

MATH 206
Algebra & Functions
Winter 2015

Instructor*: _____

Office/Tel No.: _____

Office Hours: _____

*Students should get the above information from their instructor during class time. The instructor is the person to contact should there be any questions about the course.

Course Examiner: Dr. D. Sen

Text: *College Algebra*, 9th Edition, by Michael Sullivan, Pearson/Prentice Hall, with *Student Solutions Manual*.

Note: It is recommended to Psychology students as preparation for their statistics courses. Math 200 or some previous exposure to Algebra is assumed in this course. For this reason a placement test to help you determine if you are ready for Math 206 is included at the end of this outline. Please take it seriously and consult your instructor or an academic advisor if in doubt.

Math Help Centre: It has been organized to help students in solving problems. The location is LB 912 and the schedule is posted in the Department.

Assignments: Assignments are given every week. Students are expected to submit electronic assignments through **MyMathLab**. There is not enough class time to do all examples needed for a good understanding of the material, and so students are strongly encouraged to do as many problems on their own as their time permits. The suggested supplementary (all odd numbered) problems included in this outline for each lecture are specially selected to complement the assignments. In addition, a solutions manual for all odd-numbered questions is packaged with the text to provide quick and through feedback.

MyMathLab: Every student who buys a book will receive an access code to an online system called **MyMathLab**. Access codes can also be purchased at the Concordia book store. The system provides you with a full electronic version of the text (an eBook) as well as many exercises and practice problems. Students will use this system to do online assignments. However, students are strongly encouraged to use this

resource to help with problems similar to the assignment problems, and in areas where they need extra assistance.

Calculators: Only calculators approved by the Department (with a sticker attached as proof of approval) are permitted in the class test and final examination. The preferred calculators are the **Sharp EL 531** and the **Casio FX 300 MS**, available at the Concordia Bookstore.

Test: One common midterm test will be held on **Sunday, March 8, 2015 at 2:00 P.M.** Students who could not make it that day for a valid reason, e.g. religious or illness (*doctor's note required*), can write an alternate midterm on **Saturday, March 14, 2015 at 10:00 A.M.** Otherwise, missed test cannot be made up. **Midterm test will cover until week 7 inclusively.**

NOTE: It is the Department's policy that tests missed for any reason, including illness, cannot be made up. If you miss both the midterm and alternate test because of illness (to be confirmed by a valid medical note), the final exam can count for 90% of your final grade.

Final Exam: There is no exemptions from this three-hour exam.

Final Grade: The final grade will be based on the higher of **(a) or (b):**
 (a) 10% for the assignments, 20% for the midterm test, and 70% for the final exam.
 (b) 10% for the assignments, 10% for the midterm test, and 80% for the final exam.

IMPORTANT: PLEASE NOTE THAT THERE IS NO "100% FINAL EXAM" OPTION IN THIS COURSE.

