

**MICR402 - Virology**  
**CRN 12321**  
**Fall 2023**

**Instructor:** *Dr Mariya Goncheva (she/her)*

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**Territorial acknowledgement**

We acknowledge and respect the lək̓ʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

**Class environment**

We consider our classroom and office hours to be a place where you will be treated with respect, and we welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability- and other visible and non-visible differences. All members of this class are expected to create a respectful, welcoming and inclusive environment for every other member of the class. We will gladly honour your request to address you by an alternate name or gender pronoun.

Throughout the course, we will discuss a number of topics and diseases that have affected marginalized communities, brought on prejudice and discrimination and have disproportionately disadvantaged specific groups. When discussing these topics, please remember respect and compassion. If you or your loved ones have been affected by these conditions and you find in-class content or discussions triggering, please know you can leave the classroom at any point.

**Class times and location**

Monday and Thursday 8.30 AM – 9.50 AM, at Cornett A221 (location subject to change).

This is an **IN PERSON** class and all lectures will be delivered face-to-face.

**Office hours**

Office hours will be held **by ZOOM only**. I will be available online on Mondays 1pm – 2 pm. Outside of these times, you can use the Brightspace forums for content-related questions or reach me by email.

**Brightspace site**

A Brightspace site has been created for the course. I will upload lecture slides there, usually the day before a class happens. However, in some cases, lecture slides will only be available after the lecture has happened.

**Brightspace Discussion Forums:** There is a Forum on the Brightspace site, where I encourage you to post questions you have about the material we cover in class. I will moderate the forum and answer questions, usually 2-3 times a week.

**Class communication**

You're welcome to come and chat with me during office hours. However, if you have a specific content-related question, please post it on the discussion board on Brightspace first. This way all your

colleagues will be able to see the answer as well.

When you're using email to contact me, please include MICR402 in the Subject line. Be prepared that my email response times will vary, and I will not respond to emails outside of business hours (Monday to Friday 8 am to 5 pm).

### **Textbook**

There is no specific textbook for the course. Most of the basic biology is based on information from Fields Virology, but be aware that the textbook itself will not provide you with all sufficient information.

### **Learning objectives**

- Students will be able to illustrate all the necessary steps for the propagation of infectious viruses
- Students will know the mechanisms of pathogenesis of important human viruses, and be able to compare viral pathology between different viruses
- Students will be able to describe societal, epidemiological and environmental factors that have contributed to viral evolution, spread and pathogenesis
- Students will be able to understand virology research articles and critically examine the methodology and conclusions described therein

### **Tentative class schedule**

Topics are subject to change without warning.

<b><u>Date</u></b>	<b><u>Topic</u></b>	<b><u>Notes</u></b>
Thursday 7 <sup>th</sup> September	Introduction to the class and to viruses	
Monday 11 <sup>th</sup> September	Viral classification, genome organization and structure	
Thursday 14 <sup>th</sup> September	The viral lifecycle – part 1	
Monday 18 <sup>th</sup> September	The viral lifecycle – part 2	
Thursday 21 <sup>st</sup> September	Techniques to study viruses	
Monday 25 <sup>th</sup> September	Viruses and the immune system – intrinsic immunity	
Thursday 28 <sup>th</sup> September	<b>Practice journal club paper</b>	
<b>Monday 2<sup>nd</sup> October</b>	<b><u>University closed</u></b>	
Thursday 5 <sup>th</sup> October	Viruses and the immune system – adaptive immunity	
<b>Monday 9<sup>th</sup> October</b>	<b><u>University closed</u></b>	

