

The Department of Anatomy and Cell Biology
ANATCELL 3309 Mammalian Histology

Course Syllabus for Fall 2024/Winter 2025



Western University is committed to a **thriving campus**; therefore, your health and wellness matter to us! The following link provides information about the resources available on and off campus to support students: <https://www.uwo.ca/health/> Your course coordinator can also **guide you** to resources and/or services should you need them.

1. Technical Requirements:



Stable internet connection



Laptop or computer



Working microphone



Working webcam

2. Important Dates:



Classes Begin	Reading Week	Classes End	Study day(s)	Exam Period
September 5	October 12–20	December 6	December 7–8	December 9–22

September 30, 2024, is National Day for Truth and Reconciliation and is a non-instructional day
December 2, 2024: Last day to withdraw from a full course without academic penalty

Classes Resume	Reading Week	Classes End	Study day(s)	Exam Period
January 6	February 15–23	April 4	April 5–6	April 7–30

3. Contact Information

Course Coordinator	Contact Information
Dr. Andrew Deweyert	See Course Site

Instructor(s)	Contact Information
Kem Rogers	See Course Site
Susanne Schmid	See Course Site

Teaching Assistant(s)	Contact Information
Kayla Vieno-Corbett (Head TA)	See Course Site

4. Course Description and Design

Delivery Mode: in-person; blended; online

ANATCELL 3309 is a detailed study of the cellular and microscopic structure of the various tissues and organ systems of the body, with emphasis on humans, and other mammals used in medical research. Systems are examined stressing the relations of structure to function. **Extra Information:** 2 lecture hours, 2 lab hours per week. This course is a prerequisite for ANATCELL 4425B Advanced Clinical Histology.

Prerequisite(s): Registration in third or fourth year. Note: This course is recommended for students with a background in introductory biology.

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.

Timetabled Sessions

Component	Date(s)	Time
Lectures In person/Online	See Course Site	See Course Site
F2F Labs, Synchronous	See Course Site	See Course Site
Section 200: Recommended synchronous zoom sessions		

- Lectures should be watched **before** the appropriate lab.
- Live attendance of lab sessions is required for sections 002/003 and strongly recommended for section 004.
- A recording will be provided for all lectures and labs.
- Missed work should be completed within 48 hours.
- Questions should be posted to the owl forum.
- Closed captioning will be provided though Panopto.
Synchronous lectures and labs will be recorded with Panopto, accessible through OWL (see OWL site for details). All course material will be posted to [OWL](#). Any changes will be indicated on the OWL site and discussed with the class. Students needing assistance can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). Google [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](#).

All course material will be posted to OWL: <https://westernu.brightspace.com/d2l/login>. 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 Brightspace Help](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

Current versions of all popular browsers (e.g., Safari, Chrome, Edge, Firefox) are supported with OWL Brightspace; what is most important is that you update your browser frequently to ensure it is current. All JavaScript and cookies should be enabled.

5. Learning Outcomes

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

- Explain the structure-function relationship of tissues and organs at the microscopic level
- Navigate histological sections using a virtual microscope
- Recognize and name tissues and organs in microscopic images

