

MATH 200

# FUNDAMENTAL CONCEPTS OF ALGEBRA

## MATH 200 Fundamental Concepts of Algebra Section EC Fall 2018

This syllabus is subject to change and any changes will be posted in the Announcements section of your eConcordia portal.

**Disclaimer:** In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

### About the Course

#### *About the Course*

This is a course offered by the Department of Mathematics and Statistics.

It is intended to give students an introduction to the fundamentals of algebra.

*NOTE: Students who have received credit or exemption for a course at the level of MATH 201 or above may not take this course for credit.*

*NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.*

#### *Instructor and Teaching Assistants (TA)*

**Instructor:** Hadas Brandes

**Instructor Contact Information:** math200@econcordia.com

This email address allows you to contact the instructor directly if you have any questions or concerns about the general nature of the course, or if there is a delay in hearing back from your TA.

**Teaching Assistant (TA) Contact Information:** available on your eConcordia home page.

Due to the large number of students enrolled in this course, you will be assigned a Teaching Assistant (TA). Their contact info (email address) will be posted on your eConcordia homepage.

Your TA is your first point of contact for discussing the mathematical content of the course. Questions about the content of the lessons should be posted in the appropriate folder on the Discussion Board (see **Discussion Board** below). **Questions about the quizzes and midterm should be sent to your TA by email.**

**DO NOT POST QUESTIONS ABOUT THE QUIZZES OR MIDTERM TEST ON THE DISCUSSION BOARD.** Doing so is considered cheating and a violation of the University's Academic Code of Conduct (see **Important Information – Academic Integrity** below). Students who share information about quizzes or the midterm on the discussion board – or by any other means – may be subject to academic discipline.

Allow for a 24 hour response time during the week (Monday-Friday). Teaching Assistants check their messages once over the 48 hour weekend period and are not available on statutory or university holidays.

Include your full name and student ID in email messages to the instructor or TA. This will enable us to easily identify you on the class list and grade sheet and promptly reply to your questions.

### ***Course Description***

This course teaches the fundamental concepts of algebra including: performing arithmetic operations with algebraic expressions, simplifying algebraic expressions, factoring algebraic expressions, solving linear and quadratic equations, solving linear inequalities, graphing equations in two variables, solving systems of linear equations in two variables, simplifying rational expressions, and solving rational equations.

### ***Course Material***

There is no Moodle page for this course. The entire course content is available only on eConcordia.

The course is made up of 12 lessons which can all be found by clicking on the **Course Website** link on the eConcordia home page. Lesson 13 contains videos on remedial material, and will not be covered on the final exam.

Each lesson contains lecture videos (one for each topic of the course) that are meant to simulate a class lecture. There are also videos that show you how to solve additional example problems. The videos cannot be downloaded or viewed offline.

At the end of each lesson there is a 10-question self-assessment for you to practice that lesson's content. The self-assessments can be attempted as often as necessary. Detailed solutions are provided for every question.

Additional practice problems and external resources for each lesson will be posted on the Discussion Board regularly throughout the term.

The lessons conclude with a 10-question quiz which can only be attempted once. The quizzes count towards your final grade. More details are provided below (see **Assessments** below).

### ***Textbook***

There is no required textbook for this course. Suggested reading material and additional resources will be posted in the Announcements and on the Discussion Board throughout the term.

## ***Access to the Course Website***

Your eConcordia account will be valid until the end of the term for which you are registered. Your account will allow you to access the online course material, which includes videos, self-assessments the discussion board, all graded assessments, useful links, readings and additional resources from the course website for the duration of the term.

## ***Announcements***

The Announcements section of the course website is our means of communicating important changes and updates to you on a regular basis. Please ensure that you keep up to date by reading the postings on a weekly basis. The announcements are found right in the centre of your eConcordia homepage.

## ***Discussion Board***

Questions about specific course content should be posted in the appropriate lesson folder on the discussion board, which is accessible from the **Discussion Board** link on your eConcordia homepage.

