DVC – MATH 119 – SYLLABUS

"You can't direct the wind – but you can adjust the sails."

Course: Math 119 – Intermediate Algebra

Section: 2801

Term: Fall 2019

Time: MW 2:30 – 5:35

Room: Learning Center 206

Instructor: Mr. Narin

Class Website: **www.mathwithsteve.com**

My Email: **stevenarin314@gmail.com**

Section 2801

My course is based on a book (which you must purchase), with the bulk of the HW being assigned from the book, but not to be handed in. (See the Homework section below.) Note that we do NOT use a computer to do homework (like Aleks or WebAssign). And in order to motivate you to do your work on a regular basis, we will be having a quiz every day except test days and the first day of class.

Math 119SP **(Self-Paced)** is a computer-based course, with lots of tutoring available, where you proceed at your own pace (with some constraints), but most importantly, you may take a full <u>two semesters</u> to complete the course.

DVC Math Lab Hours – (Tentative Schedule)

Drop-in tutoring (15-minute sessions):

You can have as many sessions as you like,
provided you're willing to "wait in line."
Monday–Thursday: 8:00 am – 8:20 pm
Friday: 9:00 am – 1:00 pm

Group Tutoring for Math 119

Mon: 10–11:25, 1–2:25, 2–3, 5–6:25

Tue: 9:30–10:55, 2–3:25, 5–6:25

Wed: 11–12:25, 2–3:25, 5–6:25

Thu: 12:30–1:55, 3:30–4:55

Academic Proctoring Center – BFL-210 (for make-up tests)

When I have confirmed to you that a make-up test is ready for you, you just go to the Proctoring Center at your convenience, and allow up to 2.5 hours for the test. The last day make-ups can be taken is May 21.

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Mon:	9–12, 3:30–7:30	**(Tentative Schedule)**
Tue:	3:30–7:30	
Wed:	9–12, 3:30–7:30	
Thu:	3:30–7:30	
Fri:	11–3	

Required Materials

Text:

Math 119 at DVC – Vol I
Math 119 at DVC – Vol II
2019 Edition
Nate and Pearl Publishing

Do NOT buy anything from the bookstore. You will purchase Vol I from **Lulu.com** as soon as it's published, and Vol II after the class has begun. I'm predicting that the TOTAL cost (both volumes, tax, and shipping) will be about $50.

Lulu Link: Math 119 - Volume I [I'll let you know when it's ready.]

Calculator: You must bring a calculator to every class meeting. A simple scientific calculator will suffice – just look for the LOG button – TI recommended; it's about $13. Except for a few occasions, a calculator will NOT be allowed on quizzes or tests.
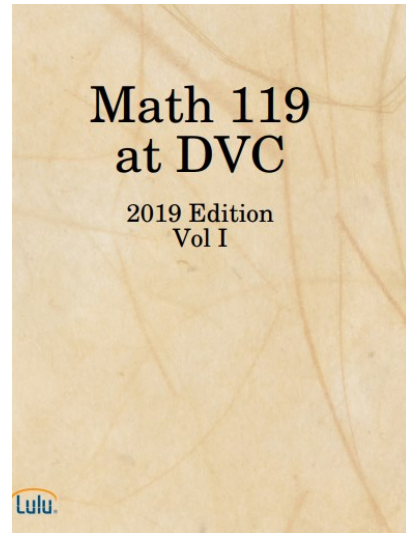
Email: As a DVC college student, you are required to check your school email account on a regular basis.

Homework

Homework will be assigned after each class meeting, sometimes in class, but usually in the Schedule at the class website. Although it will not be collected and is not part of your grade, you are nevertheless expected to do it, and I reserve the right to request to see your homework at any time. But don't sweat it: If it appears that you are being successful in the class – as indicated by attendance, punctuality, quizzes, tests, and class participation – I won't be nagging you to see your homework.

The problems I assign are designed to inform you as to what skills and concepts you are supposed to be gaining from this class. In other words, you need to do as much homework as you need to do in order to achieve the degree of success that you desire. This might mean you do just a few of each type of problem until you understand the concept well; it might mean you do most or all the problems. In short, it's up to you to discover the homework strategy that suits your personal learning style.

Grading Components

Tests   60%

There will be four major tests, the first three on Mondays, and the fourth on Wednesday (since it's the last day of the semester). Although there will be some multiple choice questions, the majority are "show your work" questions (with partial credit possible). Every test will have a couple of extra credit questions. No notes are allowed.

