

Pathology

Pathology 4200a - Current Concepts in the Pathogenesis of Human Diseases.

Course outline for Fall 2020



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*

*see Sections 17 and 18 below

2. Course Overview and Important Dates:



Delivery Mode	Dates	Time
Online	Monday	11:30 AM

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

Classes Start	Midterm Exam	Reading week	Classes end	Exam Period
September 14	October 28 - 31	November 2-8	December 7	December 11 - 22

*November 30, 2020: Last day to drop the course without penalty

3. Contact Information



Course Coordinator	Contact Information
Dr. Chandan Chakraborty	Use OWL message for course-related questions, though email address is also provided

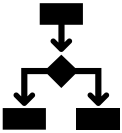
Instructor(s)	Contact Information
Dr. Chandan Chakraborty	cchakrab@uwo.ca
Dr. Zia Khan	Zkhan5@uwo.ca
Dr. Christopher Howlett	christopher.howlett@lhsc.on.ca
Dr. Lisa Cameron	lisa.cameron@schulich.uwo.ca
Dr. Martin Duennwald	martin.duennwald@schulich.uwo.ca

4. Course Description and Design

This course covers current concepts in the molecular and cellular pathogenesis of selected human diseases. These will include endocrine, metabolic, neuropsychiatric, vascular, immune and neoplastic diseases, with emphasis on defects in genes and/or the levels of hormones or growth factor receptors, cellular organelles, intracellular signaling pathways, and cellular metabolism.

Prerequisite(s): [Pathology 3500](#) with a mark of at least 70% or the former Pathology 3240A and the former Pathology 3245B with a mark of at least 70% in each.

Mode	Dates	Time	Frequency
Virtual synchronous (VS) or Virtual asynchronous (VA)	Mondays for VS lectures. VA lectures will be posted one week prior to the scheduled date.	11:30 am	weekly



- Attendance at synchronous sessions is required
- A recording will be provided for synchronous sessions
- A recording of the lectures for asynchronous sessions will be available on OWL site 1 wk prior to the scheduled date
- Closed captioning will be provided on audio or video recordings
- Questions should be directed through the Forum on OWL. Questions should be asked at the latest 3 days prior to midterm or final exam dates.

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. Students interested in evaluating their internet speed, please click [here](#).

5. Learning Outcomes

Upon successful completion of this course, students will have a good understanding of the:

- Molecular and cellular mechanisms of tumor progression
- Warburg effects in cancer progression, detection and treatment
- Stem cells in health and diseases with special reference to cancer
- Immunology of cancer and different types of cancer vaccines
- Molecular pathology of leukemias and other myeloproliferative neoplasms
- Molecular pathogenesis and diagnosis of some important endocrine neoplasms
- Pathogenesis of diabetes mellitus and its complications
- Molecular pathogenesis of neurodegenerative diseases
- Endoplasmic reticulum stress in diseases like diabetes and cancer
- Pathogenesis of different autoimmune diseases

6. Course Content and Schedule

Week	Dates	Topic	Instructor (mode of delivery)
1	Sept 14	Metabolism in Cancer	Dr. C. Chakraborty (Virtual asynchronous)
2	Sept 21	Stem Cell and Cancer	Dr. Z. Khan (Virtual synchronous)
3	Sept 28	Signalling Derangements in Acute and Chronic Leukemias	Dr. C. Howlett (Virtual asynchronous)
4	Oct 5	Immunology of Cancer	Dr. L. Cameron (Virtual asynchronous)
5	Oct 12	No class	
6	Oct 19	Pathogenesis of Pituitary Tumors	Dr. C. Chakraborty (Virtual asynchronous)
7	Oct 26	Molecular Endocrinology of Multiple Endocrine Neoplasia	Dr. C. Howlett (Virtual asynchronous)
8	Nov 2-8	Reading week	
9	Nov 9	Molecular Mechanisms of Primary Aldosteronism	Dr. C. Chakraborty (Virtual asynchronous)
10	Nov 16	Pathogenesis of Diabetes Mellitus and It's Complications	Dr. Z. Khan (Virtual synchronous)
11	Nov 23	Cellular Stress Responses in Cancer and Diabetes	Dr. M. Duennwald (Virtual asynchronous)
12	Nov 30	Cellular Stress Responses in Neurodegenerative Diseases	Dr. M. Duennwald (Virtual asynchronous)
13	Dec 7	Autoimmune Diseases	Dr. L. Cameron (Virtual asynchronous)



