

PATHOLOGY 4500B/9550B
INTRODUCTION TO FORENSIC SCIENCES
SYLLABUS 2019-2020

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COURSE ADMINISTRATOR:	Cheryl Campbell Pathology & Laboratory Medicine, Dental Sciences, Rm 4044 ccampbel@uwo.ca

1. COURSE DESCRIPTION

Fridays, 8:30-10:30am, Winter Term

Prerequisite(s): [Pathology 3500](#) with a mark of at least 70% or the former Pathology 3240A and 3245B with a minimum mark of 70% in each. Restricted to students in Year 4 of Pathology and Toxicology modules. Limited spaces available to students in Year 4 of other Basic Medical Sciences and Biological Sciences modules, with permission of the course director.

Corequisite(s): none

Extra Information: 2 lecture hours, 0.5 course. Limited Enrolment.

Examination of the medicolegal framework investigating the nature and circumstance of certain deaths. These forensic investigations involve experts in different disciplines assisting the coroner and police in resolving cases. Forensic pathology examines the effects of disease, particularly in sudden death, and effects of various external agents on the human body.

Senate regulation 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.

2. LEARNING OUTCOMES

COURSE GOAL

To provide the student with the understanding of the medical and legal framework surrounding certain deaths and the nature and circumstances of certain deaths.

COURSE OBJECTIVES

1. Understand the scientific and conceptual basis of a medicolegal death investigation
2. Explain how the Coroners Act of Ontario defines the duties and responsibilities of persons involved in medicolegal death investigations.
3. Understand the concepts and scientific basis for determination of the cause and manner of death.
4. Explain different methods of postmortem body identification.
5. Describe postmortem changes of bodies.
6. Explain what knowledge can be obtained by forensic anthropological examination of human remains.
7. Understand the major causes of sudden natural unexpected death.
8. Understand the features of investigations of non-natural deaths caused by: blunt force, sharp force, firearms, asphyxia, environmental injury, head trauma, fires, motor vehicle-related injury.
9. Learn how various drugs and poisons can cause death.
10. Appreciate the unique aspects of pediatric death investigations.

11. Develop skills to concisely articulate a concept in both written and oral formats
12. Develop skills to critically appraise the steps of the autopsy

COURSE MATERIALS:

Lecture Notes:

Lecture notes for most presentations will be posted on the OWL course site. These notes should **not** be considered completely comprehensive and sufficient for student learning. They supplement the material presented in class. The powerpoint presentations shown in class will not be posted due to the graphic nature of some of the images presented.

Disclaimer:

***Students should be aware and prepared for the fact that the nature of the course content is such that graphic and potentially disturbing images will be shown and tragic and disturbing forensic cases will be discussed. An effort is made to omit information in order to prevent revealing specific identifying information about the events discussed. ***

Resource:

1. A mandatory e-book resource is available through Western Libraries:
Knight's forensic pathology, 4th Ed.
By Bernard Knight and Pekka Saukko: London : Arnold : New York ; Oxford University [distributor], c 2004
<https://ebookcentral-proquest-com.proxy1.lib.uwo.ca/lib/west/detail.action?docID=5535400>
2. A mandatory e-report is available via the link below
Goudge Inquiry; Vol. 1 (Executive Summary)
https://www.attorneygeneral.jus.gov.on.ca/inquiries/goudge/report/v1_en_pdf/Vol_1_Eng.pdf
3. A mandatory journal article via the link below: **Lachs MS and Pillemer KA. Elder abuse. N Engl J Med. 2015;373:1947-1956.**
https://www.nejm.org/doi/10.1056/NEJMra1404688?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dwww.ncbi.nlm.nih.gov
4. A mandatory journal article via the link below: **Miah A. The public autopsy: somewhere between art, education and entertainment. J Med. Ethics. 2004;30:576-570.**
<https://jme.bmj.com/content/30/6/576>

A recommended supplemental e-book resource is available through Western Libraries:

Forensic pathology for forensic scientists, police, and death investigators
By Joseph Prahlow Totowa, N.J. : London : Humana ; Springer [distributor], c2010
<http://books2.scholarsportal.info.proxy1.lib.uwo.ca/viewdoc.html?id=/ebooks/ebooks2/springer/2011-03-04/1/9781597454049>

This is an excellent comprehensive resource with chapters relating to most of the lecture presentations. You will find this useful to supplement and consolidate the lectures and the provided notes. Illustrative images in this text are very instructive. You are not responsible for learning subject material in the text which is not outlined in the notes or covered in a lecture presentation.

