

SYLLABUS: MATH 245 – College Algebra (section 3270)

Thursdays 6:50 PM – 10:00 PM

(February 11 – June 2)

Room MS 111

Instructor David Diakoff (diakofdj@lavc.edu, 818-947-2600 X-8396)

Office Hours: Thursday 6:05-6:45 in the math building adjunct office

**Course description:** This course covers simplification of calculus-type expressions, graphs of polynomial and rational functions, root finding, types and graphs of basic functions including piecewise defined functions, graphing techniques (translations, reflections, shrinking/stretching), analysis and graphs of conic sections, modeling of calculus-type word problems, exponential and logarithmic functions, sequences and series, and the Binomial Theorem.

**Prerequisite:** MATH 125 (Intermediate Algebra)

**Student Learning Outcomes:** Students will be able to think analytically and read critically to solve college algebra level mathematical problems.

**Materials required:** Text (College Algebra (Sullivan), 9<sup>th</sup> edition), a notebook, and a calculator. You may not use your cell phone as a calculator.

**Course schedule:** We will cover material from the first nine chapters of the book in this course.

**Week one (2/11):** Chapter 1: Equations and Inequalities (solving linear, quadratic, radical, and absolute value equations and inequalities; applications).

**Week two (2/18):** Chapter 2: Graphs (distance and midpoint formulas, intercepts and symmetry, line equations and graphs, circle graphs, direct and inverse variation).

**Week three (2/25):** Chapters 3 & 4: Linear and Quadratic Functions and Graphs (function notation, domain of a function, linear function applications, quadratic function graphs and applications).

**Week four (3/3):** Chapters 3 & 4: Linear and Quadratic Functions and Graphs (quadratic inequalities, function types, transformations of functions).

**Week five (3/10):** Chapter 5: Polynomial and Rational Functions (properties of polynomial and rational functions, graphs of rational functions).

**Week six (3/17):** Chapter 5: Polynomial and Rational Functions (polynomial and rational inequalities, zeros of a polynomial function).

**Week seven (3/24):** Chapter 6: Exponential and Logarithmic Functions (composite functions, one-to-one functions, inverse functions). There will be a test over chapters 1, 2, 3, 4, and 5 on Thursday, March 24.

**Note: There is no class on 3/31 (Cesar Chavez Day) and 4/7 (Spring Break)**

**Week eight (4/14):** Chapter 6: Exponential and Logarithmic Functions (exponential and log functions, log properties).

**Week nine (4/21):** Chapter 6: Exponential and Logarithmic Functions (exponential and log equations, applications).

**Week ten (4/28):** Chapter 7: Analytic Geometry (parabolas, ellipses, hyperbolas).

**Week eleven (5/5):** Chapter 8: Systems of Equations and Inequalities (solving systems of linear equations algebraically, solving linear systems with matrices, solving nonlinear systems).

**Week twelve (5/12):** Chapter 9: Sequences and the Binomial Theorem (arithmetic and geometric sequences and series; the Binomial Theorem).

**Week thirteen (5/19):** There will be a test over chapters 6, 7, 8, and 9 on Thursday, May 19.

**Week fourteen (5/26):** Review for the final exam.

**Note: The final exam will be on Thursday, June 2 from 7:00 PM to 9:00 PM in MS 111.**

**Rules of conduct:** Students are expected to adhere to the standards of student conduct established by the LACCD (for more information see the college catalog). Violations of the conduct code will be dealt with according to the procedures laid out on pages 185-187 in the course catalog. In addition, students are reminded that there is no eating or drinking in class, and that all cell phones should be off while class is in session.

**Academic integrity:** Honesty and integrity are integral components of the academic process. LAVC has a Student Academic Integrity Policy Statement that students are expected to abide by. Any violation of academic integrity will be disciplined

accordingly. Anyone found to be cheating on an assignment will receive a zero for the assignment.

**Attendance:** Because this class meets for multiple hours per session, attendance at every class session is essential. It will be very difficult to be successful in this class if sessions are missed. In addition, it is important to be on time to every class period so that instruction is not missed and other students are not distracted.

**Grades:** The grading scale for the class will be as follows:

100%-90% = A, 89% - 80% = B, 79% - 70% = C, 69% - 60% = D, Below 60% = F  
We will have several quizzes over the course of the semester. In addition, I will assign problems that I will collect and grade for credit. Late assignments will not be accepted. If you do not turn in an assignment when it is due, you will receive a zero for the assignment. If you are absent from class, it is your responsibility to get the assignment and complete it for the next class meeting. We will also have two tests throughout the semester, as well as a cumulative final exam on Thursday, June 2. Each quiz will be worth 50 points, each test will be worth 150 points, the collected homework assignments will be worth a total of approximately 100 points for the semester, and the final exam will be worth 200 points. The lowest quiz score for each student will be dropped from his/her grade. Quizzes can not be made up; if a student misses a quiz, that quiz will be the quiz that is dropped from the grade.

**Study Groups/Tutoring:** Students often find it valuable to form a study group to review the material and prepare for quizzes and tests. You may wish to communicate with the other students in this class about forming such a group. In addition, there are math tutoring services located in the library building. Students will need to bring their student ID to get tutoring.

**Financial Aid:** Financial aid is available. Call (818)947-2412 or go to the Financial Aid Office in the new Student Services Center, first floor. For more information, visit [www.lavc.edu/financialaid/index.html](http://www.lavc.edu/financialaid/index.html)

**Access for Students with Disabilities:** If you are a student with a disability requiring classroom accommodations, and have not contacted SSD, do so in a timely manner. SSD is located in the Student Services Annex, Room 175 or call SSD at

(818)947-2681 or TTD at (818)947-2680 to meet with a SSD counselor. If SSD has already sent the memo confirming accommodations required by the student for this class, please meet with me to discuss arrangements.

**Drop/Add dates:**

Last day to add the class: Friday, February 19

Last day to drop the class without incurring fees by internet: Sunday, February 21

Last day to drop the class without receiving a “W” by internet: Sunday, February 21

Last day to drop the class with a “W” by internet: Sunday, May 8

NOTE: It is your responsibility to drop the class. If you are on the class roster and have not attended the class, you will receive an “F”.

**Campus Holidays:**

Friday, February 12 – Monday, February 15 (President’s Day)

Thursday, March 31 (Cesar Chavez Day)

Friday, April 1 – Friday, April 8 (Spring Break)

Monday, May 30 (Memorial Day)