

Anatomy and Cell Biology
2200B Systemic Anatomy of the Human Body

Course outline for Summer 2022



Although this academic year might be different, Western University is committed to a **thriving campus**. We encourage you to check out the [Digital Student Experience](#) website to manage your academics and well-being. Additionally, the following link provides available resources to support students on and off campus: <https://www.uwo.ca/health/>.

1. Technical Requirements:



Stable internet connection



Laptop or computer



Working microphone
(Suggested)



Working webcam

2. Course Overview and Important Dates:



Delivery Mode	Dates	Time
Online	M/T/Th/F	

*Details about design and delivery of the course are listed below in Section 4

Classes Start	Classes End	Exam Period
June 20	July 29	Aug 1 - 4

* July 18, 2022: Last day to drop a second-term half course without penalty

3. Contact Information



Course Coordinator	Contact Information
Dr. Michele Barbeau	mbarbeau@uwo.ca

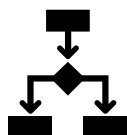
Instructors	Contact Information
Dr. Stephen Renaud	Stephen.Renaud@schulich.uwo.ca
Dr. Tyler Beveridge	tbeverid@uwo.ca

4. Course Description and Design

An introduction to the gross anatomical structures and functional connections of the core systems in the human body, including the musculoskeletal, circulatory, respiratory, gastrointestinal, urinary, and reproductive systems. Demonstrations reinforce and extend the lectures.

Antirequisite(s): [Anatomy and Cell Biology 2221](#), [Health Sciences 2300A/B](#), [Health Sciences 2330A/B](#), [Health Sciences 3300A/B](#), [Kinesiology 2222A/B](#), [Kinesiology 3222A/B](#), the former [Anatomy and Cell Biology 3319](#).

Extra Information: 4 lecture hours, 2 demonstration hour. This is not a laboratory course. Senate regulations regarding the student's responsibility regarding requisites: Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.



Mode	Dates	Time	Frequency
Virtual asynchronous: Lec	M/T/Th/F	10:30-11:20am	weekly
Virtual synchronous: Lab	M/W	10:30/1230/630	weekly
Virtual synchronous: Q&A	F	12:00 pm	weekly

Closed captioning will be provided through Echo360 on video recordings

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

5. Learning Outcomes



Upon successful completion of this course, students will be able to:

- Identify the major structures and general function of the body systems.
- Explain the functional mechanisms behind the anatomy and each part's role in maintaining homeostasis.
- Apply your understanding of the anatomy to predict and/or rationalize symptoms of provided clinical cases.

6. Course Content and Schedule

Lectures:

Monday, Tuesday, Thursday and Friday 10:30-11:20 am; Lectures will either be broadcast live using Echo 360 virtual classroom software or prerecorded. Attendance during live times is not mandatory as all lectures are recorded for future use.

Laboratory Demonstrations:

Labs are held online. Students are expected to familiarize themselves with the Lab Outlines prior to viewing the Lab Videos. Material covered in the lab outlines may be tested on the Lab Assessment exams. Teaching Assistants will prepare summary material based on the lab outlines and lab videos. These summaries will be available for review prior to the labs zoom sessions.

Lab Zoom

Live, bi-weekly synchronous small group sessions will be offered with the Teaching Assistants every Monday and Wednesday using Zoom. They are tentatively set for 1 hr. timeslots at 1030am, 1230pm or 630pm. These sessions will include activities, sample cases as well as Q&A time. Students can select the time slot that fits their schedule for the term through Owl. A brief summary of these sessions will be recorded for students unable to attend the live session.

Weekly Q&A

A live Q&A session with Instructor(s) will be held via zoom each Friday at 12:00 pm. A meeting invite will be provided. These are “drop-in” sessions intended as Q&A about course content or administration. They are not mandatory or recorded.

Laboratory videos have been created using human cadaveric material. This course is privileged to be able to provide human cadaveric specimens for student learning. These specimens have been donated by individuals through Western’s Body Bequeathal Program and hence, we expect the utmost of respect for them by our students. **Sharing or downloading of this material for use outside of this course is strictly prohibited.** Several resources have been suggested to allow students to review cadaveric specimen images outside of the lab.

