.** It is your responsibility to check your assignments using this tool prior to submitting them.

- AI has a real tendency to overedit. **If you want to use AI to edit your wording, you should have the AI model suggest edits and give a rationale for each suggestion, as opposed to letting the AI completely rewrite the text for you.** This will avoid frustration when trying to ensure that your assignment passes the GPT zero check.