

Instructors:	Dr. Deb Court, Dr. April Gislason, Dr. Teri de Kievit
Emails:	Deborah.Court@umanitoba.ca ; April.Gislason@umanitoba.ca ; Teresa.DeKievit@umanitoba.ca The expectation is that under normal circumstances emails will be answered within two business days. Prior to exams, FAQ will be posted in UMLearn. Please check your myumanitoba.ca email address regularly for updates and use it to correspond with instructors.
Web Site:	UMLearn: www.umanitoba.ca/d2l
Format:	From Jan. 25 – Feb. 24, classes will be delivered remotely via Zoom. After Feb. 25, depending on the pandemic and in accordance with University guidelines, in-person classes may resume. If we do return to campus, it is expected that students are able to attend in person and a hybrid delivery mode will NOT be offered . (see below)
Zoom:	For synchronous activities (some lectures, in-class assignments) your zoom username must include your first and last names so you can be identified as a member of the class if necessary. All interactions on zoom must be respectful to all and reflect behaviours you would use in a work or classroom setting. (see below)
SAS:	Course instructors are 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. (see below)
Reference material:	There is no required textbook. This course relies heavily on material that you learned in MBIO 3410. Research papers and reviews will be provided on UMLearn to support classroom teaching.

Important note: *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 layout and approach:

The goal of the course is to teach you to understand and apply molecular biology to methods commonly used in many facets of current microbiology. To really understand how to apply something, you need to use it as well as understand it. The course will be made up of formal lectures, exercises during class time and take-home assignments that allow you to apply molecular biology to

- i) CRISPR technology in eukaryotic systems (Court)
- ii) Bacterial Tn-Seq approaches (Gislason)
- iii) Reporter gene systems (de Kievit)

The general breakdown of the course will reflect this approach: (55% assignments, 35% in-class quiz, 10% written final exam).

Activity	Date / Details	% of final grade
Assignment #1 Crispr 1	Mon. Feb 14 at 10 pm; UMLearn	10
Assignment #2 Crispr 2	Fri. Feb 18 at 10 pm; UMLearn	10
Assignment #3 Crispr 3	Mon. Mar 7 at 10 pm; UMLearn	10
Quiz (CRISPR only)	In class-time Mar 10; whether in person/online is TBD	15
Assignment #4 Tn-Seq 1	Fri. Apr 1 at 10 pm; UMLearn	15
Quiz (Tn-Seq only)	In class date TBD	20
Final exam: Part 1 – reporter systems “take-home” assignment	Due same day as final exam	10
Final exam: Part 2 – Reporter systems only (2 hours)	Scheduled by Registrar’s Office	10

The VW date is **April 25** and you will have written feedback on >50% of the quiz and assignments before that date.

From Jan. 25 – Feb. 24, lectures will be presented either synchronously or asynchronously via Zoom. Recordings of the lectures will be available on UMLearn. It is very strongly recommended that you keep up with the lecture material as indicated in the schedule, so that you have the background information needed to efficiently complete the assignments.

There will be class time available for working on the assignments and the instructor and TA will be available during those class times. While you may be able to complete the assignments outside of class time, it is strongly advised that you attend to receive prompt answers to questions. Prior to Feb. 26, the instructor and TA will be available only via zoom during class time.

There are no deferrals for the in-class quizzes or the assignments. If you miss an in-class test, the marks automatically will be added to the final exam. Medical notes or other documentation are not required for missing an in-class test. Missed assignments will be dealt with on a case-by-case basis.

Letter grades will be assigned by taking into consideration the grade distribution in the class and the University of Manitoba’s descriptors A⁺ (Outstanding), A (Excellent), B⁺ (Very Good), B (Good), C⁺ (Satisfactory), C (Adequate), D (Marginal), F (Failure); see <http://umanitoba.ca/student/records/grades/686.html>. 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 instructors.

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⁺ (75-79.9%), B (70-74.9%), C⁺ (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.

Assignments 1-4 (Court and Gislason)

- Each student will be assigned a group number via UMLearn.
- Some assignments will have 2 parts: “genetic engineering” and “reading the literature”
- For the “genetic engineering” assignments, students can work alone, or in teams of 2-4. Each team must complete the assignment that matches the group number that was given to one of their team members. For example, if there are 3 students in a team and they are given group numbers 1, 2, and 4 in UMLearn, then they must work on assignment 1 or 2 or 4 (3 is not allowed). Membership can change between assignments.
- For the genetic engineering assignments, ONE set of answers must be submitted. For example, if Deb is in group 2 and her team completes the group 2 assignment, then Deb submits the answers to the group 2 assignment folder.
- For parts of assignments based on reading the literature, EACH student must complete an assignment and submit their own answers.
- Pools of randomized questions will be used so everyone will receive a unique assignment that covers the same material. The types of questions will be provided with the instructions for the assignment. Detailed instructions will be provided with the posted assignment.

The **Final examination** will consist of two parts:

Part 1 will be a take home reporter system assignment, due on the same day as the Final written exam;

Part 2 will be a written exam covering the reporter lectures (Dr. de Kievit’s material) and will be scheduled by Student Records during the April examination period.

As per University of Manitoba policies, students are not permitted to access any unauthorized materials during an examination. Details on materials that can be accessed individually will be provided before the exam.

Communication of any kind with people other than the instructor or IST, or with any web-based services, during an exam is absolutely forbidden in all cases.

Permission to write a **deferred final exam** is granted by your Faculty - the instructor is not involved in this process. This is a strict university policy, and there are no exceptions. If it is necessary for you to write your final exam at an alternate date and you are a Science student, you must use the online form at <https://sci.umanitoba.ca/academicadvising/>. Select undergraduate - then science - then final exams under “what do you want help with”. There is a link to the form to request a deferred exam. If you are in another faculty, contact your faculty office. 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.

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.

Emails: 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:

http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html.

Note: in-class/remote behaviour and/or emails that are perceived to be harassing or threatening in nature may be reported to the departmental Associate Head (Undergraduate Affairs) for assessment, and possibly to the Faculty of Science for potential disciplinary action.

Privacy Concerns: This course is 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 classmate 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.**

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.

Note: in-class/remote behaviour and/or emails that are perceived to be harassing or threatening in nature may be reported to the departmental Associate Head (Undergraduate Affairs) for assessment, and possibly to the Faculty of Science for potential disciplinary action.

Student Accessibility Services: The University of Manitoba is committed to providing an accessible academic community. [Students Accessibility Services \(SAS\)](#) 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.

Student Accessibility Services
520 University Centre
Phone: (204) 474-7423
Email: Student_accessibility@umanitoba.ca

Students - UM COVID-19 - Syllabus Insert – January 19, 2022.

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 (<https://umanitoba.ca/coronavirus>)

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 [Student Discipline Bylaw](#) and the [Non-Academic Misconduct and Concerning Behaviour Procedure](#).

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 [self-assessment](#) 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 [MB self-assessment](#) 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 (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.**