



HK*3501 Human Anatomy: Prosection

Fall 2021

Section(s): C01

Department of Human Health and Nutritional Sciences

Credit Weight: 0.75

Version 1.00 - September 07, 2021

1 Course Details

1.1 Calendar Description

First part of the two-semester course HK*3501/2. A two-semester lecture and laboratory course in human anatomy which includes a detailed study of the skeleton, upper and lower limbs, thorax, abdomen, pelvis, perineum, head, neck and central nervous system. Labs involve observation of anatomical details using prosections and dissected specimens. This is a two-semester course offered over consecutive semesters. When you select it you must select HK*3501 in the Fall semester and HK*3502 in the Winter semester. A grade will not be assigned to HK*3501 until HK*3502 has been completed.

Co-Requisites: HK*3810 OR BIOM*3200

Restrictions: HK*3401, HK*3402 Registration in the BSC. Major in Human Kinetics or Bio-Medical Science. Instructor consent required.

1.2 Course Description

This is a laboratory-based course that provides students with a regional study of the back, upper limb, thorax and abdomen. A detailed understanding of the relevant osteology and muscles present in these anatomical regions provides the framework for which the pathways and relationships of blood vessels and nerves are examined. Students will learn to progressively layer anatomical structures, from deep to superficial, and/or follow their pathways from proximal to distal. It is with this fundamental understanding of anatomical structures and their relationships, that students will consider applications and/or potential effects of perturbations of anatomy.

1.3 Timetable

Lectures	Monday, Wednesday, Friday:	Online; synchronous. Lecture slides (Powerpoint with voice-over) will be posted on CourseLink.
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8:30 – 9:20

See Calendar of Events in 'Organizational Content' on CourseLink for HK*3501.

Laboratories Tuesday 10:00 - 10:50

Tuesday 11:30 - 12:20 All laboratory sessions will be on campus (i.e., face-to-face), in the Human Anatomy Laboratory - BIOM 1609.
Tuesday 1:00 - 1:50

Tuesday 2:30 - 3:20

Wednesday 10:00 -
10:50

Wednesday 11:30 -
12:20

Wednesday 1:00 - 1:50

Wednesday 2:30 - 3:20

Thursday 10:00 - 10:50

Thursday 11:30 - 12:20

Thursday 1:00 - 1:50

Thursday 2:30 - 3:20

1.4 Final Exam

Exam time and location is subject to change. Please see WebAdvisor for the latest information.

2 Instructional Support

2.1 Instructional Support Team

Instructor:	Lorraine Jadeski
Email:	ljadeski@uoguelph.ca
Telephone:	+1-519-824-4120 x53740
Office:	OVCE 2617
Office Hours:	Friday 8:30 - 9:30 (or by appointment) via zoom.

2.2 Teaching Assistants

Teaching Assistant (GTA):	Emma Hubbard
Email:	ehubbard@uoguelph.ca
Teaching Assistant (GTA):	Julia Keating
Email:	jkeati02@uoguelph.ca
Teaching Assistant (GTA):	Jamie Martin
Email:	jmarti35@uoguelph.ca
Teaching Assistant (GTA):	Isabella Wylie
Email:	iwylie@uoguelph.ca

3 Learning Resources

3.1 Required Resources

Essential Clinical Anatomy (Textbook)

Essential Clinical Anatomy, 6th Edition, Anne M. Agur and Arthur F. Dalley

Courselink (Website)

<https://courselink.uoguelph.ca>

This course will make use of the University of Guelph's course website on D2L (via Courselink). Consequently, you are responsible for all information posted on the Courselink page for HK*3501.

3.2 Recommended Resources

Mini Skeleton (Other)

Students registered in HK*3501 have the opportunity to purchase mini-skeletons (34 inches high) at a special reduced price using a coupon code provided by the anatomical model company. Details/instructions will be provided to students via email.

AN Anatomy Atlas (Other)

Atlases available in Bookstore:

- Grant's Atlas of Anatomy, 15th Edition, Anne M. Agur and Arthur F. Dalley
- Atlas of Anatomy, 4th Edition, Gilroy, MacPherson and Ross

- Color Atlas of Anatomy: A Photographic Study of the Human Body, 8th Edition, Rohen, Yakochi and Litjen-Drecoll

3.3 Additional Resources

Undergraduate Calendar (Website)

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/>

Is the source of information about the University of Guelph's procedures, policies and regulations, which apply to undergraduate programs.

3.4 Note

Students registered in University of Guelph Programs have access to images available from Thieme Medical Publishers, Inc. © Copyright 2019. Please read carefully, and adhere to the terms of use set by the publisher.

