## MATH 125S: \#18570/18571 Intermediate Algebra with Support

Table of
Contents

Page 1.
Course Description \& Basic Info

Page 2.
Classroom Policies \& Course Materials

Page 3.
Assignments and
Grades

Page 4.
Student Learning
Outcomes \& Course
Topics
Page 5.Tips for
Success/ Frequently
Asked Questions

Page 6. Other
Information

Page 7-11.
Schedule \&
Assignments
Page 12. Academic
Calendar/Important
Dates.

## Course Description

This course is a study of the properties of real numbers, laws of exponents, radicals, equations \& inequalities in linear and quadratic form, system of equations, matrices, graphing in two variables, rational expressions \& equations, complex numbers, conic sections \& their graphs, exponential and logarithmic functions.

Prerequisite: none

## Basic Course Information

## Instructor: Kristin Webster, Phd (Dr. Webster)

Class Meetings: MTW 10:10am - 11:45pm and Workshop Th. 10:10-11:10 via Zoom

Office Hours: Tu \& Th 7:45-10:05am and Th 11:15 am - 12:05 pm via Pronto

Final Exam: Tuesday, December 14, 2021, 9:30-11:30 am

## Instructor Contact Info:

Email: webstek@laced.edu, Canvas email or Pronto private message.

> LIFE IS A MATH EQUATION. IN ORDER TO GAIN THE MOST, YOU HAVE TO KNOW HOW TO CONVERT THE NEGATIVES
> INTO POSITIVES.

## Zoom Classroom Policies:

- It's important that we all treat one another with respect and kindness in Zoom, just as we would in person. For any misconduct, I will report the incident to LATTC's disciplinarian.
- These Zoom sessions are a great opportunity for us to interact, discuss, and learn together, and I'm looking forward to these meetings together!


#### Abstract

Attendance Policy: Only students who have been admitted to the college and are in approved active status may attend classes. Attendance is strongly recommended and graded. There are no make-ups for missed class activities, tests or late assignments. Students are responsible for announcements made in class in their absence including changes made to assignments or test dates.

Students should attend every meeting of all classes for which they register. To avoid being dropped from class, students should contact the instructor via email when they are absent for emergency reasons.




An instructor may exclude a student who is absent for more hours than the class meets per week or $20 \%$ of the total class hours. In this class, students will be dropped for missing 4 consecutive Zoom meetings or 5 total Zoom meetings. In addition, an instructor may equate three or more late arrivals or early departures from class as an absence for purposes of class attendance. Please Note: Students who are pre-registered in a class and miss the first meeting may lose their right to a place in the class.

Students are responsible for dropping a class that they stop attending. If the class is not dropped, the student may receive an " $F$ " in that class and be responsible for enrollment fee. Any drops or exclusions that occur between the 4th week and the 12th week will result in a "W" on the student's record. Drops are not permitted beyond the 12th week. A grade ("A","B", "C", "D","F", "INC", "P", or "NP") will be assigned to students who are enrolled past the 12 th week even if they stop attending class. For further details, refer to "W" section of "Grading Symbols and Definitions."

## Textbook: OpenStax Intermediate Algebra 2e https://openstax.org/books/intermediate-algebra-2e/pages/1-introduction

Required Course Materials: Paper, Pen/Pencil, TI30XS Multiview Calculator - 4 Lines. Some type of device that enables you to upload documents or photos, such as a scanner or cell phone camera.

## Assignments:

## Whatifingehra teachers arereally ilrates

1. Homework - Assignments will be posted on Canvas and on the Syllabus. Students are expected to complete ALL assigned problems but homework will not be graded or collected. Completion of the Homework is essential to success in other class activities.
2. Weekly Quizzes - There will be quizzes held weekly, usually Mondays during class time. Consult Canvas for the quiz schedule. It will be a $10-20$ minute quiz consisting of material from the previous weeks' homework. All work must be shown and uploaded to Canvas. The lowest quiz score will be dropped.
3. Discussion Boards - You will be required to complete weekly discussion boards which include a response to a prompt and also responding to at least two of your classmates. There will be a specific rubric posted for each discussion board based on the post requirements.
4. Attendance - Zoom meetings are required and quality of attendance will be graded. In order to get full credit, you must attend AND participate. There are up to 2 points per class for attendance and participation. A rubric will be posted on Canvas. Attendance grades will not be given on test days. Attendance will also be required and graded for Wednesday Workshops.
5. Tests -5 Chapter tests will be held periodically through the semester. Test dates will be posted on Canvas and are subject to change. Tests are worth 100 points each. No makeups permitted. You must log into ZOOM and are subject to monitoring during your test time.
6. Final Exam: Tuesday, December 14, 2021, 9:30-11:30 am

