

SCHOOL OF KINESIOLOGY, UNIVERSITY OF BRITISH COLUMBIA

**Kinesiology (KIN) 390
Human Functional Musculoskeletal Anatomy
(Term 2 – 2018/2019)**

Instructor: Dr. J. Timothy Inglis

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Teaching Assistant: Brian Hayes (brian.hayes@ubc.ca)

Location and Time:

Lectures: Tues./Thurs. 9:30 -11:00am, Room OSBO 203.

Laboratory: Monday, 10:00 am – 12:00, 12:00 - 2:00. Room OSBO 203

Prerequisites: KIN 190 or equivalent, 3rd year standing and/or permission of the instructor.

Description:

This Lecture/Laboratory-based course will provide students with detailed knowledge of the body's musculoskeletal structures underlying human movement. Students will also be provided with detailed knowledge of the neural innervations to these musculoskeletal structures in order to comprehensively understand the organization of movement control. Emphasis will be placed on appendicular and axial functional anatomy, with practical skills in surface anatomy and physical and neurological examination. Attention will also be given to the practical application of human anatomy as it pertains to clinical, athletic, or everyday situations.

Learning Objectives/Outcomes:

- Gain a detailed knowledge of bony landmarks and surface anatomical landmarks.
- Understand Joint structure and function – including familiarity with the detail of ligaments, e.g. specific ligaments that stabilize appendicular joints.
- Comprehend and be knowledgeable in all the Muscle attachments (proximal and distal), neural innervations, and muscle actions.
- Be able to explain the functional roles of the prime movers of simple and complex limb movements.
- Be able to think functionally about all of the synergists and antagonists of these actions.
- Gain detailed knowledge of the Special areas (axilla, cubital fossa, carpal tunnel, femoral triangle, popliteal fossa).

Required Textbook:

1. Essential Clinical Anatomy (5th edition) Keith L. Moore, Anne M. R. Agur, Arthur F. Dally. (2013). Wolters Kluwer/Lippincott Williams & Wilkins.

NOTE: 4th edition of the above book is very similar and just as good. Examinable content, however, will come from the pages listed for the 5th edition (see below).

Recommended Textbooks

1. Hollinshead's Functional Anatomy of the Limbs and Back, 9th edition. David B. Jenkins., Saunders Publishing. 2009.
2. Grant's Atlas of Anatomy (13th edition). Anne M.R. Agur, Arthur R. Dally (2013). Wolters Kluwer/Lippincott Williams & Wilkins.
3. "OR" *any* and *many* standard Atlas of Anatomy.

Course Evaluation

Midterm #1: evaluation: 20% (Feb. 14th, 2019). Written during class time.

Practical Laboratory Exam: 40% (April 1st, 2019) NOTE: written during your laboratory time up in Osborne lab space.

Final Written Exam: 40% NOTE: Date and time of the final exam will be set by the registrar during final exam period in April, April 8th – 26th

NOTE: Classes Cancelled

Feb. 18-22nd - NO Classes (READING BREAK).

April 19th (Good Friday – University Closed).

April 22nd (Easter Monday – University Closed).

Timetable - Lectures

1. Jan. 1 Introduction/Overview of the Course/Skull.
2. Jan. 8/10 Head/Neck/Vertebral Column I.
3. Jan. 15/17 Vertebral Column II & Thorax.
4. Jan. 22/24 Shoulder/Upper Arm/Elbow.
5. Jan. 29/31 Elbow/Forearm.
6. Feb. 5/7/12 Wrist/Hand, catch-up and summary.
7. Feb. 14th Midterm #1 – cumulative upper body - 20%.
8. Feb. 26/28th Pelvis/Hip
9. March 5/7 Hip/Upper leg.
10. March 12/14th Upper leg/Knee.
11. March 19/21st Lower leg/Ankle.
12. March 26/28th Foot.
13. April 2/4th Catch-up/Summary & review

Laboratories:

There are two laboratory sections in KIN 390 this year:

- 1) *Monday 10-12 (L1A)*
- 2) *Monday 12-2. (L1B)*

Laboratories are not compulsory (attendance is not taken), but you must go to the lab section you have been assigned to unless granted special permission in advance of the laboratory by the course instructor. Laboratory content can be covered outside of the assigned laboratory timeslots, but the Teaching assistant will be present in the assigned laboratory windows listed below.

Timetable – Laboratories

1. Jan. 7th, Skull, Head & Neck.
2. Jan. 14th, Back/Thorax.
3. Jan. 21nd, Thorax/Shoulder.
4. Jan. 28th, Elbow and Forearm, Wrist
5. Feb. 4th, Hand.
6. Feb. 11th, Review – Human anatomy lab visit #1
7. Feb. 25th Pelvis/Hip.
8. March 4th, Hip/Upper leg.
9. March 11th, Upper leg and Knee.
10. March 18th, Lower leg and Ankle/Foot
11. March 25th, Review – Human anatomy lab visit #2.
12. April 1st, Practical Laboratory Examination