3. EVALUATION:

Component	Date	% of Final Mark
Midterm Test	Please see lecture schedule Test information will also be posted to OWL	20%
Final Examination	April exam period Exam information will also be posted to OWL	30%
In-Class Assignments	Please see lecture schedule	30%
PechaKucha Seminar	Please see lecture schedule Abstract & Presentation	20%

- For a breakdown of which topics are examined on each test/exam please refer to the course schedule.
- Both the test/exam will consist of multiple choice questions, extended match questions, and short answer questions. The final exam will cover only material taught after the midterm test. Examination questions may be based on information that is not explicitly provided in the notes.

Test/Exam viewing:

Students may request to view their exams within three weeks from the date that the grade was released. In order to do this you must make an appointment with the Course Administrator to go over the exam.

Accommodated Exams:

Arrangements may be negotiated with WESTERN Services for Students with Disabilities and must be done so well before the time of the examination(s).

15% Assessment Rule: (1000- and 2000-level courses)

At least three days prior to the deadline for withdrawal from a course without academic penalty, students will receive assessment of work accounting for at least 15% of their final grade. For more details, refer to the link below:

http://www.uwo.ca/univsec/pdf/academic_policies/exam/evaluation_undergrad.pdf

POLICY ON ROUNDING AND BUMPING OF GRADES

Across the Basic Medical Sciences Undergraduate Education programs and within the Department of Pathology and Laboratory Medicine 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.**

4. ASSIGNMENTS

A. PechaKucha Seminar

This assignment is composed of a written abstract and an oral presentation of **YOUR CHOICE**.

A1. Abstract

An abstract that summarizes a topic that is relevant to the medicolegal investigation of death and will serve as the proposal for the PechaKucha presentation. An abstract is a paragraph or two that provides a summary/description of the PechKucha presentation. The length of the abstract is 450-500 words and includes 5 key words. Abstract is due at 8 am in writing and in class (see lecture schedule for due date). If you are not attendance for class on the due date, the abstract will be accepted in class two weeks before the scheduled due date. See the Writing Support Centre (free service) at Western University.

A2. Modified PechaKucha Presentation 15 x 15

PechaKucha is a specific style of presenting, with its origins from Japan, where a presenter shows 15 powerpoint slides for 15 seconds of commentary each. Each student will present on the PechaKucha Seminar (see lecture schedule) on a topic as decided from their abstract.

Topics to facilitate brainstorming:

- Secret homicides
- Investigative aids
- Elder abuse & neglect
- Child abuse & neglect
- Miscarriage of justice
- Forensic Photography
- Postmortem Radiography
- Death investigation bioethics
- Artifacts & mimics
- Mass fatality
- Health Care Serial Killers
- In-custody deaths
- Media
- MAiD
- Postmortem organ & tissue donation
- Explosions
- Exhumations
- Postmortem cultures
- Pregnancy related maternal deaths
- Collecting exhibits from the body
- Bioterrorism

Further details and instructions will be provided at the start of the course.

B. In-Class Assignments

Three (3) in-class assignments will be given (see lecture schedule), following the lecture. Assignment materials will be provided during class. Each assignment will consist of a case scenario, including relevant facts obtained from all steps of the autopsy. The assignments can be completed individually or with classmates. There will be time allotted for group discussion. It is expected that each participant will examine the autopsy findings, and discuss the forensic scientific issues that the case raises in relation to the most reasonable cause and manner of death. Each group will present their findings during the last hour of class. Each person will submit a 1-page summary of their findings (outline provided with each case) at the end of the class. Disagreement between participants over findings is permitted (and encouraged!).

These cases are NOT to be copied, shared or distributed in any way. Students may use online and paper resources during the assignment.

MID-TERM EXAM:

The mid-term exam will be based on all the material learned in class up and from the required readings to and including **February 12, 2020**. The exam will consist of short answer questions. There will be no essay questions. The marking scheme will be noted on the paper.

FINAL EXAM:

The final exam will be based on all the material learned in class including the lectures. The exam will consist of short answer questions. There will be no essay questions. The marking scheme will be noted on the paper. The exam will be 3 hours in length (location and exact date/time to be determined).

5. STATEMENT ON ACADEMIC OFFENCES

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf

6. SIMILARITY REVIEW SOFTWARE

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.

7. ABSENCE FROM COURSE COMMITMENTS

Academic Consideration for Student Absences

If you are unable to meet a course requirement due to illness or other serious circumstances, you must seek approval for the absence as soon as possible. Approval can be granted either through a **self-reporting of absence** or via the Academic Counselling Office of the Faculty of Science located in NCB 280, and can be contacted at scibmsac@uwo.ca.

