MAT1341A FALL 2020: COURSE SYLLABUS

WELCOME! You are welcome here. In this course, all students are welcome, including all races, colours, cultures, ethnicities, genders, and sexualities. This course is a space for respect for each other, including students, teaching assistants, staff, and professors.

INSTRUCTOR: Prof. Anne Broadbent

- **Office:** online only
- **E-mail address:** abroadbe@uottawa.ca
  In your email correspondence, please include the *course code* in the subject. Please use your *full name*.
- **Office hours:** Tuesdays (3:00–4:00), or by appointment. The connection method will be announced on Brightspace. During office hours, you can ask questions in a one-on-one fashion. Any modification to Office hours will be posted on Brightspace. No office hours during reading week.

COURSE HOMEPAGE: See the course website on Brightspace for this syllabus, announcements, lecture information, grades, videos, and more (login and registration in the course required). You are responsible for checking this space regularly and subscribing to announcements.

STAYING WELL AND EVEN THRIVING DURING THE PANDEMIC:
This edition of the course is being offered remotely. Essentially that means that we would ideally be having the course in person but because we are not able to do so, we are making a rapid conversion to an online/digital format. Normally, an online course is designed with a team of experts over a long period of time; this edition of the course was rapidly converted over a few months. I hope for your understanding if there are some bumps along the road and I welcome your suggestions any time. We are trying to make the most of a difficult situation.

I recognize that many people are struggling during the pandemic; others are thriving. I do want you to use this time to figure out how to be well (and even excel!) during this time. To that end, please consult the online resource in Brightspace called "Excelling in online learning". Please do not hesitate to reach our for help.

COURSE FORUM: We will be using Piazza (https://piazza.com/) for online class discussion. The system is highly catered to getting you help fast and efficiently from classmates, the TAs, and myself. Rather than emailing questions to me, I encourage you to post your questions on Piazza. You can even do so anonymously! You can find a link to our class Piazza page in Brightspace.

PREREQUISITE: Calculus and Vectors (MCV4U), MAT1339, or an equivalent. You *must* have one of these to be enrolled.

MINIMAL SETUP REQUIREMENTS: The University of Ottawa has made having a camera, microphone, and internet connection (2 MB/s or more) a necessity to studying online in Fall 2020. Financial assistance towards equipment purchase may be available. In order to improve the sound quality of videoconference interactions, a headset with microphone is recommended.

OFFICIAL COURSE DESCRIPTION: Review of complex numbers. The fundamental theorem of algebra. Review of vector and scalar products, projections. Introduction to vector spaces, linear

independence, bases; function spaces. Solution of systems of linear equations, matrix algebra, determinants, eigenvalues and eigenvectors. Gram Schmidt, orthogonal projections. Linear transformations, kernel and image, their standard matrices. Applications (e.g. geometry, networks, differential equations).

LECTURES: Lecture times are: Tuesdays 1:00–2:20 and Thursdays 11:30–12:50 via videoconferencing software (instructions for access will be given in Brightspace). Additional course material may be available online and you should treat this material as a course requirement, just as any lecture.

- First class: September 10, 2020
- **Note:** You should also prepare for each lecture by reading ahead from the course text.

TEXTBOOK: "*Vector Spaces First*", by Thierry Giordano, Barry Jessup and Monica Nevins. (E-book available online for **free** to registered students via Brightspace).

APPROXIMATE COURSE CONTENT: Chapters 1–19 and 21–24 (but not necessarily in that order). Please note that the material in chapters 2 and 3 is merely review and will be the subject of the first (Diagnostic) test.

PROBLEM SESSIONS/DGDS: Discussion Groups (DGDs) will take place every Monday throughout the term until lectures end (except during Thanksgiving and Study Week). The time is indicated in your student timetable. The DGD will be online and instructions for logging in will be made available before the first DGD.

- First DGD: Monday, September 14, 2020 (this DGD will be a pre-recorded video)
- First live DGD: Monday, September 21, 2020
- **Note: DGDs are highly recommended for this section of MAT1341**. They will help you practice the material with hands-on exercises in smaller groups. You will also have a chance to see problems supplementing the material covered during the lectures. One way of making the DGDs useful for yourself is to try solving the exercises beforehand and ask from the TA any question you might have. Note that you should not consider the DGD as another lecture.

TESTS AND EXAMS:

- The *final* exam will be scheduled by the registrar during the exam period (the exact date and time will be announced accordingly). You are responsible to find the date, and time of the final exam yourself — do not rely on your friends for this.
- There will be **three** tests and all will be held during the lecture times (although slightly shorter than the full lecture time). The details are as follows:

Tests	Date	Time and Place
Test 1 (Diagnostic Test)	Thursday, September 17, 2020	**11:35–12:35**,online
Test 2	Thursday, October 15, 2020	**11:35–12:45**, online
Test 3	Thursday, November 19, 2020	**11:35–12:45**, online

- **Important Note:** This course is **cumulative**, *i.e.*, the tests will cover all the material that we have covered in the class up to that point.

NOTICE ON ASYNCHRONOUS LEARNING AND RECORDING: In order to enable asynchronous learning, all lectures and DGDs will be recorded and made available online in Brightspace. Do not share these recordings.

PROCTORING FOR THE TESTS AND THE EXAM: This course requires online proctoring for all tests and for the exam. Students will require a webcam, microphone and internet connection (see above). Before the first test, students may be required to provide authentication information and a signed *academic integrity pledge*. Remote proctoring may be supported by Respondus. Information relative to Respondus is available on the last page of this syllabus.

