

McQuaid Jesuit High School

Summer Algebra

Course Description And Syllabus

***March 1st, 2021 update**

Mr. Daniel Brady
Summer 2021

“face-to-face” ! Summer Algebra”

(With mask)!

This course will satisfy an Algebra 1 course, and we will be meeting at McQuaid Jesuit as outlined below.

- Please note 1 week “off” (July 26th through July 30th) and also July 2nd (Friday) and July 5th (Monday) we will have “off”.

SUMMER ALGEBRA

Course Description

Summer Algebra begins a three- to four-year sequential study of college preparatory mathematics. Students will develop the ability to solve a variety of problems logically and critically. Some of the topics that will be addressed include but are not limited to: introduction to algebra; working with real numbers and polynomials including factoring; solving equations and word problems; applications of fractions; introduction to functions; systems of linear equations; inequalities; rational and irrational numbers; quadratic functions; and graphing. (1 High School credit).

Notes / Worksheets / Textbook

Students will need a notebook. They will also need a folder to keep various worksheets in. The folder and notebook can be separate or part of a combination folder with “side pockets”!

We will use the textbook quite often; both in class and for homework. My syllabus has M A N Y pages and problems listed. We will NOT be doing all of them! Nor will all of them be “required”! What they do represent is a roadmap and a guide to allow the student to reinforce material on his own, beyond that which we will do “in class”.

The back of the textbook we will be using ALSO has an excellent resource (beginning on page 639) of additional problems, organized by Chapter. They are listed as “Extra Practice: Skills”.

- Textbooks will be provided

Grading:

Three Exams: 40 % **Dates:** July 1st (Chapters 1 through 5), July 16th (through 9) & August 4th (through 12).

We will dedicate the entire day to practice before taking these EXAMS.

QUIZZES: 30% Given in the Morning each day initially; may change to every other day.

FINAL EXAM: 20 % August 6th (Friday)

Homework / CP&C: 10 %
(Class Participation & Character)

Attendance

Attendance is vital to success in this class.

If you miss more than 25% of the scheduled class time, an INCOMPLETE grade will be provided, and we can discuss alternative arrangements (and fees) to complete the course.

Academic Integrity

I expect all students to be familiar with and abide by the Academic Honesty Code. Cheating will negatively affect your grade, and action will be taken as necessary according to McQuaid Jesuit procedures. In this on-line environment, the concept of SHOWING your work becomes magnified!

Location/dates and times Logistics

Please note the schedule below includes a week off the week of July 26th through July 30th AND July 2nd (Friday) and July 5th (Monday) are off days.

5 days	June 21 st – 25 th	830AM – Noon	15 hours
4 days	June 28 th – July 1 st	830AM – Noon	12 hours
4 days:	July 6 th – July 9 th	830AM – Noon	12 hours
5 days:	July 12 th – July 16 th	830AM – Noon	15 hours
5 days:	July 19 th – July 23 rd	830AM - Noon	15 hours
4 days:	August 2 – August 5 th	830AM – Noon	12 hours

Final Exam: Friday, August 6th : 9AM – 11AM Total hours: 81 hours before Final Exam

Homework / Classwork

- Please READ section above entitled “Notes / Worksheets / Textbook”

The Syllabus will list MANY homework assignments. These are meant to provide the student a GUIDE. That is, the student will know what material was covered and can use the textbook and the listed homework for catch-up on that material.

We will work on problems in class quite a bit. Much of the material below is for reinforcement purposes.

SUMMER ALGEBRA

Course information

Instructor: Mr. Daniel Brady

E-mail: dbrady@mcquaid.org

Text: Algebra, Structure and Method * Book 1 McDougal Littell Inc.

(This is the only required text, and will be provided).

- I will ALSO use, and provide to the students, supplementary material throughout the course.

Additional Materials required: Pencils, a Notebook, and a VERY BASIC Calculator (no graphing calculator allowed; the correct one does NOT need sin, cos, and tan, but you may find one with these on it and that is ok).

PLEASE NOTE: The HW listed is NOT intended to tell students to ALL of these problems. An approach of doing “EFO” (every fifth one) should work, unless a student needs more practice on a certain section.

SCHEDULE OF CLASSES, TOPICS and Materials COVERED

Date	Day	Topic	HW
6/21 M	1	Review Syllabus CH. 1 Material “Introduction to Algebra”	1)Page 17 #1 thru 26 2)Page 20 #1 thru 22 3)Page 24 #1 thru 18 4)Page 28 #1 thru 15 5)Page 33 #1 thru 14 6)Page 38 #1 thru 38 7)Page 41 & 42 Reviews
6/22 T	2	Finish Chapter 1 Begin Chapter 2 Material “REAL Numbers”	1)Page 47 #1 thru 28 2)Page 52 #1 thru 38 3)Page 56 #7 thru 43 4)Page 61 #1 thru 60 5)Page 68 #49 thru 71 6)Page 72 #1 thru 56 7)Page 77 #1 thru 16 8)Page 81 #1 thru 34 9)Page 85 #1 thru 33 Page 89 & 90 & 91 Reviews
6/23 W	3	Review 1, 2 and begin Chapter 3 Material “Solving Equations AND Problems” Introduction to “Solving Variable Equations”	1)Page 97 #1 thru 50 2)Page 104 #1 thru 44 3)Page 109 #1 thru 55 4)Page 113 #1 thru 33 5)Page 118 #1 thru 48 AND 6) #'s 1 thru 18 (Problems) 7) Page 122 #'s 1 thru 19 8) Page 127 #'s 1 thru 16 Page 135 thru 139 Reviews
6/24 Th	4	Review Chapters 1 through 3	Above
6/25 F	5	Begin Chapter 4 “Polynomials” - through 4.6	1)Page 144 #'s 24 thru 39 2)Page 148 #'s 1 thru 56 3)Page 150 #'s 5 thru 14 4)Page 153 #'s 1 thru 34 5)Page 157 #'s 5 thru 38 6)Page 159 #'s 1 thru 20 7)Page 159 #'s 27 – 34 8)Page 163 #'s 9 thru 26 9)Page 163 #'s 29 – 42 Page 164: Self-Test 2 Review