NEW!! For further information, please consult the university's policy on academic consideration for student absences as there are updates to the academic consideration procedures.
https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf

The policy on Accommodation for Religious Holidays can be found here:
http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf

A. Absence for medical and non-medical reasons:

Students must familiarize themselves with the Policy on Accommodation for Medical Illness for Undergraduate Students, located at:

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

A Western Student Medical Certificate (SMC) is required when a student is seeking academic accommodation. This documentation should be obtained at the time of the initial consultation with the physician/nurse practitioner or walk-in clinic.

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

Medical/Compassionate Relief Program Policy

*It is current policy that students who are unable to write a test or examination or other form of course evaluation are required to obtain a medical certificate that is taken to the Academic Counseling Office, NCB 280 (for Science and Basic Medical Science students) or to your appropriate Home Faculty Counseling Office. In the case of an unexpected absence on compassionate grounds, documentation is also requested. **Such documentation must be submitted by the student directly to the Academic Counseling office and not to the instructor.** An academic counselor in that office will review and either approve or deny the accommodation request. It will be the Academic Counseling office that will determine if accommodation is warranted. This policy applies to all forms of assessment, including evaluations that are less than 10%.*

Statement from the Academic Counselling Office, Faculty of Science (for Science and BMSc students)

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Academic Counselling Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved by the Academic Counselling Office and the instructor has been informed.

PATHOLOGY AND LABORATORY MEDICINE POLICY FOR MISSED EXAMS:

- If a student misses one exam and the corresponding make-up exam for valid reasons (see Absence Policy), exam #4 (final exam) at the end of the course will be a cumulative exam (material from the entire year) worth 50% of Final Mark, and is subject to approval by the course coordinators.
- If a student misses two or more exams (i.e. more than one exam) or the final exam and its corresponding make-up exam, he/she will be expected to write the final exam the next time the course is offered (i.e. the following year). This will be a cumulative exam (worth 25% multiplied by number of exams missed), and is subject to approval by the course coordinators.

SPECIAL EXAMINATIONS

http://www.uwo.ca/univsec/pdf/academic_policies/exam/definitions.pdf

A Special Examination is any examination other than the regular final examination, and it may be offered only with the permission of the Dean/Academic Counselling Office 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. You may also be eligible to write the Special Examination if you are in a "Multiple Exam Situation". See:

http://www.registrar.uwo.ca/examinations/exam_schedule.html

A Special Examination must be written at the University or an Affiliated University College no later than 30 days after the end of the examination period involved. To accommodate unusual circumstances, a date later than this may be arranged at the time permission is first given by the Dean/Academic Counselling Office of the Faculty. The Dean/Academic Counselling Office will consult with the instructor and Department Chair and, if a later date is arranged, will communicate this to the Office of the Registrar.

If a student fails to write a scheduled Special Examination, permission to write another Special Examination will be granted only with the permission of the Dean/Academic Counselling Office in exceptional circumstances and with appropriate supporting documents. In such a case, the date of this Special Examination normally will be the scheduled date for the final exam the next time the course is offered.

When a grade of Special (SPC) or Incomplete (INC) appears on a student's record, the notations will be removed and replaced by a substantive grade as soon as the grade is available.

8. ADDITIONAL INFORMATION/STATEMENTS

The website for the Office of the Registrar is <http://www.registrar.uwo.ca>

STATEMENT ON OFFICIAL EMAIL ADDRESSES

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html> 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.

STATEMENT ON ACADEMIC OFFENCES

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

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.

STATEMENT ON USE OF CELL PHONE AND ELECTRONIC DEVICES

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 and the Department of Pathology and Laboratory Medicine 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 Department of Pathology and Laboratory Medicine is not responsible for stolen/lost or broken devices.

COPYRIGHT 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.

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 Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

9. SUPPORT SERVICES:

- Academic Counselling (Science and Basic Medical Sciences): <http://www.uwo.ca/sci/counselling>
- **Accessibility:** 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 Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation. The policy on Accommodation for Students with Disabilities can be found here:
https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic%20Accommodation_disabilities.pdf
- **Student Development Centre (SDC):** Learning-skills counsellors at SDC are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling. <http://www.sdc.uwo.ca>
- **Mental Health:** Students who are in emotional/mental distress should refer to Mental Health@Western for a complete list of options about how to obtain help.
http://www.health.uwo.ca/mental_health
- **Student Health Services:** <https://www.uwo.ca/health/shs/index.html>
- Additional student-run support services are offered by the USC, <http://westernusc.ca/services>
- **Writing support centre located in the Student Services Building.**
<http://www.sdc.uwo.ca/writing/> for a complete list of options how to obtain help