GRADING SCHEME:

Test 1 (diagnostic)	5%
Test 2	25%
Test 3	25%
Final Exam	45%

If you miss one or more tests with a valid and accepted justification, the weight of those tests will be transferred to the final exam. The deadline to submit such justification is one (1) week after the test. Failing to do so will result in a mark of 0 for that test. Additionally, your personalized final exam will automatically be **adjusted** to place more weight on the material of the missed tests. Please note, this may result in an increase in the length and duration of your final exam.

Any request for corrections to the marking of a test must be submitted within one (1) week of the return of the graded test. Please note that the entire test may be re-marked.

For general details on grading scheme at uOttawa, see here. Please note, your final grade is calculated as in the table above *except* if the grade of your exam is less than 40%, then your grade for the course will be the grade obtained on the final exam.

IMPORTANT DATES: Some important dates, such as the deadline to add or withdraw from courses, can be found here. Please note that for this term: "Classes on Monday, October 12, Thanksgiving (a statutory holiday), are cancelled. They will take place on Wednesday, December 9, when the usual

Monday course schedule will apply." Hence, for this course, you can expect a DGD on Wednesday, December 9, according to the usual Monday schedule.

HELP CENTRE: This is a drop-in centre (located online only this term) where you can make an appointment with math professors and graduate students who can help you with problems and exercises. See this link. Further details will be posted in Brightspace.

CLASS RULES AND REGULATIONS: Every student has the right to enjoy a respectful environment. Every student has the responsibility to ensure a respectful environment. Please consult the "Online Conversations" handout in Brightspace for some tips in this regard.

ACADEMIC INTEGRITY

> "Academic integrity means being responsible for the quality of your work, preparing it honestly and respecting the intellectual community you are part of as a student. It is a core value in all scholarly work... Every member of the University community has the moral obligation to learn and share knowledge with honesty and integrity. **Students should be proud to show their diploma, knowing that they've earned it honestly** and by respecting the principles of academic integrity." — uOttawa website on Academic Integrity.

Academic fraud. Academic fraud is an act by a student that may result in a false evaluation (including papers, tests, examinations, etc.). It is not tolerated by the University. Any person found guilty of academic fraud will be subject to severe sanctions.

Please be particular mindful of academic integrity requirements in your courses online—if you are not sure about the expectations surrounding academic integrity, please ask!

Here are some examples of academic fraud: • Plagiarism or cheating of any kind; • Present research data that has been falsified; • Submit a work for which you are not the author, in whole or part; • Submit the same piece of work for more than one course without the written consent of the professors concerned. • Please consult this webpage: it contains regulations and tools to help you avoid plagiarism and maintain academic integrity

An individual who commits or attempts to commit academic fraud, or who is an accomplice, will be penalized. Here are some examples of possible sanctions: • Receive an "F" for the work or in the course in question; • Imposition of additional requirements (from 3 to 30 credits) to the program of study; • Suspension or expulsion from the Faculty. • You can refer to the regulations on this webpage.

ANY INCIDENT OF SUCH KIND WILL BE REPORTED TO THE FACULTY WITHOUT EXCEPTION!

ACADEMIC ACCOMMODATIONS SERVICE: —For students who need adaptive measures— Students who have a disability or functional limitation and who need adaptive measures (changes to the physical setting, arrangements for exams, learning strategies, adaptive technologies, etc.) to progress or participate fully in university life should contact SASS Academic Accommodations *immediately*[1] by:

[1] Please note, there is a deadline for requesting these services

- logging into the Academic Accommodations Portal (Ventus) and completing the intake form
- by email at adapt@uottawa.ca or by calling the Academic Accommodations office at 613-562-5976

The Academic Accommodations Service offers services and implements measures to break down barriers to learning for students with physical or mental health issues, visual impairments or blindness, hearing impairments or deafness, permanent or temporary disabilities, or learning disabilities.

NOTICE OF COLLECTION OF PERSONAL INFORMATION — RESPONDUS

In accordance with the Ontario Freedom of Information and Protection of Privacy Act ("FIPPA") and with the University of Ottawa (the "University") Policy 90, your personal information is collected under the authority of the University of Ottawa Act, 1965.

Your personal information collected for remote proctoring will be used by the University for the purposes of and those consistent with the fulfillment of the course learning activities, administering online exams and maintaining the academic integrity of the exam process. After each evaluation, the personal information collected during the remote proctoring session will be reviewed by your instructor (or their designate) for the purposes stated above. The personal information collected may be used where academic fraud is alleged as described in Academic regulation I-14 - Academic fraud.

The remote proctoring is supported by Respondus, an online proctoring tool integrated with and accessed through Brightspace. LockDown Browser is a customized browser that locks the testing environment and Respondus Monitor is a companion service for LockDown Browser that uses webcam technology to maintain the integrity of online evaluations. Consult the Respondus Privacy Policy and Terms of Use - LockDown Browser or Terms of Use - Respondus Monitor for information on how Respondus collects, uses and discloses information and its security measures for safeguarding the information maintained by it. The personal information may be stored outside Canada and subject to the laws of the jurisdiction where it is stored. The information collected in accordance with this notice will be retained for one year from the end of the semester.

If you have questions about the collection, use and disclosure of your personal information in this notice, please contact your instructor. Questions of a general nature regarding the collection, use and disclosure of information should be addressed to the Chief Privacy Officer by email at aipo@uottawa.ca.

Using LockDown Browser and a Webcam for Online Exams

This course requires the use of LockDown Browser and a webcam for online exams. The webcam can be built into your computer or can be the type that plugs in with a USB cable. Watch this short video to get a basic understanding of LockDown Browser and the webcam feature. Then download and install LockDown Browser.

Taking the Exam

When taking an online exam that requires LockDown Browser and a web cam, remember the following guidelines:

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach.
- Clear your desk of all external materials not permitted — books, papers, other devices.
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.