

## SPECIAL TOPICS IN VIROLOGY (BIOD20H3)

### COURSE INSTRUCTOR

- Dr. Christina Guzzo: [christina.guzzo@utoronto.ca](mailto:christina.guzzo@utoronto.ca)
- Office Hours (online, Bb collaborate): Thursdays from 11:30am-1:30pm  
- 15 min time slot must be booked 24hr in advance via Quercus calendar

### COURSE COORDINATOR

- Jennifer Campbell: [jac.campbell@utoronto.ca](mailto:jac.campbell@utoronto.ca)

### TEACHING ASSISTANT

- Jonathan Burnie: [jonathan.burnie@mail.utoronto.ca](mailto:jonathan.burnie@mail.utoronto.ca)

### LECTURES – all online, synchronous (recordings to be posted)

- Tuesday 10:00am – 12:00pm (Bb collaborate)
- Thursday 10:00am – 11:00am (every other week, see class schedule)

### TEXTBOOK

- None
- PowerPoint slides and journal articles will be supplied for students to download/print and bring to class (via Quercus).
- Lecture recordings will be available for viewing asynchronously.

### EXAMS

- Midterm (2hrs, in-class, February 23<sup>rd</sup>)
- Final Exam (3hrs, during final exam period, date TBA)

### COURSE PREREQUISITES

- BIOC15H & BIOC12H [or IMCB08H plus IMCC03H (for Industrial Microbiology students only)]

### GRADING SCHEME

- Journal Club = 30% (5 articles x 6% each)
- Midterm Exam = 25%
- Final Exam = 45%

### JOURNAL CLUB (30%)

- The details of the Journal Club will be outlined in slides presenting in Lecture 1, with slides and the recording available on Quercus. This presentation will constitute part of this syllabus.

### MIDTERM EXAM (25%)

- The midterm will cover lecture topics up to and including February 9<sup>th</sup> (week 5).
- The format will be multiple choice and short answer.

### FINAL EXAM (45%)

- The final exam will cover all lecture topics, with an emphasis on lectures 6-11.
- The format will be multiple choice, short answer, and long answer.

## **COURSE LEARNING OBJECTIVES**

- 1) Learn key concepts and terminology that explain virus and host interactions (i.e. virus infection), and host immune responses to infection.
- 2) Synthesize knowledge of how viral processes lead to host disease, both at molecular and organismal level.
- 3) Critically evaluate the role of science in society (i.e. importance of pathogens, vaccines, etc.) and how viruses affect our current lives (e.g. emerging and re-emerging pathogens).
- 4) Develop a meaningful sense of the importance of scientific research in human health and society at large.
- 5) Identify what types of laboratory techniques could be used to address a given question in viral pathogenesis.
- 6) Perform targeted primary literature searches on a given topic of interest.
- 7) Critically analyze existing research articles for scientific writing, scientific merit/integrity, laboratory techniques, data representation, and overall conclusions.
- 8) Synthesize and summarize large amounts of information (i.e. scientific papers) into concise, meaningful points (i.e. journal club assignments)

## **LECTURE TOPICS (tentative)**

1. Virus characteristics and classification
2. HIV treatment, cure, host responses, and vaccines
3. Emerging and re-emerging viruses, including:
  - Influenza, Ebola, Zika, Chikungunya, Measles, SARS Coronaviruses
4. Viral immunology
5. Virus diagnostics
6. Research techniques
7. Careers (in virology and scientific applications)

## CLASS SCHEDULE

	= 2hr lecture (Tuesdays)
	= 1hr discussion (Thursdays)

DATE	WEEK	CLASS TOPIC
12-Jan	1	Lecture 1 - Introduction & overview
14-Jan		Training Session on Literature Searching (UTSC Librarian)
19-Jan	2	Lecture 2 - HIV part 1
21-Jan		Journal Club - Article 1 discussion in class
26-Jan	3	Lecture 3 - HIV part 2 + Influenza
28-Jan		Assignment 1 submission (no class)
02-Feb	4	Lecture 4 - Influenza + Emerging Diseases (Ebola)
04-Feb		Journal Club - Article 2 discussion in class
09-Feb	5	Lecture 5 - Emerging diseases (Zika)
11-Feb		Assignment 2 submission (no class)
16-Feb	6	READING WEEK
18-Feb		
23-Feb	7	MIDTERM IN CLASS
25-Feb		Journal Club - Article 3 discussion in class
02-Mar	8	Lecture 6 -Emerging diseases (Chikungunya, Measles)
04-Mar		Assignment 3 submission (no class)
09-Mar	9	Lecture 7 - Emerging diseases (Coronavirus)
11-Mar		Journal Club - Article 4 discussion in class
16-Mar	10	Lecture 8 - Viral Immunology
18-Mar		Assignment 4 submission (no class)
23-Mar	11	Lecture 9 - Diagnostics
25-Mar		Journal Club - Article 5 discussion in class
30-Mar	12	Lecture 10 - Research Techniques
01-Apr		Assignment 5 submission (no class)
06-Apr	13	Lecture 11 - Careers & Final Exam Review

## **COURSE POLICIES**

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### **COURSE COMMUNICATIONS**

Content-related questions should be asked during class, on the class Discussion board on Quercus, or during a scheduled office hour appointment with Prof. Guzzo.

