### MBIO 4020 IMMUNOLOGY

#### January-April 2022.

# Instructor: Dr. Deb Court; Deborah.Court@umanitoba.ca

*Email:* The University requires all students to activate an official U of M email account, which should be used for all communications between yourself and the university, including all your instructors. Emails sent to instructors from an email account other than the University of Manitoba account will automatically be deleted. Students are expected to practice professional email etiquette. All email communications should comply with the University's policy on electronic communication with students, which can be found at: <a href="http://umanitoba.ca/admin/governance/governing\_documents/community/electronic communication">http://umanitoba.ca/admin/governance/governing\_documents/community/electronic communication with students to policy.html.</a>

You can expect me to answer your email sent on a working day within 24 hours, or if sent on a holiday or weekend, within 72 hours.

#### Web Site: UMLearn: www.umanitoba.ca/d21

*Course delivery:* All lectures and exam will be delivered remotely via Zoom from the start of term until February 26, 2022. With the current pandemic situation, the University followed public health guidance and asked courses to be delivered remotely where possible. The University continues to monitor the developments of the latest pandemic situation and will provide an update as to whether in-person activities can be safely offered as per public health guidelines after February 26. Like all other University-wide announcements, we anticipate that the activity plans (be they remote or in-person) for after February 26 will be made by email as well as posted on the University website. Please keep an eye on these two sources for the announcement over the next few weeks as well as direction from your course instructor.

#### Course technology requirements:

Students enrolled in the course must ensure they satisfy the following minimum technological requirements:

- 1. A computing device where one can create and edit documents,
- 2. An internet connection capable of streaming videos and downloading software, and
- 3. Access to a web-cam and microphone
- 4. Equipment to photograph or scan written documents; a smart phone is sufficient

*Privacy Concerns:* This course will be delivered, in part, remotely using a video conferencing software platform, and you may be required to install University approved software on your device, and you may be required to have and use a webcam. During videoconferencing, your personal information, in the form of your name, image, and any questions or answers you pose during classes, may be collected under the authority of The University of Manitoba Act. The information you provide will be used by the University for the purpose of supporting student learning.

Exams for Winter term courses may be invigilated online. If your exam is invigilated online, you may be required to install University approved software on your computer and you may be required to have and use a webcam while taking the exam. During proctoring, your personal information, in the form of your name and image may be collected under the authority of The University of Manitoba Act. Your personal information will not be used or disclosed for other purposes, unless permitted by The Freedom of Information and Protection of Privacy Act (FIPPA). If you have any questions about the collection of your personal information, contact the Access & Privacy Office (tel. 204-474-9462), 233 Elizabeth Dafoe Library, University of Manitoba, Winnipeg, MB, R3T 2N2. If you have any questions regarding your online lectures or exams, please contact me.

*Image Recordings:* Screen shot capture and/or video recording of material presented by the instructor and/or classmates is strictly for **personal use only** due to copyright and/or privacy concerns. **Posting of images that include lecture material and/or instructor and/or classmates on the internet is strictly prohibited. Recording and/or distribution of exam material in any format is strictly prohibited.** 

**Professional Conduct:** It is recognized that these are unusual circumstances, and some adjustments need to be made when working virtually. At the same time, we do want to remind you that University policies, such as the **Respectful Work and Learning Environment policy**, still apply, as do basic expectations around how students will engage with each other and all members of the University. This means that when participating in classes, online meetings, etc., students are expected to behave professionally, and follow the same basic norms as they would in person, such as being properly clothed, not being impaired, and participating respectfully. **Essentially, if you wouldn't do it in an in-person class, don't do it in a virtual setting.** Please familiarize yourself with the UM Respectful Work and Learning Environment (RWLE); Section 2.5(c) of the Student Non-Academic Misconduct and Concerning Behaviour Procedure describes types of inappropriate or disruptive behaviour.

## Course Materials:

**Textbook**: There is no required textbook, but there is an optional book available in paper format and as an e-book: Kuby Immunology (8<sup>th</sup> or 9<sup>th</sup> Ed. by Punt *et al*. W.H. Freeman & Co. publishers). We will <u>not</u> be using their "Immunoportal", so don't buy it! Other books are also useful, such as Immunology - A Short Course by Coico & Benjamini.

You are responsible for what is covered in both the synchronous and asynchronous lectures and any additional information indicated during the lectures or on UMLearn. You are not responsible for entire chapters in the textbook.

