



HK*3501 Human Anatomy: Prosection

Fall 2019

Section(s): C01

Department of Human Health and Nutritional Sciences

Credit Weight: 0.75

Version 1.00 - August 30, 2019

1 Course Details

1.1 Calendar Description

First part of the two-semester course HK*3501/2. Refer to HK*3501/2 for course description.

Co-Requisites:

HK*3810

Restrictions:

HK*3401/2. Registration in the B.Sc. 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.

HK*3401/3501 Laboratory Fee: \$60.00; please bring exact cash or cheque (made out to University of Guelph) to your FIRST laboratory period (week of September 9, 2019).

1.3 Timetable

Lectures Monday, Wednesday, Friday: 8:30 – 9:20 ROZH 101

Laboratories HK*3401 Tuesday 10:00 – 12:50 OVC 1610

	Tuesday	2:30 – 5:20	OVC 1610
	Thursday	10:00 – 12:50	OVC 1610
	Thursday	2:30 – 5:20	OVC 1610
HK*3501	Wednesday	11:30 – 1:20	OVC 1610
	Wednesday	2:30 – 4:20	OVC 1610

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: Wednesday 1:30 - 2:30, or by appointment

2.2 Teaching Assistants

Teaching Assistant: Christian Cheung
Email: ccheun05@uoguelph.ca
Office Hours: Office hours: by appointment

Teaching Assistant: Kelsey Danielli
Email: daniellk@uoguelph.ca
Office Hours: Office hours: by appointment

Teaching Assistant: Amber Hutchinson
Email: hutchina@uoguelph.ca
Office Hours: Office hours: by appointment

Teaching Assistant: Aleah Kirsh
Email: akirsh@uoguelph.ca
Office Hours: Office hours: by appointment

Teaching Assistant: Rewati Prakash
Email: rprakash@uoguelph.ca
Office Hours: Office hours: by appointment

3 Learning Resources

3.1 Required Resources

Essential Clinical Anatomy (Textbook)

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

Grant's Dissector (Textbook)

Grant's Dissector, 16th Edition, Allen J. Detton

AN Anatomy Atlas (Other)

Atlases available in Bookstore:

- Grant's Atlas of Anatomy, 14th Edition, Anne M. Agur and Arthur F. Dalley
- Atlas of Anatomy, 3rd Edition, Gilroy, MacPherson and Ross
- Color Atlas of Anatomy: A Photographic Study of the Human Body, 8th Edition, Rohen, Yakochi and Litjen-Drecoll

Colours (Equipment)

Bring colours (e.g., markers, pencil crayons or Crayola Twistables) to class for drawings.

Lab Coat (Equipment)

You are required to wear a white laboratory coat in all laboratory sessions (available in bookstore), and wear clothing that covers your legs and feet: long pants and suitable shoes (closed-toed/ensure whole foot is covered) are required. Please be aware that you are not permitted to enter the laboratory if you are not suitably attired.

Gloves (Equipment)

Gloves (nitrile; non-latex) and dissection instruments are provided in the laboratory.

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*3401/3501.

3.2 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.

3.3 Note

Your course instructor (LCJ) highly recommends that you use Moore's Essential Clinical Anatomy, and at least one anatomy atlas as a reference tools for HK*3401/3501. In addition, you will require access to Grant's Dissector, 16th edition. You may choose to share a copy of Grant's Dissector with your laboratory group, group member/friend, or have access to your own copy. Older editions of any of the recommended atlases of anatomy are suitable for use in the course.