<u>One</u> of the first three tests can be made up once – anytime during the semester, even if passed (no penalty, but no extra credit). If you miss one of the first three tests, that will obviously be your one makeup, but it must be taken within two weeks of the day the test was returned to the class.

Quizzes   40%

A quiz will be given at the end of each class meeting (except for the four test days and the day we review for Test #4). The quizzes cover whatever was assigned as homework the previous class meeting. I am going to allow one 4" × 6" index card for notes for the Wednesday quizzes, but NOT for the Monday quizzes. These notes must be written by you (no Xerox copies of anything).

r lowest quizzes, but neither of the last two. There are NO m

Letter Grades

A – 90% and up   B – 80% to 89%   C – 70% to 79%

D – 60% to 69%   F – below 60%

Drop Policy

It is the student's responsibility to drop the course; however, I am mandated to drop any student who does not attend the first class meeting. I have the right to drop any student by the end of the fifth week of the semester if the student is not making adequate progress due to excessive absences or tardiness.

Live as if you were to die tomorrow.

Learn as if you were to live forever.

Mahatma Gandhi

Course Content and Student Learning Outcomes

<u>From the DVC Catalog:</u>

Recommended: Successful completion of a course equivalent to high school Algebra I or equivalent.

This course is a review of topics in Algebra. Topics include factoring polynomials, fractional equations, inequalities, logarithms, exponentials, and functions. This course is intended for students who have not successfully completed a course equivalent to high school Algebra II and who plan to take MATH-121 Plane Trigonometry or MATH-135 College Algebra.

<u>Course Outline for Math 119</u>

A. POLYNOMIALS

1. Addition, subtraction, multiplication, simple division
2. Long division
3. Factoring
   a. Common factors
   b. Grouping
   c. Trinomials
   d. Difference of two squares
   e. Cubic formulas
   f. Quadratic in form

B. EXPONENTS

1. Review of exponents including negative exponents
2. Rational exponents

C. INEQUALITIES

1. Graphing of inequalities with one and two variables
2. Review set and interval notations
3. Compound inequalities
4. Absolute value inequalities (optional)

D. LINEAR AND QUADRATIC EQUATIONS

1. Review of solving linear equations, including LCD's
2. Absolute value equations
    3. Solving quadratic equations
        a. Factoring
        b. Square root method
        c. Quadratic formula
        d. Completing the square
        e. Maximum and minimum applications of quadratics
4. Equations reducible to quadratic - NO quadratic formula
5. Solving formulas for variables

E. RATIONAL EXPRESSIONS

1. Simplifying
2. Addition, subtraction, multiplication, division
3. Complex fractions
4. Equations containing rational expressions
5. Applications involving rational equations

F. RADICALS

1. Review of simplifying square roots and square root operations
2. Simplifying radicals with higher order roots
3. Multiplying, adding, dividing radicals
4. Simplifying with rational exponents
5. Solving root equations, including those with more than one root
6. Cube root equations
7. Complex numbers as non-real solutions of quadratic equations
8. Rationalizing denominators with one and two roots

G. GRAPHING AND LINES

1. Review of graphing lines
2. Review of finding equations of lines [$y = mx + b$]
3. Distance formulas
4. Graphing linear functions
5. Graphing absolute value functions
6. Graphing quadratic functions, including vertex formula

H. FUNCTIONS

1. Definition of a function
2. Domain and range
   a. Definition
   b. Determining from ordered pair
   c. Determining from equation of a function
   d. Determining from graph of a function
3. Operations with functions
   a. Addition, subtraction, multiplication, division
   b. Introduction to Inverse functions
   c. Optional: Composition of functions
   d. Translating graphs of functions

I. Logarithmic and Exponential Expressions and Equations

1. Evaluating log expressions
2. Using natural logs
3. Converting between logs and exponents
4. Exponent property of logs (other properties of logs are optional)
5. Solving logarithmic equations involving the exponent property of logs
6. Solving exponential equations
7. Solving equations with exponent property of log (solving using other properties is optional)
8. Applications of exponents, logs, including compound interest

J. Variation

1. Direct, inverse, and joint

K. Study skills for mathematics

1. Note-taking
2. Test-taking
3. Mind-set and motivation

"Wisdom begins in wonder."

Socrates