Posting on the discussion board is like raising your hand in class. You can ask for clarification or guidance on solving a problem. The TA's are responsible for answering your questions; the instructor will monitor and moderate discussions.

Students are welcome and encouraged to answer their classmates' questions as well.

**DO NOT POST QUESTIONS FROM THE QUIZZES OR MIDTERM TEST ON THE DISCUSSION BOARD.** Doing so is considered cheating and a violation of the University's Academic Code of Conduct (see **Important Information – Academic Integrity** below). Students who share information about quizzes or the midterm on the discussion board – or by any other means – may be subject to academic discipline.

**DO NOT POST YOUR STUDENT ID ON THE DISCUSSION BOARD.**

## **Assessments**

### ***Breakdown of Marks***

**Quizzes** (online, one for each of the 12 lessons)

Can be done at any time\*, but can only be attempted **once**

Only the **best 10 out of 12** quizzes will count towards your final grade 10%

**Midterm** (online, covering Lessons 1 - 5) 20%

**Final Exam** (on campus; will cover Lessons 1 - 12)

Date, time and location will be posted in your **MyConcordia portal** 70%

\* see **Description of Graded Assessments – Quizzes for exceptions**

## **Description of Graded Assessments**

### **Quizzes**

Each lesson's quiz will contain 10 questions randomly selected from a question bank with different levels of difficulty (equally chosen from easy, medium, and challenging questions). The questions will either be multiple-choice, or "fill-in-the-blanks". The multiple choice questions may have more than one correct answer.

Before you start each quiz, you will be shown a page containing the instructions. Read them carefully. These instructions include the following important points:

- (1) If you want to skip (or postpone) answering a question, you can either:
  - (a) Enter a blank answer and press "submit" (you will then be asked if you want to postpone the question), or
  - (b) Use the drop-down menu in the top left corner of the window to select any question that you'd like
- (2) You can only **review each quiz once** after you have finished writing it. When you close the quiz window, you will no longer be allowed to review the quiz. So if you want to review any questions later, write them down before exiting the quiz.

When you finish each quiz, print the results to confirm your grade.

Only the results of your **best 10 of the 12** quizzes will count toward your final grade.

**There will be no accepted reason for missing a quiz.** For example, if you were sick or if your computer crashed - that will be considered one of the two quizzes that will not be counted toward your final grade. So complete *every* quiz! A doctor's note will not be considered as a reason for missing a quiz because the two lowest of them will not be counted anyway.

Access to the quizzes for **lessons 1 through 5** will be open from the beginning of the term, and will **close at 11:59 pm on Wednesday October 24 (the day before the Midterm)**.

Access to the quizzes for **lessons 6 through 12** will only be **open after the Midterm**, and will **close at 11:59 pm on Monday December 3 (the last day of class)**.

**DO NOT TAKE THE QUIZZES ON A MOBILE DEVICE (cell phone or tablet).** Use a computer or laptop (see **Important Information – Technical Requirements** below).

### **Midterm**

The midterm will contain 10 multiple-choice questions on the content of lessons 1 to 5 only. The questions may have more than one correct answer.

The midterm is accessible any time between 12:01 am and 11:59 pm on **Thursday October 25, 2018**. Once you begin, you must complete the midterm in **1 hour and 30 minutes**, regardless of what time you start. If you leave or close the website before completing the midterm you will not be able to reactivate the exam and will receive a grade of zero. Do not refresh your web browser or log out of the website at any time during the midterm.

A timer will begin to count down. Once activated, you will have to complete the exam in the allotted time.

When you finish the midterm, print the results to confirm your grade.

Only a medical note clearly stating the reason for absence may be accepted as an excuse for missing the midterm. In such a case, the final exam will count for 90% of the final grade.

**DO NOT TAKE THE MIDTERM ON A MOBILE DEVICE (cell phone or tablet).** Use a computer or laptop (see **Important Information – Technical Requirements** below).

### **Final Exam**

The final exam is written on campus with pencil or pen, not online.

