# CHL5919H – PUBLIC HEALTH MYCOLOGY, Fall 2017

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**COURSE DESCRIPTION:**
This lecture-based course will familiarize students with fungi of public health importance, particularly those that cause disease in humans and other animals. The course will focus on the population health implications, environmental risk factors, clinical presentation, pathophysiology, and treatment of fungal infections. The course will also cover aspects of the ecology, physiology and evolutionary biology of the agents responsible. The course will address other ways in which fungi influence human and animal health both in Canada and globally.

**SCHEDULE AND TIMING:**
The course will meet weekly W10–12 in Health Sciences Building (HS), 155 College Street, Rm 106. Sessions will be in lecture format.

**TUTORIALS:**
Three tutorials will be held to discuss and provide assistance with the assignments will be held in Rm 100 of the Gage Building at 223 College Street. Each tutorial will be repeated twice on different dates.

| Topic | Date | Time |
|---|---|---|
| 1: Basics of Wikipedia | Sept 13, 2017 | 6-8 pm |
| | Sept 20, 2017 | 6-8 pm |
| 2: Researching and drafting your article | Oct 4, 2017 | 6-8 pm |
| | Oct 11, 2017 | 6-8 pm |
| 3: Polishing and formatting your article | Nov 1, 2017 | 6-8 pm |
| | Nov 15, 2017 | 6-8 pm |

**PRE-REQUISITES:**
Permission of the instructor

**EXCLUSION:**
BOT406H1; HMB436H1

**RECOMMENDED PREPARATION:**
EEB268H1; EEB331H1/CSB353H1

**ONLINE MATERIALS:**

- **Course website:** http://individual.utoronto.ca/jscott/courses/medmyco/medmyco.html
- **Wiki:** https://dashboard.wikiedu.org/courses/University_of_Toronto/HMB436H_Medical_and_Veterinary_Mycology_(Fall_2017)?enroll=uwmpatjc

**READINGS:**

- Cole D et al. 31-7-2017. Improvement of fungal disease identification and management: combined health systems and public health approaches. Lancet Infectious Diseases, doi: 10.1016/S1473-3099(17)30308-0.
- Fisher MC et al. 2012. Emerging fungal threats to animal, plant & ecosystem health. Nature 484: 186–194.
- Levetin E et al. 2016. Taxonomy of allergenic fungi. Journal of Allergy and Clinical Immunology: In Practice 4(3): 375-385.
- Reiss E et al. 2011. Fundamental Medical Mycology. Hoboken, New Jersey: Wiley-Blackwell. **This excellent textbook is available on line to U of Toronto students free of charge. I'll refer to it as FMM**.
- Stein CM et al. 2015. Fulminant hepatic failure following ingestion of wild mushrooms.CMAJ 187:822–824.

**2017 LECTURE SCHEDULE:**

| DATE | TOPIC |
|---|---|
| Sep 13, 2017 | Topic: Fungal structure, function and phylogenetics<br>Reading: FMM, Chapter 1 |
| Sep 20, 2017 | Topic: Physiology and ecology of fungi<br>Reading: Nature 484: 186-194 (2012) |
| Sep 27, 2017 | Topic: Poisonous mushrooms<br>Reading: CMAJ 187:822–824 (2015) |
| Oct 04, 2017 | Topic: Asthma, allergy and mould<br>Reading: Journal of Allergy and Clinical Immunology: In Practice 4(3): 375-385 (2016) |
| Oct 11, 2017 | Topic: White nose syndrome, amphibian chytridiomycosis, etc.<br>Reading: none |
| Oct 18, 2017 | *MIDTERM TEST* held from 10-12 in Health Sciences Building (HS) Rm 106 |
| Oct 25, 2017 | Topic: Dermatomycosis & superficial mycoses<br>Reading: FMM, Chapter 21 |
| Nov 01, 2017 | Topic: Histoplasmosis & blastomycosis<br>Reading: FMM, Chapter 6 and Chapter 4 |
| Nov 08, 2017 | NO CLASS SCHEDULED |
| Nov 15, 2017 | Topic: Coccidiodomycosis & paracoccidioidomycosis<br>Reading: FMM, Chapter 5 and Chapter 7 |
| Nov 22, 2017 | Topic: Aspergillosis, sporotrichosis, mucormycosis/zygomycosis & rhinosporidiosis<br>Reading: FMM, Chapter 14, Chapter 9 and Chapter 17 |
| Nov 29, 2017 | Topic: Candidiasis & cryptococcosis<br>Reading: FMM, Chapter 11 and Chapter 12 |
| Dec 06, 2017 | Topic: Medical mycology and population health<br>Reading: Lancet Infectious Diseases (31-7-2017), doi: 10.1016/S1473-3099(17)30308-0 |

**EVALUATION:**

1. A mid-term test will held Oct 18, 2017 from 10–12 in the regular lecture room. It will cover all lecture materials discussed up to Oct 11, 2017. Although the content of the readings will not be covered specifically, you will probably not do well if you do not complete the readings. The test will be worth 25 % of your final mark and will be in multiple choice, true/false & short answer format.

2. You will be assigned an individual project to draft a Wikipedia article on a biomedically important fungus. More detailed information on this project is provided on the course website and in the course Wiki. **Note that the assignment description given on the course Wiki site applies to the undergraduate version of this course. For those taking this as a graduate course, your assignment schedule and mark allocation is different.** The project overall is worth 50 % of your grade, and it is broken-up into 4 assignments:

   **Assignment #1:** Wikipedia enrolment and training - **due Sept 15, 2017 at 23:59 UTC** (1 %)
   **Assignment #2:** Article outline and bibliography - **due Oct 13, 2017 at 23:59 UTC** (5 %)
   **Assignment #3:** Final article - **due Nov 17, 2017 at 23:59 UTC** (20 %)
   **Assignment #4:** Critical review of 3 articles I will assign - **due Dec 8, 2017 at 23:59 UTC** (24%)

3. A final examination to be held at a place and time to be announced. It will count for 25 % of your final mark. All material covered in the lectures will be tested. The format of this examination will be a combination of short answer questions and brief case studies.

**EXTENSION REQUESTS & PENALTY FOR LATE ASSIGNMENTS:**

Even if you are not enrolled in the course yet, I expect you to complete assignments 1 & 2 on time! I will grade your assignments based on the last "save" date prior to the due date on the Wikipedia timestamp. Except for medical reasons in accordance with the DLSPH policy or in prior agreement with me at least 1 week in advance of the due date, I will not grade late assignments; however, even if you miss an assignment, you must complete it before the next one is due so that you stay on track.

**ACADEMIC INTEGRITY:**
The University of Toronto treats cases of academic misconduct very seriously. Academic integrity is a fundamental value of learning and scholarship at the UofT. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that your UofT degree is valued and respected as a true signifier of your individual academic achievement.

The University of Toronto's Code of Behaviour on Academic Matters outlines the behaviours that constitute academic misconduct, the processes for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences could include:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes working in groups on assignments that are supposed to be individual work).

On tests and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers.
- Letting someone else look at your answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

**ACCESSIBILITY AND ACCOMODATION:**
Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or Accessibility Services at 416-978-8060 or accessibility.utoronto.ca.