Lab Demonstrations

Term 1 Labs		
Lab 1	June 22	Terminology and Overview of Body Systems
Lab 2	June 27	Upper Limb – Shoulder & Arm
Lab 3	June 29	Upper Limb – Forearm & Hand
Lab 4	July 4	Lower Limb - Thigh
Lab 5	July 6	Lower Limb - Leg
Lab 6	July 11	Heart and Systemic Circulation
	July 13	No Lab – Midterm week
Term 2 Labs		
Lab 7	July 18	Respiratory System
Lab 8	July 20	Upper Digestive Tract
Lab 9	July 25	Lower Digestive Tract and Accessory Organs
Lab 10	July 27	Retroperitoneum



Lectures

Dates	Term 1 Topics	Lecturer
Monday June 20	L1 – Systemic Anatomy Overview	Barbeau
Tues June 21	L2 - Nervous System Part I – Somatic	Barbeau
Thurs June 23	L3 - Shoulder	Barbeau
Fri June 24	L4 - Arm	Barbeau
Mon June 27	L5 – Forearm	Barbeau
Tues June 28	L6 – Hand	Barbeau
WED June 29	L7 - Anterior & Medial Thigh	Barbeau
Mon July 4	L8 - Posterior Thigh & Gluteal	Barbeau
Tues July 5	L9 – Leg	Barbeau
Thurs July 7	L10 - Nervous System Part II - Autonomic	Barbeau
Fri July 8	L11 – Heart	Barbeau
Mon July 11	L12 – Coronary and Pulmonary Circulation	Barbeau
Tues July 12	L13 – Systemic Circulation	Barbeau
	End of Term 1	
Saturday July 16	Mid Term Exam Online 10am – 1230pm	
	Term 2 Topics	
Thurs July 14	L14 – Nasal Cavity, Pharynx & Larynx	Renaud
Friday July 15	L15 - Trachea, Bronchial Tree & Lungs	Renaud
Mon July 18**	L16 - Digestive System I	Renaud
Tues July 19	L17 - Digestive System II	Renaud
Thurs July 21	L18 - Digestive System III	Renaud
Fri July 22	L19 - Digestive System IV	Renaud
Mon July 25	L20 - Urinary System	Beveridge
Tues July 26	L21 – Introduction to Pelvic Anatomy	Beveridge
WED July 27	L22 - Male Pelvic Anatomy	Beveridge
Thurs July 28	L23 - Female Pelvic Anatomy	Beveridge
Fri July 29	L24 - Functional Anatomy & Physiological Reflexes	Beveridge

** July 18 Last day to drop a second term half course without academic penalty

7. Online Participation and Engagement



- Students are expected to participate and engage with content as much as possible
- Students can participate during live sessions
- Students can also participate by interacting in the forums with their peers and instructors

8. Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Component	Weight	Date
Term 1 Exam	25%	Sat July 16 10am – 1230 pm Online
Term 2 Exam	25%	TBD - Aug Exam Period
Lab Assessment (2)	20%	With Term Exams
Research Project	15%	Fri July 22
Lab Assignments (10)	10%	Bi-Weekly
Quizzes (6)	5%	Weekly

- All assignments and quizzes are due at 11:55 pm ET unless otherwise specified
- Virtual proctoring will not be used
- Written exams will be submitted to Turnitin (statement in policies below)
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days.

Written Exams: The written exams will be short answer and case study questions. These will be completed online and handed in through the “Assignment” tab on Owl and will be passed through Turnitin. It is expected that these exam will be completed using your course notes but the exam is to be completed on an **individual** basis. Please review the UWO policy on Scholastic Offences. If you are unable to write the scheduled exam, please see Section 14 the policy and procedures for “Absence from Course Commitments” and “Special Examinations”.