6. Course Content and Schedule

Fall Schedule

Week	Dates	Topic	Instructor
1	Sept 5–8	Th Lecture 1: Introduction to the Course	Dr. Deweyert
2	Sept 9–15	M Lab 1: Microscopy and Histology Techniques Tu Lecture 2: Cell Membrane and Organelles Th Lecture 3: Nucleus and Nucleolus	Dr. Deweyert
3	Sept 16–22	M Lab 2: Cytology Tu Lecture 4: Epithelium and Glands Th Lecture 5: Epithelial Junctions and Cell Surface	Dr. Deweyert
4	Sept 23–29	M Lab 3: Epithelia and Glands Tu Lecture 6: Connective Tissue I Th Lecture 7: Connective Tissue II	Dr. Deweyert
5	Sept 30–Oct 6	M Truth and Reconciliation Day Tu Lecture 8: Cartilage W Lab 4: Connective Tissue (online for everyone) W Quiz 1 Opens Th Lecture 9: Bone	Dr. Deweyert
6	Oct 7–13	M Lab 5: Cartilage Tu Lecture 10: Bone Formation Th Lecture 11: Cells of the Nervous System	Dr. Deweyert Dr. Schmid
7	Oct 14–20	Reading Week (starts October 12 th)	N/A
8	Oct 21–Oct 27	M Lab 6: Bone and Bone Formation Tu Lecture 12: Cerebrum and Cerebellum Th Lecture 13: Spinal Cord and Ganglia	Dr. Schmid
9	Oct 28–Nov 3	M Lab 7: Central Nervous System Tu Lecture 14: Peripheral Nervous System Th Lecture 15: Skeletal Muscle	Dr. Schmid Dr. Deweyert
10	Nov 4–10	M Lab 8: Peripheral Nervous System M Quiz 2 Opens Tu Lecture 16: Smooth and Cardiac Muscle Th Lecture 17: Heart	Dr. Deweyert
11	Nov 11–17	M Lab 9: Muscle Tu Lecture 18: Vessels Th Lecture 19: Blood Cells	Dr. Deweyert
12	Nov 18–24	M Lab 10: Heart and Circulation Tu Lecture 20: Erythropoiesis Th Lecture 21: Granulopoiesis	Dr. Deweyert
13	Nov 25–Dec 1	M Lab 11: Blood and Blood Formation Tu Lecture 22: Cells of the Immune System Th Lecture 23: Spleen and Thymus	Dr. Deweyert
14	Dec 2–6	M Lab 12: Lymphoid Tissue M Quiz 3 Opens Tu Lecture 24: Review Session Th Lecture 25: Lab Review (mock practical exam) F Gallery Walk (optional session)	Dr. Deweyert

Winter Schedule

Week	Dates	Topic	Instructor
1	Jan 6–12	Tu Lecture 26: Skin Th Lecture 27: Skin Derivatives	Dr. Rogers
2	Jan 13–19	M Lab 13: Integument Tu Lecture 28: Respiratory Passages Th Lecture 29: Lungs	Dr. Rogers
3	Jan 20–26	M Lab 14: Respiratory System Tu Lecture 30: Teeth Th Lecture 31: Tongue and Salivary Glands	Dr. Rogers
4	Jan 27–Feb 2	M Lab 15: Digestive System I Tu Lecture 32: Esophagus and Stomach Th Lecture 33: Intestines	Dr. Rogers
5	Feb 3–9	M Lab 16: Digestive System II M Quiz 4 Opens Tu Lecture 34: Liver Th Lecture 35: Gallbladder and Exocrine Pancreas	Dr. Rogers
6	Feb 10–16	M Lab 17: Digestive System III Tu Lecture 36: Kidney Th Lecture 37: Urinary Passages	Dr. Rogers
7	Feb 17–23	Reading Week (starts February 15 th)	N/A
8	Feb 24–Mar 2	M Lab 18: Urinary System Tu Lecture 38: Adrenal, Thyroid and Parathyroid Glands Th Lecture 39: Pineal Gland and Endocrine Pancreas	Dr. Rogers
9	Mar 3–9	M Lab 19: Adrenal, Thyroid and Parathyroid Glands Tu Lecture 40: Pituitary Gland Th Lecture 41: Eye	Dr. Rogers Dr. Schmid
10	Mar 10–16	M Lab 20: Endocrine Pancreas, Pineal and Pituitary Gland M Quiz 5 Opens Tu Lecture 42: Ear Th Lecture 43: Ovaries	Dr. Schmid Dr. Deweyert
11	Mar 17–23	M Lab 21: Special Senses Tu Lecture 44: Uterus Th Lecture 45: Organs of Reproduction	Dr. Deweyert
12	Mar 24–30	M Lab 22: Female Reproductive System Tu Lecture 46: Testis Th Lecture 47: Male Ducts	Dr. Deweyert
13	Mar 31–Apr 4	M Lab 23: Male Reproductive System M Quiz 6 Opens Tu Lecture 48: Review Session Th Lecture 49: Lab Review (mock practical exam) F Gallery Walk (optional session)	Dr. Deweyert

7. Participation and Engagement

- Students are expected to participate and engage with content as much as possible
- Students can participate during lecture sessions asking questions live in class or over Panopto
- Students can also participate by interacting in the forums with their peers and instructors

8. Assessment and Evaluation

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

Assessment	Format	Weighting	Due Date	Flexibility
Quiz 1	Online via Owl	5%	Oct 3 rd at 7pm	27h completion window
Quiz 2	Online via Owl	5%	Nov 4 th at 7pm	27h completion window
Quiz 3	Online via Owl	5%	Dec 2 nd at 7pm	27h completion window
Term 1 Lab Assignments	Online via Gradescope	10%	Day of lab at 11:59pm	48-hour no late penalty
Midterm Test 1	In-Person	25%	TBD	Not applicable
Quiz 4	Online via Owl	5%	Feb 3 rd at 7pm	27h completion window
Quiz 5	Online via Owl	5%	Mar 10 th at 7pm	27h completion window
Quiz 6	Online via Owl	5%	April 31 st at 7pm	27h completion window
Term 2 Lab Assignments	Online via Gradescope	10%	Day of lab at 11:59pm	48-hour no late penalty
Final Exam	In-Person	25%	TBD	Not applicable

Designated Assessment: For this course no assessment has been designated as requiring supporting documentation.

