

# DVC – MATH 135 – SYLLABUS



*“You can’t  
direct the wind –  
but you can adjust  
the sails.”*

*Course:* Math 135 – College Algebra

*Section:* 1182

*Term:* Spring 2019

*Time:* MW 2:30 – 4:35

*Room:* LA 112

*Instructor:* Mr. Narin

*Class Website:* [www.mathwithsteve.com](http://www.mathwithsteve.com)

*My Email:* [stevenarin314@gmail.com](mailto:stevenarin314@gmail.com)

## Section 1182

My course is based on a book, with the bulk of the HW being assigned from the book, but not to be handed in. Some HW will be from worksheets posted on the class website, and they might be collected. In addition, there's an Online Practice link on the class website, where you will practice some of the concepts that you'll see on quizzes and tests. 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, including the first day. The material for Quiz #1 on the first day of classes is located at the Schedule link on the class website.

Here's another component of the course that you should pay close attention to: In addition to the textbook material, I will also be presenting a business-oriented introduction to Calculus, a little bit each week. There will also be problem-solving questions, and will include issues from current events. Put simply: *Math 135 may be a 4-unit course, but be ready for at least 5 units of work.*

This class will require consistent attendance and participation – if you're the kind of student who likes to hide in the back corner of the room, this is not the class for you. I might call on you to answer a question about the lecture, or ask for your answer from homework or a worksheet. In addition, you must be willing to participate in small-group discussions, which can be meaningful only if you've attempted to complete the assigned homework.

Another feature of my College Algebra class is what some call “flipping the classroom.” This simply means you will be learning some of the material at home, on your own. This material might be from previous algebra courses, or it might be new stuff. If you're the kind of student who needs to be taught all of the material by the instructor, this is not the class for you.

## The Other Sections of Math 135

**Math 135 Standard** is the usual course taught at community colleges. There's no way I can describe the methods and policies of such a course because of the variety of approaches taken by instructors.

The following sections of Math 135 are open, as of 1/28/19:

<b>1180</b>	MW 11:10 – 1:15	1 opening
<b>1184</b>	MW 1:50 – 3:55	17 openings

**Math 135 Self-Paced** is a computer-based course where you proceed at your own pace (with some constraints), but most importantly you may take a full two semesters to complete the course.

The following sections of Math 135SP are open, as of 1/28/19:

<b>3383</b>	MW 10:05 – 12:35
<b>3393</b>	MW 12:45 – 3:15
<b>3463</b>	TTh 8:30 – 11:00
<b>3513</b>	TTh 11:10 – 1:40
<b>3593</b>	TTh 2:30 – 5:00
<b>8403</b>	TTh 5:10 – 7:40

**Math 135 Online** allows you to do all of your learning at home via computer; you go to campus a few times to take tests.

There are no open sections.

## DVC Math Lab Hours

### 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 135

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.

Mon: 9–12, 3:30–7:30

Tue: 3:30–7:30

Wed: 9–12, 3:30–7:30

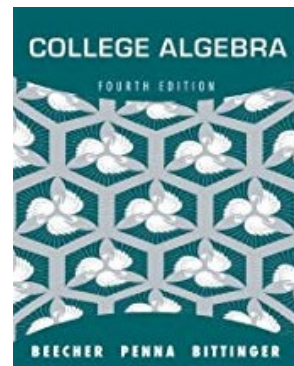
Thu: 3:30–7:30

Fri: 11–3

## Required

**Text:** *College Algebra: 4<sup>th</sup> Edition*, Beecher, Penna, and Bittinger

The bookstore knows what you need.



**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. As much as I hate students using calculators, I'm going to allow a calculator on every quiz and test.



A *graphing calculator* (or any calculator that does algebra) would be a good learning tool and a good investment for the future, but will not be allowed on quizzes or tests in my section of Math 135. Also, no cell-phone calculators (or any wireless devices) are allowed.

**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 on 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, or even more than 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 (purpose: to give you the weekend to study for the tests), and the fourth on Wednesday (since it's the last day of the semester). Although there might 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.



One 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 35%

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), and will always include an extra credit question. The quizzes cover primarily the lecture from the previous class meeting, and quite possibly previous quizzes. Please note that Quiz #1 will be given the first day of class. See the Schedule (on the class website) to find out how one should prepare for this quiz.

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).

I will drop your four lowest quizzes, but neither of the last two. There are NO make-ups on quizzes; if you miss a quiz, that will be one of the four that will be dropped.

## Power Test      5%

The Power Test is a 2-minute, multiple-choice test containing 10 questions, and with no calculator. This test must be passed (but just once!) in order to pass this class. A passing grade is a perfect score of 10; the test will be offered at almost every class meeting once I start giving them later in the semester.

## 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

From the DVC Catalog:

*This course presents a study of functions and their graphs, including polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; analytic geometry. Other topics include inequalities, nonlinear systems, conic sections. CSU, UC (credit limits may apply to UC - see counselor)*

### Objectives/Student Learning Outcomes

Students will be able to:

- A. Analyze and investigate properties of functions.
- B. Synthesize results from the graphs and/or equations of functions.
- C. Apply transformations to the graphs of functions.
- D. Recognize the relationship between functions and their inverses graphically and algebraically.
- E. Solve and apply rational, linear, polynomial, radical, absolute value, exponential, and logarithmic equations and solve linear, nonlinear, and absolute value inequalities.
- F. Solve systems of equations and inequalities.
- G. Apply techniques for finding zeros of polynomials and roots of equations.
- H. Apply functions and other algebraic techniques to model real world science, technology, engineering and mathematics (STEM) applications.
- I. Analyze conics algebraically and graphically.
- J. Use formulas to find sums of finite and infinite series.

### Content

- A. Functions including linear, polynomial, rational, radical, exponential, absolute value, logarithmic: definitions, evaluation, domain and range
- B. Inverses of functions
- C. Algebra of functions
- D. Graphs of functions including asymptotic behavior, intercepts, vertices
- E. Transformations of quadratic, absolute value, radical, rational, logarithmic, exponential functions
- F. Equations including rational, linear, polynomial, radical, exponential, absolute value, logarithmic
- G. Linear, nonlinear, and absolute value inequalities
- H. Systems of equations and inequalities I. Characterization of the zeros of polynomials
- I. Properties and applications of complex numbers
- J. Properties of conic sections
- K. Sequences and series