## TOPICS (Chapters Based on Kuby Immunology 8th Ed.)

- 1. Introduction / Review innate vs acquired immunity (Ch. 5/4)
- 2. Immunoglobulins (Ch.3) on-line module to be completed at your own pace
- 3. Antibodies as Tools (Ch. 20)
- 4. Cells and organs involved in the immune response (Ch. 2)
- 5. Antigens (various chapters)
- 6. Vaccines: HIV vs SARS-CoV2 (Ch.17&18; review and research papers)
- 7. Immunoglobulin Genes (Ch. 6)
- 8. T Cell Receptors structure and genetics (Ch. 6)
- 9. Major Histocompatibility Complex MHC structure and genetics (Ch. 7)
- 10. Cytokines (Ch. 3)
- 11. B and T Cell development and activation and memory (Ch. 9-12)
- 12. Autoimmune disease mechanisms and immunological approaches to treatment (Ch.16 and review papers)
- 13. Allergy (Ch.15 and review papers)

#### **Guest Lectures (some material will be testable)**

To be announced (1 or 2)

#### Assessment for final grade in the course:

0 0 0		Date
Assignment 1	10%	Tues., Feb. 8 (by 10:00 pm; on UMLearn)
Assignment 2	10%	Fri., Mar. 4, (by 10:00 pm; on UMLearn)
In class test 1	10%	Thurs., Feb.17 (1:00 pm online)
In class test 2	25%	Tues., Mar. 29 (1:00 pm online or in class)
Final Exam	45%	(set by Student Records Office)
(VW date – April 25 – written feedback assignments and in class tests will be provided by that date)		

There are <u>no deferred in-class tests</u>. If you miss a test, the marks automatically will be added to the final exam. Medical or other notes are not required. However, please note that circumstances that result in missing multiple course components (e.g. assignments/exams/classes) may require medical documentation (e.g., Authorized Withdrawal, Tuition Fee Appeal, Leave of Absence, or <u>accessibility-related accommodations</u>). Students are advised to speak with an <u>advisor in their faculty/college/school of registration</u> in this case.

The **Final examination** will be comprehensive (i.e., cover all lectures), and will be scheduled by Student Records during the April examination period. Permission to write a deferred final exam is granted by your Faculty - the instructor is not involved in this process. If it is necessary for you to write your final exam at an alternate date, you must visit your Faculty office with appropriate documentation to request permission for a deferred exam. This is a **strict** university policy, and there are no exceptions. If a deferral is granted it is your responsibility to contact the instructor as soon as possible for the date of the deferred exam.

Letter grades will be assigned by taking into consideration the grade distribution in the class and the University of Manitoba's descriptors A<sup>+</sup> (Outstanding), A (Excellent), B<sup>+</sup> (Very Good), B (Good), C<sup>+</sup> (Satisfactory), C (Adequate), D (Marginal), F (Failure); see <u>http://umanitoba.ca/student/records/grades/686.html</u>. The goal is to provide grades that represent performance in the context of the class; the grades will not be curved to meet an expected distribution, but conversion of percentages to letter grades will be at the discretion of the instructor.

For this course, **a grade of 45% on the final exam is required to pass the class**. The grading scheme generally, but not always, will be close to the following:  $A^+$  (>90%), A (80-89.9%), B<sup>+</sup> (75-79.9%), B (70-74.9%), C<sup>+</sup> (65-69.9%), C (60.0-64.9%), D (50-59.9%), F (<50% total, or <45% in final exam). Note that in some courses, an  $A^+$  is received only for numerical grades of >93% (Nursing, Asper) so there is precedent for shifting grade boundaries higher than those listed above.

Academic Integrity: Guidelines are stated in your calendar regarding University policy with respect to academic dishonesty (particularly plagiarism and cheating) and behavior and absence from final exams. All work is to be completed independently unless otherwise specified. Please remember that group projects are subject to the rules of academic dishonesty, and every group member must ensure that a group project adheres to the principles of academic integrity. The Faculty of Science web page has detailed information regarding discipline (https://catalog.umanitoba.ca/undergraduate-studies/policies-procedures/student-discipline-bylaw/) along with a video message (https://youtu.be/Ok-lilm4SeE). Please read/watch and follow these guidelines, and ask if you have any questions.

*Student Accessibility Services:* The University of Manitoba is committed to providing an accessible academic community. <u>Students Accessibility Services (SAS)</u> offers academic accommodation supports and services such as note-taking, interpreting, assistive technology, and exam accommodations. Students who have, or think they may have, a disability (e.g., mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation. The course instructor is willing to meet with students to discuss the accommodations recommended by Student Accessibility Services, but extended exam times can only be provided with approval from SAS.