Information about flexibility in assessment

- Flexibility in assessment has been applied to this course; therefore, academic consideration requests may be denied on the assessments where flexibility is included
- This course has 6 quizzes with a 27h completion window, extensions may be granted on a case-by-case basis. Once quiz grades have been released (approximately 1 week from the submission date), academic consideration will no longer be granted.
- This course employs flexible deadlines for assignments. The assignment deadlines can be found above in the course outline. For each assignment, students are expected to submit the assignment by the deadline listed. Should illness or extenuating circumstances arise, students are permitted to submit their assignment up to 48 hours past the deadline without a late penalty. Should students submit their assessment beyond 48 hours past the deadline, a late penalty of 50% per day will be subtracted from the assessed grade. Requests for academic consideration supported by documentation must be submitted within 48 hours of the original deadline. The instructor reserves the right to deny such academic considerations, given the deadline flexibility provided. If you have a long-term academic consideration or an accommodation for disability that allows greater flexibility than provided here, please reach out to your instructor at least one week prior to the posted deadline.

General information about assessments

- All assignments are due at 11:59 pm EST unless otherwise specified
- All quizzes are due at 7 pm EST unless otherwise specified
- Students are responsible for ensuring that the correct file version is uploaded; incorrect submissions including corrupt files could be subject to late penalties (see below) or a 0
- Written assignments will be submitted to Gradescope

- Students will have unlimited submissions to Gradescope until the assignment closes
- Rubrics will be used to evaluate assessments and will be posted with the instructions
- 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
- Any grade appeals on assignments, quizzes, or midterms must be received within 3 weeks of the grade being posted.
- 15% of your course grade will be evaluated and returned 3 days prior to the drop deadline

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 assessments:

- Late assessments without academic consideration will be subject to a late penalty 50%/day
- An assessment cannot be submitted after it has been returned to the class.
- One make-up test will be offered for the mid-term (January 10th, 2025) and final exam (May 12th, 2025)
- The mid-year test and final exam must be completed to pass the course. If the first offering and make up exam is missed for the mid-year test or final and the student has received academic consideration, they will have an INC on their transcript and the opportunity to sit for the exam the next time the course is offered. If academic consideration is not granted the student will be given a zero for the assessment.

INC (Incomplete Standing): If a student has been approved by the Academic Advising Office (in consultation with the instructor/department) to complete term work at a later date, an INC will be assigned. Students with INC will have their course load in subsequent terms reduced to allow them to complete outstanding course work. Students may request permission from Academic Advising to carry a full course load for the term the incomplete course work is scheduled.

SPC (Special examination): If a student has been approved by the Academic Advising Office to write a Special Examination and the final exam is the only outstanding course component, an SPC will be assigned. If the class has a makeup exam, the student is expected to write the makeup exam. If the class doesn't have a makeup exam or the student misses the makeup exam for reasons approved by the Academic Advising Office, the student will write the exam the next time the course is offered. Outstanding SPCs will reduce the course load for the term the exam is deferred as outlined in [Types of Examinations](#) policy.

9. Communication

- Students should check the OWL Brightspace site every 24–48 hours
- Students should email their instructor(s) and teaching assistant(s) using the email addresses provide above.
- Emails will be monitored daily; students will receive a response in 24–48 hours
- This course will use discussions forums on Brightspace, which will be monitored daily by a TA and the course instructors.
- Students should post all course-related queries on the discussion forum so that everyone can access the questions and responses

10. Office Hours

- Office hours will be held remotely using zoom.
- Office hours will be held Wednesdays from 1-2pm
- Office hours will be drop in
- Office hours will be group

11. Resources

- All resources will be posted in OWL Brightspace
- Supplemental textbook option: [Histology: A Text and Atlas, Pawlina, W. 8th Edition](#)

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:

- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared (e.g., Must Knows Facebook group, Course Hero, Chegg, etc.)
- 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