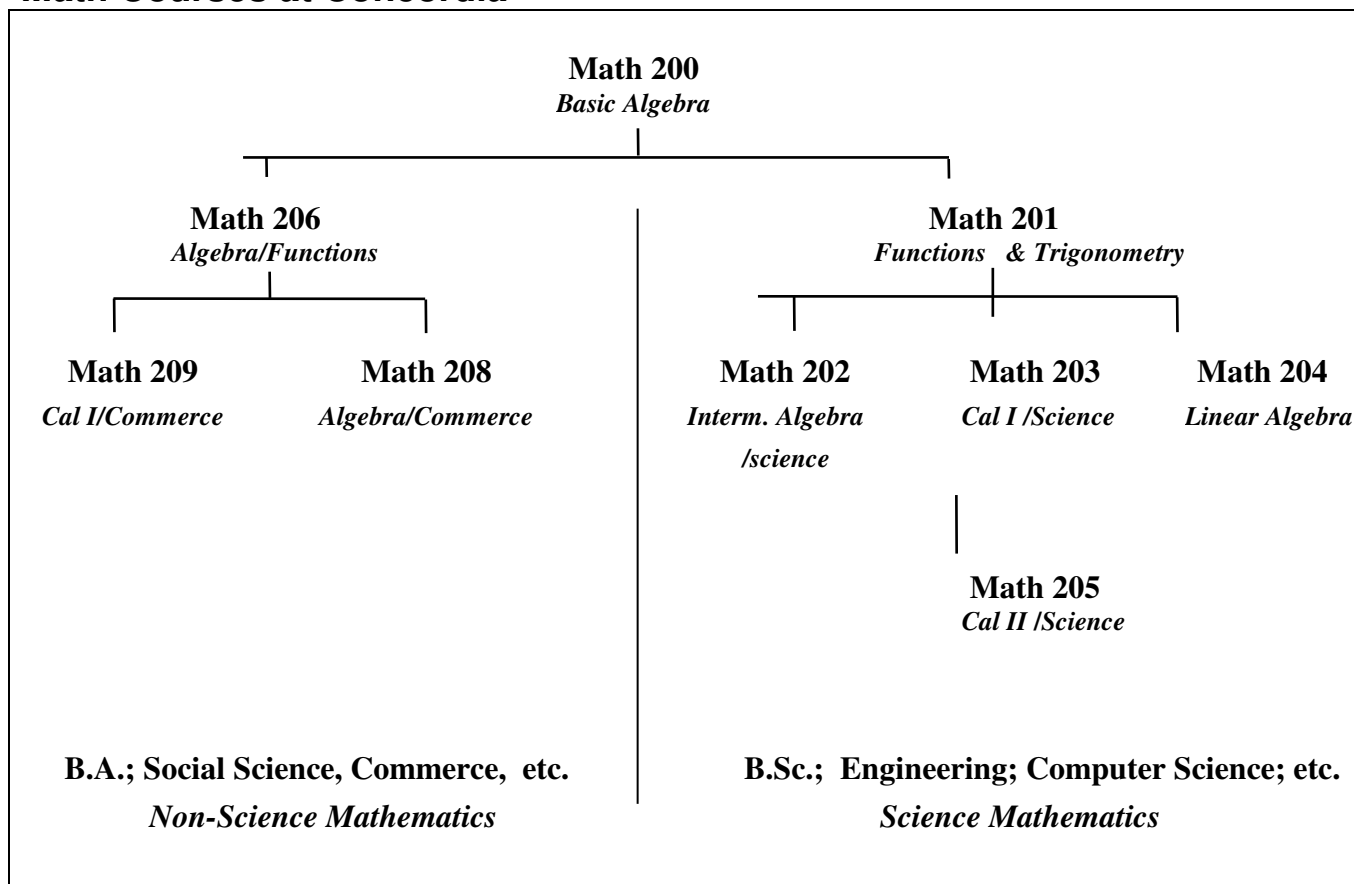
Weeks	Sections	Supplementary Problems
1	R4 Polynomials R5 Factoring Polynomials R6 Synthetic Division R7 Algebraic Expressions	27, 33, 37, 49, 57, 61, 71, 73, 75, 87, 95, 99 17, 19, 27, 29, 35, 41, 49, 53, 71, 75, 83, 91, 95 5, 9, 19, 23 7, 9, 13, 19, 27, 39, 49, 65, 69
2	R8 n^{th} Roots, Rational Exponents 1.1 Linear Equations 1.2 Quadratic Equations 1.4 Radical Equations, Equation Quadratic in Form; Factorable Equations	9, 15, 18, 29, 31, 45, 48, 49, 59, 69 17, 19, 25, 29, 37, 41, 47, 77, 81 9, 17, 33, 36, 37, 42, 43, 49, 55, 65, 79, 89 8, 11, 17, 21, 33, 41, 45, 49, 55, 65, 73, 77
3	1.5 Solving Inequalities 1.6 Equations and Inequalities involving Absolute Value 1.7 Problem Solving	55, 57, 61, 63, 69, 81, 99 7, 11, 25, 29, 35, 37, 41, 47 23, 25, 31, 34, 35, 45
4	2.1 Distance and Midpoint 2.2 Graphs of Equations, Intercepts, Symmetry 2.3 Lines 2.4 Circles	21, 24, 31, 37, 40, 57 17, 23, 25, 41, 43, 45, 51, 53, 56, 61, 64 15, 21, 25, 39, 41, 49, 52, 62, 72, 78 14, 17, 22, 25, 29, 35, 39