The **Lab Assessment** will be in a “bell-ringer” format. These will be given online with a time of approximately 1 min per question. The date for these assessments will be the same as the Terms exam dates. It is expected that this exam will be completed on an **individual** basis. Please review the UWO policy on Scholastic Offences. If you are unable to write the scheduled exam, please see the Section 14 for the policy and procedures for “Absence from Course Commitments” and “Special Examinations”.

Bi-Weekly Lab Assignments will be completed for each lab session and **submitted by 11:55pm (EST) either Tues or Thurs following each lab**. If you are unable to complete an Assignment, you will need to submit a Self Reported Absence, please see Section 14 on the policy and procedures for “Absence from Course Commitments” There are no make up assignments, instead, you will be granted an extension for submission. You are encouraged to communicate with your peers to discuss the content of the assignments however, your submitted assignments must be your own work. Failure to do so, may constitute a Scholastic Offence.

Weekly Quizzes will be completed online. Quizzes will cover the material presented that week in the lectures and the lab videos. You will receive access to quizzes on Owl and you will have 1 attempt and 30 minutes to complete each quiz of 10 questions. You cannot revisit any of the questions. The quizzes are **released at 8:30am on Fridays and must be completed by 11:55pm that day**. You are expected to complete these quizzes on an individual basis. **There are no make ups for the quizzes. The lowest mark will be dropped for everyone in lieu of make up quizzes. It is not necessary to report a single absence for a quiz. If you miss more than one quiz, you will need to use the self reported absence.**

Anatomy Research Project: Students will select a topic from a list of suggestions or students can request to study an alternative topic with instructor approval. These topics include

diseases/disorders with strong anatomical basis. Students will prepare a short presentation which is recorded in Zoom and submitted. Further details on the assignment will be provided separately. If you are unable to submit the assignment by the specified deadline, please see Section 14 for the policy and procedures for “Absence from Course Commitments”.

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Information about late or missed evaluations:

- Late assessments without illness self-reports will be subject to a late penalty 2%/day
- Late assessments with illness self-reports should be submitted within 24 hours of submission of the last illness self-report**
- A make-up exam will be offered typically 1 week following the originally scheduled exam. Reweighting of assessments is not possible.
- If a make-up exam is missed, the student will receive an INC and complete the task the next time the course is offered (Winter 2023).

9. Communication:



- Students should check the OWL site every 24 – 48 hours
- A weekly update will be provided on the OWL announcements
- Course administration questions should be directed to the course coordinator only.
- Course content questions should be directed to the instructor or teaching assistant who presented the material.
- Emails will be monitored daily; students will receive a response in 24 – 48 hours
- This course will use the OWL forum for discussions
- Students should post all course-related content on the discussion forum so that everyone can access answers to questions
- The discussion forums will be monitored daily by instructors or teaching assistants

10. Office Hours:



- Group office hours will be held remotely using Zoom on Fridays at 11 am
- Students who would like a one on one Zoom meeting can email for an appointment
- Exam review will be offered through a goggle doc sign-up sheet and conducted individually over Zoom.

11. Resources

All resources will be posted in OWL

Recommended textbook

Human Anatomy, Marieb, Mallatt and Wilheld; 9th edition (including a Brief Atlas of the Human body; 2nd Edition). Pearson/Cummins Pub. Co.2013. (ISBN-10: 0321822145 • ISBN-13: 9780321822147) (Previous editions also acceptable)

Any other anatomy text which covers neuroanatomy is also acceptable. Some suggestions:

- *Clinically Oriented Anatomy* by Moore, Dalley and Agur
- *Gray's Anatomy for Students* by Drake, Vogl and Mitchell
- *The Principles of Human Anatomy* by Tortora and Nielsen



Helpful websites:

[Anatomy TV](#)

[Blue Link Anatomy – University of Michigan Medical School](#)

[3D4Medical Complete Anatomy](#) (subscription required)

Also suggested (at Taylor Library 2 hour Reserve):

- *Color Atlas of Anatomy*, Rohen, Yokochi, Lütjen-Drecoll; 7th edition. Lippincott Williams & Wilkins 2011. (ISBN: 9781582558561).
- *Atlas of Clinical Gross Anatomy*, Moses, Nava, Banks, Petersen; 2nd edition. Elsevier Ltd. 2013. (ISBN: 978-0-323-07779-8).
- *Human Anatomy: Color atlas and text*. 2008, 5th edition. Gosling et al., Mosby-Wolfe, London (ISBN:9780723434511)