Student Accessibility Services 520 University Centre Phone: (204) 474-7423 Email: <u>Student\_accessibility@umanitoba.ca</u>

## Voluntary Withdrawal (VW)/Authorized Withdrawal (AW)/Limited Access Policy (LAP):

*VW:* Students have the opportunity to voluntarily withdraw (VW) from this course; please refer to the University website for the deadline date. By then, you will have received feedback to allow you to assess your progress and determine if you are achieving the grade you are aiming for in this course. If you are unlikely to be successful in the course, or you are not achieving the grade that you are aiming for, you should consider a VW from the course. You may contact me to review your progress in more detail, or you may discuss the VW option with a Faculty academic advisor. Students enrolled in the course after the VW deadline will be assigned a final grade. <a href="http://umanitoba.ca/u1/know\_yourself/573.html">http://umanitoba.ca/u1/know\_yourself/573.html</a>

*AW:* At times medical or compassionate circumstances arise in a student's life that prevent them from performing as they would in normal circumstances. If you are in this position, please contact a Faculty academic advisor to discuss your options. Be prepared to provide documentation, which supports your situation. http://www.umanitoba.ca/student/resource/student\_advocacy/authorized-withdrawal/index.html

*Safe learning environment:* The University of Manitoba (the "UM") is committed to maintaining a safe learning environment for all students, faculty, and staff. Should campus operations change because of health concerns related to the COVID-19 pandemic or other campus-wide emergency, it is possible that this course will move to a fully remote delivery format. Should the instructor be required to stay at home for an extended period and an alternate instructor not be available, the course may move temporarily to a remote delivery format. In that instance, you may be provided with an asynchronous option to minimize the impact the change may have on your schedule.

**PPE and Mask Wearing:** In a face-to-face environment, our commitment to safety requires students to observe all physical distancing (2m) and personal protective equipment (PPE) guidelines set by the University (<u>https://umanitoba.ca/coronavirus</u>)

While on campus and in class, you must wear PPE (Personal Protective Equipment) as stipulated in current University policies, procedures, and guidelines. Students who fail to comply are subject to disciplinary action in accordance with the <u>Student Discipline Bylaw</u> and the <u>Non-Academic Misconduct and Concerning Behaviour</u> <u>Procedure</u>.

Medical-grade 3-ply masks are available at many locations on campus, including specific classroom locations, designated by your unit, the Elizabeth Dafoe Library (Fort Garry Campus) and the Brodie Centre main doors (Bannatyne Campus). Additional PPE, if necessary for a specific learning environment, will be provided to you by the teaching unit.

If you do not follow masking and other requirements you will be asked to leave the learning space and may only return to the class already in progress when you have complied with these requirements. Repeated issues will result in disciplinary action as previously noted. **Students should not eat or drink during class time.** 

# Illness:

Remember: **STAY HOME IF YOU HAVE SYMPTOMS OR ARE ILL.** If you become sick or are required to self-isolate, you should notify your instructor by email so you can develop a plan to complete the course learning outcomes while you are absent.

If you have symptoms, do not come to campus or any UM facilities. Complete the <u>self-assessment</u> on the Manitoba Public Health site and follow the guidelines, which may include booking a COVID-19 test. What to do if you become ill while at UM:

1. Leave the classroom, lab, or workspace immediately. Continue to wear your mask while leaving the premises and/or while waiting for transportation.

2. Perform hand hygiene (soap and water or hand sanitizer) and avoid contact with others, and minimize contact with the physical environment.

3. Once at home, complete the <u>MB self-assessment</u> and follow the directions that are provided.

4. Inform your supervisor(s), instructor(s) or, if in residence, the appropriate individual.

5. You must remain off campus and all UM facilities until cleared to return in accordance with self-assessment, testing results, or MB Health requirements.

### Recommended transportation options if you become ill (in order):

1. Drive yourself home.

2. Pick-up by family or friend – remember to keep your mask on and to distance as much as possible, and where possible, open a window to improve ventilation.

3. Pickup by taxi/Uber:

- Remain masked and perform hand hygiene before entering the vehicle.
  - Avoid touching the inside of the vehicle
  - Keep your mask on for the duration of the ride
  - Where possible, open a window to improve ventilation.

4. Winnipeg Transit buses - Winnipeg Transit has indicated that individuals that are ill must not use Transit.