5	3.1 3.2	Functions Graphs of Function	27, 29, 31, 37, 47, 54, 57, 63, 70, 87, 89, 93 14, 23, 27, 35
6	3.3 3.4 3.5 3.6	Even and Odd Functions Library of Functions Graphing Techniques, Transformations Mathematical Models	33, 34, 39, 41, 42 18, 19, 21, 23 19, 21, 23, 25, 29, 53, 59 5, 10, 13, 23
7	4.1 4.3 4.4 4.5	Linear Functions Quadratic Functions Quadratic Models Inequalities involving Quadratic Functions	29, 31, 39, 49 19, 21, 37, 41, 44 8, 9, 14, 17 3, 6, 7, 11, 15, 21, 25
8	5.1 5.2 5.3 5.4	Polynomial Functions Properties of Rational Functions Graph of Rational Function Polynomial and Rational Inequalities	17, 19, 21, 25, 27 11, 14, 21, 27, 29, 37, 42, 44, 47 7, 10, 17, 20 3, 6, 8, 13, 18, 22, 24, 26, 31
9	6.1 6.2	Composite Functions One-to-One and Inverse Functions	14, 15, 17, 23, 25, 31, 39 33, 35, 50, 51, 59, 61, 65, 75, 90
10	6.3 6.4 6.5	Exponential Functions Logarithmic Functions Properties of Logarithms	13, 17, 19, 38, 41, 51, 53, 60, 62, 64, 66, 75, 77 10, 13, 19, 23, 27, 29, 31, 37, 43, 46, 77, 82, 91, 93, 97, 101, 103, 111, 119, 133 7, 10, 14, 15, 19, 31, 33, 36, 39, 41, 53, 55, 62, 81, 83, 87
11	6.6 6.7 6.8	Logarithmic and Exponential Equations Compound Interest Exponential Growth and Decay Models	6, 8, 25, 27, 33, 37, 42, 47, 51, 55 5, 7, 13, 16, 21, 25, 32, 36, 39, 41, 46, 50 2, 4, 7, 9, 11
12	8.1 8.6	Systems of Linear Equations Systems of Non-Linear Equations	17, 20, 21, 23, 26, 30, 32, 37, 55, 58, 62 5, 9, 16, 26, 34, 41, 46, 71, 73, 87
13	Review		

Choosing Between Math 200 and Math 206

If the last math course you took was at the high school level (Quebec), and more than five years have passed since, you should probably register for Math 200. If you are still unsure of your level, read on.

Math Courses at Concordia



A self-administered test to help you decide between Math 200 and Math 206, follows. Give yourself about 20 or 30 minutes to complete the test. Be honest with yourself, since registering in the wrong course may cost you money and result in a poor grade. Remember that all university level courses usually demand quite a bit of your time. Students in Math 206 will find they will not have time once the course begins to review material that they are expected to know before they enter the course.

Dropping a course: If you find yourself "out of your depth" and decide to drop the course, you must drop the course on your myconcordia portal at www.myconcordia.ca before the published deadline. *If you just stop going to class without formally discontinuing the course you will receive an F grade for the course.*

Help: The Math Department runs a drop-in **Math Help Centre** in **LB 912** - call the Department's office for further information at 848-2424, Ext. 3222/3223 or visit www.mathstat.concordia.ca. Counseling and Development runs math skills workshops, 2 or 3 times a week - call the Counseling and Development's office for further information at 848-2424, Ext. 3555/3556 or visit cdev.concordia.ca