6/28 M	6	Finish Chapter 4 / Word Problems / Review Chapters 1 through 4	Above + 1) Page 166 #'s 1 thru 29 2) WORD Problem handouts
6/29 T	7	Begin Chapter 5 "Factoring"	1)Page 187 #'s 21 thru 46 2)Page 192 #'s 1 thru 38 3)Page 196 #'s 1 thru 50 4)Page 201 #'s 1 thru 21 5)Page 206 #'s 1 thru 52 6)Page 210 #'s 1 thru 42 7)Page 215 #'s 1 thru 30 8)Page 218 #'s 1 thru 28 9)Page 222 #'s 1 thru 36 10)Page 225 #'s 1 thru 20 11)Page 228 #'s 1 thru 20 12)Page 232 #'s 1 thru 42 13)Page 235 #'s 1 thru 16 14) Page 240 thru 245 Reviews
6/30 W	8	Finish Chapter 5	Above
7/1 Th	9	Exam 1: Chapters 1 through 5	Above
7/6 T	10	Begin Chapter 6	1)Page 248 #'s 1 thru 38 2)Page 253 #'s 1 thru 44 3)Page 256 #'s 1 thru 42 4)Page 261 #'s 1 thru 44 5)Page 267 #'s 1 thru 30 6)Page 271 #'s 1 thru 38 7)Page 276 #'s 1 thru 30 PAGE 280 – 284 Reviews
7/7 W	11	More Chapter 6 Begin Chapter 7	1)Page 289 #'s 1 thru 26 2)Page 295 #'s 1 thru 36 3)Page 299 #'s 1 thru 18 4)Page 305 #'s 1 thru 32 5)Page 312 #'s 1 thru 32 6)Page 322 ORAL #'s 1–8 7)Page 333 #'s 1 thru 28 8)Page 333 #'s 35 – 58 9)Page 339 #'s 15-22 a) PAGE 342 thru 347 Reviews
7/8 Th	12	More Chapter 7	Above
7/9 F	13	Begin Chapter 8 "Introduction to Functions"	1)Page 351 #'s 1 thru 12 2)Page 357 #'s 1 thru 36 3)Page 363 #'s 1 thru 24 4)Page 368 #'s 1 thru 38 5)Page 372 #'s 1 thru 36 6)Page 380 #'s 1 thru 44 7)Page 386 #'s 1 thru 30 Page 405 – 409 Reviews

7/12 M	14	More Chapter 8	Above
7/13 T	15	More Chapter 8	Above
7/14 W	16	Review 1 through 8	Above
7/15 Th	17	Begin Chapter 9	1) Page 415 #'s 1 thru 18 2)Page 419 #'s 1 thru 24 3)Page 424 #'s 1 thru 10 4)Page 427 #'s 1 thru 12 5)Page 428 #'s 1 thru 8 6)Page 432 #'s 1 thru 9 7)Page 434 #'s 1 thru 28 8)Page 440 #'s 1 thru 16 PAGE 451- 455 Reviews
7/16 F	18	Exam 2 Chapters 1 through 9 (Emphasis on 6 through 9)	Above
7/19 M	19	Begin Chapter 10 "Inequalities" & Absolute Value	1)Page 459 #'s 1 thru 38 2)Page 466 #'s 1 thru 10 3)Page 469: READ Examples 1,2, and 3: 4)Page 473 #'s 1 thru 20 5)Page 480 #'s 5 thru 36 6)Page 485 #'s 13 – 39 7)Page 496 #'s 1 thru 18 PAGE 501 – 503 Reviews
7/20 T	20	Finish Chapter 10	See above from 7/20 (Chapter 10)
7/21 W	21	Begin Chapter 11 "Rational & Irrational Numbers" Through 11.4	1)Page 519 #'s 1 thru 20 2)Page 522 #'s 1 thru 38 3)Page 526 #'s 1 thru 50 4)Page 532 #'s 1 thru 20 5)Page 536 #'s 1 thru 12 6)Page 538 #'s 1 thru 46 7)Page 541 #'s 1 thru 32 8)Page 545 #'s 1 thru 22 9)page 548 #'s 1 thru 44
7/22 Th	22	More Chapter 11	See above
7/23 F	23	More Chapter 11	See above
08/02 M	24	Begin Chapter 12 "Quadratic Equations"	Below
8/03 T	25	Finish Chapter 12 Prep for Exam 3	1)Page 563 #'s 1 thru 4 2)Page 566 #'s 1 thru 27 3)Page 569 #'s 1 thru 28 4)Page 574 #'s 1 thru 18 5)Page 580 #'s 1 thru 14

8/04 W	26	<u>Exam 3</u> & Review for FINAL	See above
8/05 Th	27	Review for FINAL	Various / ALL !
8/06 F	28	FINAL EXAM	Various / ALL !

Regarding: “Home/Class WORK Assignments” in above Syllabus
From: Mr. Brady

- **Make sure to read through entire syllabus!**
- **Homework is designed to reinforce class material, and prepare you for the exams:**
 - 1) **The above problem sets are MORE than we will DO in class, and MORE than you will need to do “at home”. I would pick a few from each section and make sure you understand the concept, then move on to another problem set.**
 - 2) **That is, we will do a large portion of HW in class and you should then spend another 1 to 2 hours each night doing more.**