Thursday 12 <sup>th</sup> October	Acute viral infections – respiratory viruses (influenza and SARS)	<a href="#"><u>First assignment due tomorrow, Friday 13<sup>th</sup> October 2023</u></a>
Monday 16 <sup>th</sup> October	Acute viral infections – respiratory viruses (RSV, common cold, coronaviruses)	
Thursday 19 <sup>th</sup> October	Acute viral infections – enteric viruses	
Monday 23 <sup>rd</sup> October	Acute viral infections - poxes	
Thursday 26 <sup>th</sup> October	<b>Journal club assignment review and essay assignment practice</b>	
Monday 30 <sup>th</sup> October	Acute viral infections – haemorrhagic viruses, polio and rabies	<b><u>Last day to drop classes</u></b>
Thursday 2 <sup>nd</sup> November	Chronic viral infections – hepatitis viruses	
Monday 6 <sup>th</sup> November	Chronic viral infections – herpes viruses	
Thursday 9 <sup>th</sup> November	Chronic viral infections - HIV	<a href="#"><u>Second assignment due tomorrow, Friday 10<sup>th</sup> November 2023</u></a>
<b>Monday 13<sup>th</sup> November</b>	<b><a href="#"><u>University closed</u></a></b>	
Thursday 16 <sup>th</sup> November	Chronic viral infections – tumour-causing viruses	
Monday 20 <sup>th</sup> November	Antivirals and drug resistance	
Thursday 23 <sup>rd</sup> November	Vaccines	
Monday 27 <sup>th</sup> November	Viruses and society	
Thursday 30 <sup>th</sup> November	Viruses and society	
Monday 4 <sup>th</sup> December	Review session	

### **Assessments and Grading**

There will be three (3) assessments during the course - two during the semester, and a final exam during the regular exam period in December. Below are the summaries of the assessments, due dates and requirements for completion.

- 1. Critical review of a journal article - worth 20% of the course grade. Due by 11.59 PM on Friday, 13th October 2023.**

At the start of the course, you will be given a choice of 2 research articles and a set of questions pertaining to the methodology, data interpretation and conclusions of the paper. You are required to only read and answer questions to **one** of these articles of your choice. Questions will be provided in a fillable document. Once completed, you will be able to upload your document with answers on Brightspace and submit them for assessment.

**Submissions past the deadline will have a late penalty applied, with 15% of the grade reduced every 24h and a grade of 0 received for submissions more than 72h after the deadline. Please note this includes weekends and holidays.**

**2. Essay style opinion and graphical abstract - worth 30% of the course grade. Due by 11.59 PM on Friday, 10th November 2023.**

At the start of the course, you will be given 2 broad questions or statements. You are to choose **one** of these topics and write a 1000-word opinion piece on it. You are allowed to interpret the question as you choose, but all of your statements, arguments and points of view **must** be supported by appropriate scientific literature and cited accordingly. All citations should be in the Vancouver-style citation system.

You are also required to submit a Graphical Abstract that accurately represents the arguments you have made in your written portion. The graphical abstract should allow your reader to understand the main points conveyed in your 1000 words of writing. The Graphical Abstract can be generated with any software of your choice. Microsoft Office is available for free to all students via UVic. If you prefer, you can also paint/draw by hand and scan the image for your submission. The medium of the graphical abstract has no impact on the grade, nor is your level of artistic skill being assessed. The point of the graphical abstract is to summarize the message you have in your written assignment.

Graphical abstracts should be a single image with no legend attached. You are allowed to use writing in the Figure itself but try and limit that to labels. Both your essay and graphical abstract should be submitted as a single document via Brightspace.

**Assessments where the Graphical Abstract is missing are NOT allowed and will be considered as not submitted, receiving a grade of 0.**

**Submissions past the deadline will have a late penalty applied, with 15% of the grade reduced every 24h and a grade of 0 received for submissions more than 72h after the deadline. Please note this includes weekends and holidays.**

**3. Final exam - worth 50% of the course grade. Date and time TBD**

Your final exam will be a cumulative essay-style exam. You will be given 3-4 different topics, and you will be required to write an essay on **two** of them. You will be allowed to bring up to 10 pages of notes or materials with you.