**To pass this course, you need to receive at least 50% on the final exam.**

The date and time of the final exam is announced by the University on the MyConcordia portal, typically by mid-October. Please note that **travel conflicts are never accommodated** so it is strongly advised that you **wait to make any travel plans** until the date and time of the final exam are released.

You must bring your student ID card to enter the final exam room.

**Memory aids and cheat sheets are not permitted for any 200-level mathematics course.**

Only calculators approved by the Mathematics Department (with a sticker attached as a proof of approval), such as the **Sharp EL 531** or the **Casio FX 300MS** (available at the Concordia Bookstore) will be permitted for the final examination. If your calculator does not have the "**ENCS**" sticker on it, it will be taken away from you during the final exam.

For the complete list of approved calculators, the list of non-approved calculators, and to find out how to get a sticker for your calculator, read the information at the following link: <http://www.concordia.ca/artsci/math-stats/services.html#calculators>

### **Grades**

It is your responsibility to ensure your quiz results have been properly captured by eConcordia, and to contact the instructor via e-mail for clarification if you have any questions concerning your grades.

You must print your quiz and midterm results to confirm your grades.

Your final letter grade for the course will be posted in your MyConcordia Portal at the end of the term.

### **Grade Distribution**

<b>Letter Grade</b>	<b>Percentage (%)</b>	<b>Letter Grade</b>	<b>Percentage (%)</b>
A+	90 to 100	C	64 to 66
A	85 to 89	C-	60 to 63
A-	80 to 84	D+	57 to 59
B+	77 to 79	D	54 to 56
B	74 to 76	D-	50 to 53
B-	70 to 73	F	Less than 50
C+	67 to 69		

## **Technical Help and Support**

### *eConcordia HelpDesk*

If you experience any technical problems with the website (including videos not playing, quiz or midterm questions not loading properly, etc.) contact the **eConcordia HelpDesk** immediately:

**E-mail:** [helpdesk@econcordia.com](mailto:helpdesk@econcordia.com)

**Phone:** (514) 848-8770, open Monday to Friday from 9:00 am to 5:00 pm Eastern time.

The necessary technical requirements to ensure that the course website works properly can be found here: [Technical Requirements](#). The recommend web browsers are Google Chrome and Mozilla Firefox on PC, and Safari and Google Chrome on Mac devices. An up-to-date Adobe Flash Player is also necessary.

**DO NOT USE A MOBILE DEVICE (CELL PHONE OR TABLET) FOR THE QUIZZES OR MIDTERM.**

## **Important Information**

### *Useful links*

<b>Topic</b>	<b>Link</b>
Academic Integrity	<a href="#">Academic Integrity</a>
Academic Integrity Quiz	<a href="#">How to take the quiz</a>
Access Centre for Students with Disabilities	<a href="#">ACSD</a>
Concordia Library Citation & Style Guides	<a href="#">Citing - Help &amp; How-to</a>
Course Communication Tools	<a href="#">Communication</a>
eConcordia Policies	<a href="#">Policies</a>
Final Exams Information	<a href="#">Final Exams</a>
Helpdesk/Support	<a href="#">FAQ</a>
Refunds	<a href="#">Refunds</a>
Technical Requirements	<a href="#">Technical Requirements</a>
Tips for Studying Online	<a href="#">Studying Tips</a>

### *Calculators*

Only calculators approved by the Mathematics Department (with a sticker attached as a proof of approval), such as the **Sharp EL 531** or the **Casio FX 300MS** (available at the Concordia Bookstore) will be permitted for the final examination. If your calculator does not have the "**ENCS**" sticker on it, it will be taken away from you during the final exam.

For the complete list of approved calculators, the list of non-approved calculators, and to find out how to get a sticker for your calculator, read the information at the following link: <http://www.concordia.ca/artsci/math-stats/services.html#calculators>

### ***Math Help Center and suggestions for additional help***

The Department of Mathematics and Statistics has a free Math Help Center for students enrolled in MATH 200 where you can ask a tutor there for one-on-one help. The tutors at the Math Help Center are graduate students in mathematics who will sit with you and help you with particular questions, explain things to you, and give you hints/insight.