PATHOLOGY 4500B/9550B "INTRODUCTION TO FORENSIC SCIENCES"

2019-2020 Lecture Schedule

Fridays, 8:30am-10:30am, Dental Sciences Building, Room 2016

Course Coordinator: Dr. Rebekah Jacques

04-November-19

DATE	TIME	TOPIC	LECTURER
Friday, January 10, 2020	8:30-9:30am	Structure and Function of Ontario Death Investigation System	R. Jacques
	9:30-10:30am	Cause/Manner of Death	
Friday, January 17, 2020	8:30-9:30am	Body Identification	E. Tugaleva
	9:30-10:30am	Time of Death Determination, Postmortem Changes	E. Tugaleva
Friday, January 24, 2020	8:30-9:30am	Natural Deaths	R. Jacques
	9:30-10:30am	In-class Assignment	
Friday, January 31, 2020	8:30-9:30am	Toxicology and Drug-related Deaths	E. Tweedie
	9:30-10:30am		
Friday, February 7, 2020	8:30-9:30am	Asphyxia	E. Tweedie
	9:30-10:30am	Environmental Injuries	
WEDNESDAY, FEBRUARY 12, 2020	7:00-9:00PM	MID-TERM TEST , SOCIAL SCIENCES CENTRE 3028 (EXAM WILL COVER LECTURES UP TO AND INCLUDING FEBRUARY 7, 2019)	
Friday, February 14, 2020	8:30-9:30am	Forensic Neuropathology	E. Tugaleva
	9:30-10:30am	Fire Deaths	
FEBRUARY 15-23, 2020		FAMILY DAY & READING WEEK	
Friday, February 28, 2020	8:30-9:30am	Blunt Trauma: Motor Vehicle Related Deaths	M. Shkrum
	9:30-10:30am	Penetrating Trauma: Firearms Injuries PechaKucha Abstract is due in class	
Friday, March 6, 2020	8:30-9:30am	Penetrating Trauma: Cutting/Stabbing	M. Shkrum
	9:30-10:30am	Pediatric Forensic Pathology and the Goudge Inquiry	
Friday, March 13, 2020	8:30-9:30am	Pathology of Elder Abuse & Neglect	R. Jacques
	9:30-10:30am	In-class Assignment	
Friday, March 20, 2020	8:30-9:30am	Forensic Anthropology	M. Spence
	9:30-10:30am		
Friday, March 27, 2020	8:30-9:00am	Principles of Courtroom Testimony	C. Sherrin
	9:30-10:30am	Death Investigation Bioethics In-class Assignment	R. Jacques
Friday, April 3, 2020	8:30-9:30am	PechaKucha Seminar	R. Jacques
	9:30-10:30am		
APRIL 6-26, 2019		FINAL EXAM PERIOD (EXAM WILL COVER ALL LECTURES AND ASSIGNED READINGS)	

ASSIGNED READING

DATE	TOPIC
Friday, January 10, 2020	1. Knight's Chapter 1 (p1-32) Total pages: 32
Friday, January 17, 2020	2. Knight's Chapter 3 (p. 95-101) Total pages: 7
Friday, January 24, 2020	3. Knight's Chapter 25 (p. 515-521, 537-548) Total pages: 18
Friday, January 31, 2020	4. Knight's Chapter 27 (p. 567-574) Total pages: 8
Friday, February 7, 2020	5. Knight's Chapter 14 (p.353-358) Total pages: 6 6. Knight's Chapter 16 (p.405-409) Total pages: 4
Friday, February 14, 2020	7. Knight's Chapter 5 (p. 167-171; 173-176) Total pages: 9 8. Knight's Chapter 11 (p. 311-320) Total pages: 9
Friday, February 28, 2020	9. Knight's Chapter 4 (p. 133-135, 139-148) & 9 (p. 277-282) Total pages: 19 pages 10. Knight's Chapter 8 (p. 241-244) Total pages: 4 pages
Friday, March 6, 2020	11. Knight's Chapter 4 (p. 149-152) Total pages: 4 pages 12. Goudge Inquiry Vol. 1 (p.8-10) Total pages: 3
Friday, March 13, 2020	13. Journal article: Lachs MS and Pillemer KA. Elder abuse. N Engl J Med. 2015;373:1947-1956.
Friday, March 20, 2020	14. Knight's Chapter 3: 103-108, 115-116, 120-123: 11 pages
Friday, March 27, 2020	15. Journal article: Miah A. The public autopsy: somewhere between art, education and entertainment. J Med. Ethics. 2004;30:576-570.