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<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, from their points of origin from the heart, 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 10 - 12, 2019	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 17 - 19, 2019	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 24 - 26, 2019	Pectoral Region Axilla: Walls, BP, Axillary Artery	Anterior Axio-appendicular Muscles: 112 - 113 Axillary Region and Brachial Plexus: 117 - 129
	Upper Limb 2	Osteology: 92 - 98
Laboratory 4	Arm, Cubital Fossa and	Arm: 130 - 134

<p>October 1 - 3, 2019</p>	<p>Forearm</p>	<p>Cubital Fossa: 136</p>
		<p>Anterior Forearm: 136 - 140</p>
	<p>Group Demonstrations for:</p>	
	<p>Back and Spinal Cord</p>	
	<p>Upper Limb 3</p>	<p>Hand: 150 - 157</p>
<p>Laboratory 5 October 8 - 10, 2019</p>	<p>Hand and Posterior Forearm</p>	<p>Posterior Forearm: 140 - 143</p>
<p>Laboratory 6</p>	<p>Review Laboratory</p>	
<p>October 17 and 22 - 23, 2019</p>		<p>Test 1</p>
		<p>Back and Spinal Cord; Upper Limb</p>
	<p>Group Demonstrations for:</p>	<p>Practical: Thursday October 24, 2019; OVC 1610</p>
	<p>Upper Limb</p>	<p>Written: Saturday November 2, 2019; ROZH 101</p>
	<p>Thorax 1</p>	<p>Thoracic Wall and Apertures: 184 - 189</p>

Laboratory 7

Movements of Thoracic Wall: 189 - 190

October 29 - 31,
2019

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

Laboratory 8 **Thorax 2**

Mediastinum: 217 - 218

November 5 - 7,
2019

Middle Mediastinum: 218 - 233

Superior Mediastinum: 239 - 244

Posterior Mediastinum: 244 - 248

Laboratory 9 **Abdomen 1**

Peritoneum and Peritoneal Cavity: 272 -
276

November 12 -
14, 2019

Abdominal Viscera and Blood Supply:
278 - 294

Laboratory 10 **Abdomen 2**

Anterolateral Abdominal Wall: 255 - 258

November 19 -
21, 2019

Inguinal Region: 263 - 271

Laboratory 11 **Review Laboratory**

November 26 -
28, 2019

Test 2

Thorax and Abdomen

Group Demonstrations for: Written: Thursday December 5, 2019

Thorax and Abdomen Practical: Friday December 6, 2019

6 Assessments

6.1 Methods of Assessment

ASSESSMENT:	Value	Date	Learning Outcome	Course Activity
	(% of Final Grade)		s	
Written Test 1	22.5%	Saturday November 2, 2019 9:30 - 11:30 AM Location ROZH 101	1 - 7	Back, Spinal Cord, Upper Limb: Labs 1 – 6 and Associated Lectures
Practical Test 1	22.5%	Thursday October 24, 2019 OVC 1610		Back, Spinal Cord, Upper Limb:

			Labs 1 – 6 and Associated Lectures
Written Test 2	17.5%	Thursday December 5, 2019	Thorax and Abdomen:
		7:00 - 9:00 PM	1 - 7
		Location TBA	Labs 7 – 11 and Associated Lectures
Practical Test 2	17.5%	Friday December 6, 2019	Thorax and Abdomen:
		OVC 1610	Labs 7 – 11 and Associated Lectures
Laboratory Progress	5%	Evaluated Weekly by Teaching Assistants	Labs 1 – 11
			1 – 7, 9
Group Demonstration A:	10%	Students, working in pairs, perform one laboratory demonstration in the fall semester (i.e., Back/Spinal Cord, Upper Limb or Thorax/Abdomen)	Students Perform 1 of 3 possible Laboratory Demonstrations:
Peer Teaching Exercise			Labs 1 – 2 (Back/Sp. C)

			Labs 3 – 5 (UL)
			Labs 7 – 10 (Th./Abd/)
Group Demonstration B:	5%	On Group Demonstration Days, entire laboratory group participates in oral quizzes (administered by TAs and/or instructor)	Students Participate in all Team Learning Exercises:
Team Learning Exercise			Labs 1 – 2 (Back/Sp. C)
		8 - 9	Labs 3 – 5 (UL)
			Labs 7 – 10 (Th./Abd)

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.

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/>

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>

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.

More information can be found on the SAS website

<https://www.uoguelph.ca/sas>

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>