- Please note: no content-related questions will be answered over email.

For help with Quercus specifically, please contact [student-helpdesk@utsc.utoronto.ca](mailto:student-helpdesk@utsc.utoronto.ca) or visit <https://www.utsc.utoronto.ca/projects/quercus/student-help/>

### **ACCESSIBILITY NEEDS**

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 course instructor and/or the *AccessAbility* Services Office as soon as possible. I will work with you and *AccessAbility* Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC *AccessAbility* Services staff (located in SW302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca). The sooner you let the course instructor know your needs the quicker we can assist you in achieving your learning goals in this course.

### **ACADEMIC INTEGRITY:**

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.

On tests and exams cheating includes using or possessing unauthorized aids, communicating with others during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

Please avoid academic dishonesty, have confidence in your own ability to learn and grow academically by doing your own thinking and writing, and when in need, ask for help!

### **LATE ASSIGNMENTS:**

Each group member will lose 1% for each day that an assignment is late, up to a total of 5%. While it is the responsibility of the group leader to formally submit the assignment, all group members have a responsibility to ensure the group assignments are completed in a timely manner.

Group leaders must upload a copy of their ppt presentation to the Group Page (under files) 24hr in advance of the Journal Club session (i.e. before 10am on Weds) - failure to do so will result in a loss of 50% of the final grade received for the group leader. For example, if the group receives 8/10 on the assignment (earning 4% towards their grade), the group leader will only receive half of that (they will only earn 2%).

### MISSED ATTENDANCE IN JOURNAL CLUB:

Attendance will be taken at each Journal Club session to ensure all group members are present. If a group member has a valid reason for their absence they should communicate with the group and provide written feedback on the article to the group (in advance of the J Club session) to substitute their absence in the Journal Club discussion. The TA should also be informed of any absences and be provided a copy of the written feedback to substitute an absence. If a student is absent without providing advance notification (to the group and TA) and a valid reason, they will receive a mark of zero for the entire article assignment (i.e. loss of 5%).

### MISSED MIDTERM POLICIES:

- **Advance conflict:** If you know **in advance** that you cannot write the Midterm exam at the scheduled time because it conflicts with some other **valid activity**, please notify the course instructor as soon as possible so that we can make arrangements for you to write the Midterm at an alternative time. **Any such alternative time must be at least two weeks before the scheduled date of the Midterm Exam (Feb 23, 2021).**
- **Medical illness:** If you miss the Midterm due to medical illness, then you must submit a detailed UTSC Medical Certificate filled out by the physician who saw you on the day of the Midterm. This note must be submitted to the course instructor as soon as possible following the Midterm, whether in person or via email. Other medical notes will not be accepted, and if the UTSC Medical Certificate is not completed to the satisfaction of the course instructor, it may be refused. The UTSC Medical Certificate can be found via the following link:
  - [http://www.utsc.utoronto.ca/~registrar/resources/pdf\\_general/UTSCmedicalcertificate.pdf](http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf)
- **Other valid reasons:** If you miss the Midterm for any other valid reason, please consult with the course instructor as soon as possible. The course instructor will determine whether the reason given for the missed Midterm is valid in accordance with university policies. Also, the course instructor may ask for any documentation required to verify the reason given.
- **Invalid reasons:** Students who miss the Midterm for any invalid reason will receive a grade of zero.

### HEALTH AND WELLNESS

The university experience can be a challenging one, there is no need to go about it alone. If you or anyone you know could use someone to talk to (or text with), here are some resources in addition to your instructors, program coordinators, and TAs:

- Your **campus registrar** and **office of residence of student life (ORSL)**

- **MySSP** [24/7, talk in 146 languages & text in 35 languages]: available on Apple App Store and Google Play Store.
- **Good 2 Talk Student Helpline** [24/7]: 1-866-925-5454
- **Gerstein Centre** [24/7]: 416-929-5200

**\*\*DISCLAIMER\*\* The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, particularly in the event of COVID-19-related changes to University policies and guidelines.**