<http://www.thiemeteachingassistant.com/>

off campus access:

<https://subzero.lib.uoguelph.ca/login?URL=http://www.thiemeteachingassistant.com/>

<http://www.thiemeteachingassistant.com.subzero.lib.uoguelph.ca/Terms%20of%20Use>

4 Learning Outcomes

4.1 Course Learning Outcomes

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

1. Identify and describe the relationships of major anatomical structures present in the back, spinal cord, upper limb, thorax and abdomen.
2. Identify the proximal and distal attachments of muscles present in the back, upper limb, thorax and abdomen; infer the action(s) of muscles based on their osteological attachments.
3. Explain the coordinated activity of muscles in producing movements of the body.
4. Understand and describe the pathway of nerves, from their points of origin as rami of spinal nerves, to their distribution sites; apply your knowledge of the origin and pathway of nerves to determine which structures they innervate.
5. Understand and describe the pathway of blood vessels and nerves, from their points of origin from the heart and spinal cord, respectively, to their distal branches.

6. Provide schematic representations of structures present in the back, upper limb, thorax and abdomen, and the relationships of these structures.
 7. Use your knowledge of: a) structures present in the back, upper limb, thorax and abdomen, b) their relationships, and c) the pathway of nerves and blood vessels, to consider applications of anatomy, and assess the impact of perturbations of anatomy.
 8. Demonstrate oral competency, with an emphasis on providing salient information in a peer-teaching exercise.
 9. Work actively, in a small team-based learning group; work together in a respectful and collaborative manner.
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5 Teaching and Learning Activities

5.1 Course Schedule

Laboratory Week	Laboratory Topic	Suggested Textbook Readings
		Moore's Essential Clinical Anatomy, 6th Edition
Laboratory 1	Back 1	Terminology: 3 – 7
September 14 - 16, 2021	Vertebral Column and Spinal Cord: Vertebral Canal; Spinal Cord and Meninges	Vertebral Column: 46 - 54; 60 -65 Spinal Cord and Meninges: 29 - 31; 69 - 75 Clinical Box: 75 Lumbar Spinal Puncture, Epidural Anesthesia
Laboratory 2	Back 2	
September 21 - 23, 2021	Superficial, Intermediate and Deep Back Scapular Region	Muscles of Back: 76 - 85 Osteology of Pectoral Girdle: 92 - 96

Posterior Axio-appendicular and
Scapulohumeral Muscles: 113 - 117

Laboratory 3 **Upper Limb 1**

Osteology: 92 - 98

September 28 - 30, Pectoral Region
2021

Anterior Axio-appendicular Muscles:
112 - 113

Axilla: Walls, BP, Axillary
Artery

Axillary Region and Brachial Plexus: 117
- 129

Upper Limb 2

Osteology: 92 - 98

Laboratory 4 Arm, Cubital Fossa and
Forearm

Arm: 130 - 134

October 5 - 7, 2021

Cubital Fossa: 136

Anterior Forearm: 136 - 140

Upper Limb 3

Hand: 150 - 157

Laboratory 5 Hand

October 13, 14 and
19, 2021

Laboratory 6 **Review Laboratory**

October 20, 21 and
26, 2021

Test 1

Back and Spinal Cord; Upper Limb

**Written: Thursday October 28, 2021 (6:00
pm); online via Respondus**

**Practical: Friday October 29,
2021 (during class time); online via
Respondus**

Thorax 1

Laboratory 7

November 2 - 4,
2021

Thoracic Wall and Apertures: 184 - 189

Movements of Thoracic Wall: 189 - 190

Muscles, Nerves and Vasculature of
Thoracic Wall: 196 - 200

Laboratory 8

Thorax 2

Mediastinum: 217 - 218

November 9 - 11,
2021

Middle Mediastinum: 218 - 233

Superior Mediastinum: 239 - 244

Posterior Mediastinum: 244 - 248

Laboratory 9 **Abdomen 1**

November 16 -18,
2021

Peritoneum and Peritoneal Cavity: 272 -
276

Abdominal Viscera and Blood Supply:
278 - 294

Laboratory 10 **Abdomen 2**

November 23,- 25
2021

Anterolateral Abdominal Wall: 255 -
258

Inguinal Region: 263 - 271

Laboratory 11 **Review Laboratory**

November 30 and
December 1 - 2,
2021

Test 2

Thorax and Abdomen

Written: TBA; online via Respondus

Practical: TBA; online via Respondus

6 Assessments

6.1 Methods of Assessment

ASSESSMENT:	Value	Date	Learning Outcomes	Course Activity
	(% of Final Grade)			
Written Test 1	12.5	Thursday October 28, 2021 Online via Respondus	1 - 7	Back, Spinal Cord, Upper Limb: Labs 1 – 6 and associated class slides
Practical Test 1	12.5	Friday October 29, 2021 During Class Time Online via Respondus		Back, Spinal Cord, Upper Limb: Labs 1 – 6 and associated class slides
Written Test 2	12.5	Date and Time: TBA Online via Respondus	1 - 7	Thorax and Abdomen: Labs 7 – 10 and associated class slides