Western is committed to providing a learning and working environment that is free of harassment and discrimination. All **students**, staff, and faculty have a role in this commitment and have a responsibility to ensure and promote a safe and respectful learning and working environment. Relevant policies include Western's [Non-Discrimination/Harassment Policy](#) (M.A.P.P. 1.35) and [Non-Discrimination/Harassment Policy – Administrative Procedures](#) (M.A.P.P. 1.35). Any **student**, staff, or faculty member who experiences or witnesses' behaviour that may be harassment or discrimination **must report the behaviour** to the Western's [Human Rights Office](#). Harassment and discrimination can be human rights-based, which is also known as EDI-based, (sexism, racism, transphobia, homophobia, islamophobia, xenophobia, antisemitism, and ableism) or non-human rights-based (personal harassment or workplace harassment).

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. Invest in a planner to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
3. Create weekly checklists to help you stay on track.
4. 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.
5. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
6. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your teaching assistants.
7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.

14. Western Academic Policies and Statements

A. Absence from Course Commitments

Students must familiarize themselves with the Policy on [Academic Consideration – Undergraduate Students in First Entry Programs](#)

Students missing course work for medical, compassionate, or extenuating circumstances can request academic consideration by completing a request at the central academic consideration portal. Students are permitted one academic consideration request per course per term **without** supporting documentation. Note that supporting documentation is **always** required for academic consideration requests for examinations scheduled by the office of the registrar (e.g., December and April exams) and for practical laboratory and performance tests (typically scheduled during the last week of the term).

Students should also note that the instructor may **designate** one assessment per course per term that requires supporting documentation. This designated assessment is described elsewhere in this document. Academic consideration requests may be denied when flexibility in assessment has already been included. Examples of flexibility in assessment include when there are assessments not required for calculation of the final grade (e.g. 8 out of 10 quizzes) or there is flexibility in the submission timeframe (e.g. 72 hour no late penalty period).

Please note that any academic considerations granted in this course will be determined by the instructor of this course, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course syllabus. Supporting documentation for academic considerations for absences due to illness should use the [Student Medical Certificate](#) or, where that is not possible, equivalent documentation by a health care practitioner.

Accommodation for Religious Holidays

Students should review the policy for [Accommodation for Religious Holidays](#). Where a student will be unable to write examinations and term tests due to a conflicting religious holiday, they should inform their instructors as soon as possible but not later than two weeks prior to writing the examination/term test. In the case of conflict with a midterm test, students should inform their instructor as soon as possible but not later than one week prior to the midterm.

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](#).

B. 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.

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

C. 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](#)

D. 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](#).

E. Discovery Credit Statement

Students are permitted to designate up to 1.0 Discovery Credit course (or equivalent) for pass/fail grading that can be counted toward the overall course credits required for their degree program. The details of this policy and the deadlines can be found [here](#).

F. 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. 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

Cell Phone and Electronic Device Policy (for in-person tests and exams)

The Schulich School of Medicine & Dentistry is committed to ensuring that testing and evaluation are undertaken fairly across all our departments and programs. For all tests and exams, it is the policy of the School that any electronic devices, e.g., cell phones, tablets, cameras, smart glasses, smart watch or iPod are strictly prohibited. These devices **MUST** be left either at home or with the student's bag/jacket at the front of the room and **MUST NOT** be at the test/exam desk or in the individual's pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The program is not responsible for stolen/lost or broken devices.

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., 74.45 becomes 74, and 74.50 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.

Statement on the use of Generative Artificial Intelligence (AI) Platforms

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and engage in original research to synthesize and develop their own ideas, arguments, and perspectives. The use of AI tools can serve as a starting point for exploration, with students expected to uphold academic integrity by appropriately attributing all sources and avoiding plagiarism. Writing and digital drawings within assignments should reflect the students' own thoughts and independent produced work. By adhering to these guidelines, students contribute to a responsible and ethical learning environment that promotes critical thinking, independent inquiry and allows them to produce original written contributions.

16. Support Services

- Students who are in emotional/mental distress should refer to Mental Health @Western Health <https://www.uwo.ca/health/> for a complete list of options about how to obtain help.
- To connect with a case manager or set up an appointment, please contact support@uwo.ca.
- Other important links:
 - [Academic Advising \(Science and Basic Medical Sciences\)](#)
 - [Appeal Procedures](#)
 - [Registrarial Services](#)
 - [Student Development Services](#)
 - [Student Health Services](#)

Statement on Gender-Based and Sexual Violence

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.