12. Professionalism & Privacy:

Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

Students are expected to follow online etiquette expectations provided on OWL

All course materials created by the instructor(s) are copyrighted and cannot be sold/shared

Recordings are not permitted (audio or video) without explicit permission

Permitted recordings are not to be distributed

Students will be expected to take an academic integrity pledge before some assessments

All recorded sessions will remain within the course site or unlisted if streamed

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13. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.



1. “Attend” the lectures on a regular schedule. It is not possible to view all of the lectures for the first time the week before the exam and expect success. Anatomy takes time to understand the relationships and functions of the structures. Give yourself lots of time to learn the material. If you find yourself more than 2 lectures “behind”, use this as a wake-up call to get caught up. Binge watching is for Netflix, not Anatomy lectures!
2. Follow weekly checklists created on OWL or create your own to help you stay on track.
3. Take notes as you go through the lesson material. Treat this course as you would a face-to-face course. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos
4. Read the textbook. After watching the lecture, you should follow up with textbook readings.
5. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support – “teach” each other to help you understand the material better. You will find it very helpful for your own learning if you can explain something to another person.
6. Draw it! If you can draw the anatomy, you will have an easier time understanding it.
7. Do not be afraid to ask questions! We have a knowledgeable, enthusiastic team assembled to help you succeed in this course. Take advantage of us! Post questions on the forum if you think others might have similar questions.
8. The Learning Development & Success Team at UWO (www.learning.uwo.ca) has many virtual services available to students and has prepared several documents to support online learning that might be of interest:
[Strategies for Successful Online Learning](#)
[Preparing for Online Exams](#)
[Maintaining Motivation Online](#)

14. Western Academic Policies and Statements

Absence from Course Commitments

[Policy on Academic Consideration for Student Absences](#)

In the interest of the health and safety of students and health care providers, you are no longer required to seek a medical note for absences this term. If you are unable to meet a course requirement due to illness you should use the [Illness Reporting Tool](#). This tool takes the place of the need to submit a medical note and the Self-Reported Absence System formally used by undergraduate students.

Accommodation for Religious Holidays

The policy on Accommodation for Religious Holidays can be viewed [here](#).

Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an

opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examinations dates. These dates as well as other important information about examinations and academic standing can be found [here](#).

Academic Offenses

“Scholastic offences are taken seriously, and students are directed [here](#) to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review [The policy on Accommodation for Students with Disabilities](#).

Correspondence Statement

The centrally administered **e-mail account** provided to students will be considered the individual’s official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).

Turnitin and other similarity review software

All assignments will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. Students will be able to view their results before the final submission. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and [Turnitin.com](#).

15. BMSUE Academic Policies and Statements

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. You must always ask permission to record another individual and you should never share or distribute recordings.

Rounding of Marks Statement

Across the Basic Medical Sciences Undergraduate Education programs, we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. **Final grades** on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for mark “bumping” will be denied.

SSC Funding

This course is supported by the Science Student Donation Fund. If you are a BSc or BMSc student registered in the Faculty of Science or Schulich School of Medicine and Dentistry, you pay the Science Student Donation Fee. This fee contributes to the Science Student Donation Fund, which is administered by the Science Students' Council (SSC). One or more grants from the Fund have allowed for the purchase of equipment integral to teaching this course. You may opt out of the Fee by the end of September of each academic year by completing the online form linked from the Faculty of Science's Academic Counselling site. For further information on the process of awarding grants from the Fund or how these grants have benefitted undergraduate education in this course, consult the chair of the department or email the Science Students' Council at ssc@uwo.ca.

16. Support Services

The following links provide information about support services at Western University.

[Academic Counselling \(Science and Basic Medical Sciences\)](#)

[Appeal Procedures](#)

[Registrarial Services](#)

[Student Development Services](#)

[Student Health Services](#)