The Math Help Center is located on the 9th Floor of the Library Building on the Downtown Campus, where the Math Department is located. The Math Help Center opens during the third week of the term, and the hours for the Fall 2018 semester are posted [here](#) on the Math Department's website.

There is also the Success Centre, where Concordia offers one-on-one free tutoring for MATH 200. To see how it works, visit <http://www.concordia.ca/students/success/learning-support/math-engineering-help.html>. Appointment with a mathematics tutor can be booked through your MyConcordia portal.

The Mathematics Department at Concordia also has a list of available private tutors. You can find it on a shelf in the lobby of the math department (9th floor of the Library Building downtown). You may also contact Rima Baroudi, the Undergraduate Program Assistant by email at: [ugrad.mathstat@concordia.ca](mailto:ugrad.mathstat@concordia.ca).

# MATH 200 - Fundamental Concepts of Algebra

## Agenda

### Fall 2018

All deadlines indicated are on the due date listed by 11:59 p.m. unless otherwise indicated.

<b>Week 1: September 3 – September 9</b>	
<b>September 04</b>	First day of classes
	Read Course Outline
	Watch "INTRODUCTION VIDEO" on Course Website
	Lesson 13: Remedial Lessons (if necessary)
	Lesson 1: Fundamental Operations with Algebraic Expressions
<b>September 05</b>	Discussion Board opens at 2 PM
<b>Week 2: September 10 – September 16</b>	
	Lesson 1: Fundamental Operations with Algebraic Expressions (Continued)
<b>September 17</b>	Last day to add or swap courses in this term
<b>September 17</b>	DNE Date: Academic withdrawal deadline (with tuition refund)
<b>Week 3: September 17 - September 23</b>	
	Lesson 2: Linear Equations
<b>Week 4: September 24 - September 30</b>	
	Lesson 3: Formulae and Linear Equations in Two Variables
<b>Week 5: October 1 – October 7</b>	
	Lesson 4: Graphing Linear Equations in Two Variables
<b>Week 6: October 8 - October 14</b>	
<b>October 8</b>	Thanksgiving Day – University closed
	Lesson 5: Linear Inequalities
<b>Week 7: October 15 – October 21</b>	
	Lesson 6: Systems of Linear Equations
<b>October 17</b>	Midterm tutorial session on Adobe Connect
<b>Week 8: October 22 – October 28</b>	
	Lesson 7: Percentages, Ratios and Other Problems



<b>October 24</b>	Quizzes for lessons 1 through 5 CLOSE at 11:59 pm
<b>October 25</b>	<b>Midterm exam – Open from 12:01 am until 11:59 pm</b> Discussion Board closed all day
<b>October 26</b>	Quizzes for lessons 6 through 12 OPEN at 12:01 am
<b>Week 9: October 29 – November 4</b>	
	Lesson 8: Factoring Algebraic Expressions
<b>Week 10: November 5 – November 11</b>	
<b>November 05</b>	DISC Date: Academic withdrawal (without tuition refund)
	Lesson 9: Exponents and Radicals
<b>Week 11: November 12 - November 18</b>	
	Lesson 10: Quadratic Equations
<b>Week 12: November 19 - November 25</b>	
<b>November 19</b>	Past finals will be posted on the discussion board
	Lesson 11: Rational Expressions
<b>Week 13: November 26 – December 2</b>	
	Lesson 12: Rational Equations
<b>Week 14: December 3 – December 9</b>	
	Review course material
<b>December 03</b>	Last day of classes Final exam tutorial session on Adobe Connect Quizzes for lessons 6 through 12 CLOSE at 11:59 pm
<b>Examination Period: December 5 – December 19</b>	
	<b>Final Exam date, time, and location is posted on your MyConcordia Portal</b>