7. Evaluation

Below is the evaluation breakdown for the course. No deviations will be made unless discussed with all members of the course.

Assessment	Format	Weighting	Due Date
Quizzes	Multiple choice	30%	Respective Fridays
Midterm	Short answer	35%	October 30, 2020
Final	Short answer	35%	Exam date to be announced

- Quizzes will be published on Tuesday and are due on Friday 11:55 pm EST of the same week unless otherwise specified
- Once opened there will be 10 minutes to answer the quiz. These will be available for one attempt only; they will not be reopened
- Quizzes will be marked automatically
- Virtual proctoring will be used for midterm and final exams

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

8. Online Participation and Engagement



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

9. Communication:



- Students should check the OWL site every 24 – 48 hours
- A weekly update will be provided on the OWL announcements
- Students should email their instructor(s) and teaching assistant(s) using OWL “messages”
- Emails will be monitored daily; students will receive a response in 24 – 48 hours
- This course will use Microsoft Teams for discussions
- 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:



- Office hours will be held remotely using _____ (Zoom, MS Teams, etc) [when??]
- Students will be able to sign up for an appointment using _____ (Sign Up on OWL)
- Students will be able to drop into sessions on _____ at _____
- Group office hours will be held, recorded, and posted for everyone to view

11. Resources



- All materials will be posted on OWL
- Required textbook
- Required study guide
- Additional resources

12. Professionalism & Expectations:

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
- Recordings are not permitted (audio or video) without explicit permission
- Permitted recordings are not to be distributed

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 or application 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. Follow weekly checklists created on OWL or create your own 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 instructor(s) and or teaching assistant(s).
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

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For Western University policy on Consideration for Student Absence, see [Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs](#)

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Accommodation for Religious Holidays

The policy on Accommodation for Religious Holidays can be viewed [here](#). Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the [Western Multicultural Calendar](#).

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 Offences

"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

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, i.e., cell phones, tablets, cameras, 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., 74.4 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.

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](#)

[USC Student Support Services](#)

17. Remote proctoring

Mid-term and final examinations in this course will be conducted using the remote proctoring service, Proctortrack. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. More information about this remote proctoring service is available in the Online Proctoring Guidelines at the following link:

<https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>.

Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. Information about the technical requirements are available at the following link:<https://www.proctortrack.com/tech-requirements/>

18. Use of Recordings

All virtual synchronous sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals under special circumstances. Please contact the instructor if you have any concerns related to session recordings. **Participants in this course are not permitted to record** the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

19. Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

20. Online Etiquette

To ensure the best experience for both you and your classmates, please honor the following rules of etiquette:

- please “arrive” to class on time
- please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material

- to minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- [suggested for classes larger than 30 students] In order to give us optimum bandwidth and web quality, please turn off your video camera for the entire class unless you are invited to speak
- [suggested for cases where video is used] please be prepared to turn your video camera off at the instructor's request if the internet connection becomes unstable
- unless invited by your instructor, do **not** share your screen in the meeting

In virtual synchronous classes the course instructor will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

- if you wish to speak, use the "raise hand" function and wait for the instructor to acknowledge you before beginning your comment or question
- remember to unmute your microphone and turn on your video camera before speaking
- self-identify when speaking.
- remember to mute your mic and turn off your video camera after speaking (unless directed otherwise)

General considerations of "netiquette":

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. "Flaming" is never appropriate.
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.