Practical Test 2	12.5	Friday December 3, 2021	Thorax and Abdomen:
		During Class Time	
		Online via Respondus	Labs 7 – 10 and associated class slides
Quizzes	20%	Monday September 20, 2021	Labs 1 – 10 and associated class slides
		Monday October 4, 2021	1 – 7, 9
		Friday November 12, 2021	
		Friday November 26, 2021	
		Online via Respondus	
		5% each	
Group Assignment 1 - Visualize Anatomy	5%	Students prepare a schematic representation of the posterior thoraco-appendicular and scapulohumeral muscles (draw or model using skeleton and clay)	Labs 1 - 2 and associated class slides
		Monday September 27, 2021: Individual assignments due (12:00 noon); completion mark only	

Friday October 1, 2021 - Group assignments due (12:00 noon): 5%

Submit digital image(s) via Dropbox

Group Assignment 2A and 2B - Interpret Anatomy

10%

Students provide and interpret a schematic representation of the brachial plexus

1 - 7, 9
Labs 3 - 4 and associated class slides

Friday October 8, 2021

Online quiz (during class time): 5%

Group assignment (i.e., schematic representation of the brachial plexus) due (12:00 noon): 5%

Submit digital image via Dropbox

Group Assignment 3 - Communicate Anatomy

15%

Students work in small groups to prepare a teaching-based presentation (slide-based with voice-over). The topic to be addressed: the axilla, a regional approach.

8 - 9
Labs 3 - 4 and associated class slides

Friday October 15, 2021: Draft 1 (due at noon); 5%

Friday November 5, 2021: Final
Version (due at noon):10%

7 Course Statements

7.1 Grading

If you are absent from classes during the semester, you will be expected to make up missed lecture and laboratory material on your own.

Use of Respondus LockDown Browser and Monitor for HK*3501: This course will be using Respondus Lockdown software, with microphone and web cam enabled, for online assessments. Your instructor is aware that some students have expressed concerns about the use of this exam invigilation software. The University Administration has approved the use of Respondus Lockdown software and other online monitoring platforms that use artificial intelligence for remote invigilation. Your instructor is committed to an equitable and accessible assessment experience, please contact your instructor if you have concerns.

Respondus LockDown Browser is a locked browser for taking quizzes in CourseLink. It will be required to take the written and practical components of the midterm and final exam for HK*3501. Respondus prevents users from printing and copying; using other operating software; using search engines (e.g., going to another URL); communicating via instant messaging; and it blocks non-web-related software (e.g., Adobe PDF, Microsoft Word).

Respondus Monitor is a companion application for LockDown Browser that uses webcam and video technology to ensure academic integrity during online exams. The software captures video during the exam and allows the instructor to review the video once the exam is completed.

In order to use Respondus LockDown Browser and Monitor, you must meet the following technical requirements:

- Operating Systems: Windows 10, 8, 7; Mac OS X 10.10 or higher.
- Memory: Windows 2 GB RAM; Mac 512 MB RAM.
- For Mac users: Safari must function properly on the computer.
- Mac users must have Adobe Flash Player installed to Safari, even if a different browser is normally used.
- Functioning webcam and microphone. The webcam and microphone can be built into your computer or can be the type that plugs in with a USB cable. (You will be required to do an environment scan of your room, so please ensure you can move your computer, laptop or webcam for this scan.)
- A broadband Internet connection. It is recommended that you access the Internet via a wired connection.

If you have any concerns about meeting system requirements, contact CourseLink Support. They will work with you to find alternative solutions or make alternative arrangements.

8 Department of Human Health and Nutritional Sciences Statements

8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. [B.Sc. Academic Advising](#) or [Program Counsellors](#)

8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>
- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours

of operations can be found at: <http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help> and <http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help>

8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. <http://www.selfregulationskills.ca/>

8.4 Personal information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) <http://www.e-laws.gov.on.ca/index.html>. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes.

For more information regarding the Collection, Use and Disclosure of Personal Information policies please see the Undergraduate Calendar. (<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml>)

8.5 Course Offering Information Disclaimer

Please note that course delivery format (face-to-face vs online) is subject to change up to the first-class day depending on requirements placed on the University and its employees by public health bodies, and local, provincial and federal governments. Any changes to course format prior to the first class will be posted on WebAdvisor/Student Planning as they become available.

9 University Statements

9.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

9.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions

<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

9.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is

required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

For Guelph students, information can be found on the SAS website
<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website
<https://www.ridgetownc.com/services/accessibilityservices.cfm>

9.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community—faculty, staff, and students—to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

9.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma

programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

9.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

9.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

9.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- <https://news.uoguelph.ca/return-to-campus/how-u-of-g-is-preparing-for-your-safe-return/>
- <https://news.uoguelph.ca/return-to-campus/spaces/#ClassroomSpaces>

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.