**UVic Grading Scheme**

A+	90-100	B+	77-79	B+	65-69	F	<50
A	85-89	B	73-76	B	60-64	N*	<50

A-	80-84	B-	70-72	D	50-59		
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**\*N grades - Students who have completed the following elements will be considered to have completed the course and will be assigned a final grade:**

- **one written assessment (Critical review of a journal article OR Essay style opinion and graphical abstract)**
- **The final exam**

Failure to complete one or more of these elements will result in a grade of “N” regardless of the cumulative percentage on other elements of the course. An N is a failing grade, and it factors into a student’s GPA as 0. The maximum percentage that can accompany an N on a student’s transcript is 49.

**A note on grades and reassessment**

All students will be treated equally and evaluated on the same criteria. Final grades will be calculated to a single decimal place and rounded to the nearest integer. Marks WILL NOT be bumped to the next grade or GPA.

Students who wish to have a reassessment of their work MUST submit the reassessment request to me no later than 7 calendar days after receiving their grade. Note that reassessment of the work may lead to a grade remaining the same, a grade decrease or a grade increase.

**Important dates**

Friday 13th October 2023 - Assessment 1 is DUE (Critical review of a journal article)

Friday 10th November 2023 - Assessment 2 is DUE (Essay style opinion and graphical abstract)

**DEPARTMENT INFORMATION AND POLICIES**

1. The Department of Biochemistry and Microbiology upholds and enforces the University’s policies on academic integrity. These policies are described in the current University Calendar. All students are advised to read this section.

2. Cell phones, computers, and other electronic devices must be turned off at all times during live class sessions unless being used for the purpose of connecting and engaging with the class.

3. No recordings of live lectures are permitted without permission of the instructor. However, many courses will be recorded by the instructor for accessibility for students unable to attend. If you do not wish to be recorded, contact your instructor to determine if alternative arrangements can be made.

4. Students and instructors are expected to assess their health daily and avoid campus if they are ill.

5. Course materials, such as notes, problem sheets, quizzes, examinations, example sheets, or review sheets, may not be redistributed without the explicit written permission of the instructor.

6. Students are expected to be available for all exams.

7. The Department of Biochemistry and Microbiology considers it a breach of academic integrity for a

student taking a deferred examination to discuss the exam with classmates. Similarly, students who reveal the contents of an examination to students taking an examination are considered to be in violation of the University of Victoria policy on academic integrity (see current University Calendar). Students must abide by UVic academic regulations and observe standards of scholarly integrity (no plagiarism or cheating). Online exams must be taken individually and not with a friend, classmate, or group, nor can you access notes, course materials, the internet, or other resources without the permission of the instructor. You are prohibited from sharing any information about the exam with others. Use of unauthorized electronic devices and accessing the internet and class material during exams is prohibited unless permission is granted by the instructor. Instructors may use Browser Lockdown Software to block access during classes and exams. The student code of conduct can be found [here](https://www.uvic.ca/services/advising/advice-support/academic-units/student-code-of-conduct/index.php)

8. Deferral of a final exam must be requested with an Academic Concession form and submitted directly to Undergraduate Records. Deferred final exams for fall term courses will be arranged by the instructor. Deferred final exams for spring term courses will be arranged through Undergraduate Records and must be written before the end of the summer term as stipulated in the University Calendar.

9. Requests for review/remark of a midterm exam must be made within one week of the exam being returned.

10. The instructor reserves the right to use plagiarism detection software or other platforms to assess the integrity of student work.

11. Supplemental exams or assignments will not be offered to students wishing to upgrade their final mark.

12. Anonymous participation in online classes is not permitted without permission of the instructor.

### **Important note about COVID-related stress**

The current pandemic is placing added stressors- financial, mental, and physical- on everyone. Your wellbeing is of foremost importance. If you are experiencing difficulties coping, the University has resources to help. Please reach out to Counselling Services, the Centre for Academic Communication, or Learning Assistance Program for assistance.

### **Centre for Accessible Learning**

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, approach the Centre for Accessible Learning (CAL) as soon as possible in order to assess your specific needs. <https://www.uvic.ca/services/cal/index.php>

### **Course Experience Survey (CES)**

We value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The

survey is vital to providing feedback to us regarding the course and our teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to your CES dashboard. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. We will remind you nearer the time but please be thinking about this important activity.