| Points: |  |
| :--- | :--- |
|  |  |
| Discussion Boards |  |
| Tests (Best 4 out of 5) | 140 Points |
| Final Exam: | 400 Points |
| Quizzes: | 200 Points |
| Attendance: | 140 Points |
| Thursday Workshop Attendance: | 88 Points |
| Total: | 52 Points |
|  |  |
| Grading Scale: |  |
| If your total is at least: | Your |
|  | grade is: |
| 900 Points | A |
| 800 | B |
| 700 | C |
| 600 | D |
| Less than 600 | F |

## List of Topics:

- Linear Equations and Inequalities in One Variable
- Inequalities and Problem Solving
- Linear Equations in Two Variables
- Systems of Linear Equations
- Exponents and Polynomials
- Factoring Polynomials
- Rational Expressions
- Functions
- Radicals, Radical Functions and Radical Exponents
- Quadratic Equations and Functions
- Exponential and Logarithmic Functions
- Sequences and Series
- Conic Sections


## Student Learning Outcomes

Upon completion of the course, a student will be able to:

1. The student will be able to define and manipulate nonlinear and linear functions and relations.
2. The student will be able to solve a variety of nonlinear equations, e.g. logarithmic, inverse, quadratic equations, absolute value, rational.
3. The student will be able to create, analyze, and interpret graphs of linear and nonlinear relations.
4. The student will be able to apply algebraic skills to a variety of applications such as: growth and decay, logic, reasoning, geometry,

How I see math word problems:


If you have 4 pencils and I have 7 apples, how many pancakes will fit on the roof? Purple, because aliens don't wear hats. optimization, quadratic applications (motion, mixture, and work).

## Tips for Success

1. Students should plan on spending at least $8-12$ studying and practicing problems outside of class.
2. It is never enough in math to only be able to get the answers. You must also work at understanding the underlying concepts as well.

ALL ROADS
that lead to

## Frequently Asked Questions

1. Is there extra credit?

Nope. Please don't ask. There are already "extra points" worked into the grading scheme. No additional opportunities will be offered.
2. I missed class, can I make up the test (assignment, quiz, etc.)?

No. Sorry. No make ups allowed. There is a bit of wiggle room already built into the grading policy.
3. I did the homework but I am (insert excuse here, sick, having internet trouble, etc.), can I hand it in late?

No. There are no late assignments accepted. If you cannot upload the assignment to Canvas under the assignments, you may email it to webstek@laccd.edu or upload it through the Canvas inbox. I recommend uploading your assignment as soon as it's done so that you have time to troubleshoot tech issues.

## Student Resources:

- NetTutor is 24 hour online tutoring help provided for multiple subjects for LACCD students through Canvas. Click on the "NetTutor" link on our Canvas page to access the service.
- Tutoring is also provided via Academic Connections.

Office Hours for LATTC Online Tutoring Services

- Monday - Thursday from 9:00a.m. - 6:00p.m.
- Friday 9:00a.m. - 2:00p.m

View Our Tutoring Schedule
Click here to register or for more info:
http://www.lattc.edu/services/academic/academic-connections

## Additional Information

Disclaimer: Syllabus/Schedule subject to change.

Academic Honesty Policy: Violations of academic integrity of any type by a student provide grounds for disciplinary action by the instructor or college. Violations of Academic Integrity include, but are not limited to, the following actions: cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper to more than one instructor, or allowing another individual to assume one's identity for the purpose of enhancing one's grade. For more information on the Standards of Student Conduct refer to the college catalog available in hard copy and online at http://www.lattc.edu.

Disability Support Services (DSS) Accommodation: Students with disabilities who seek academic accommodations should first promptly contact the Disabled Students Programs and Services (DSPS) office, Mariposa Hall, Room 100, (213) 763-3773,

- Email DSPSLATTC@LATTC.EDU to make a request for accommodations. For more information, please refer to LACCD Administrative Regulation E-100 ("Criteria for Serving Students with Disabilities").
- http://www.lattc.edu/services/support/dsps/students-rights-andresponsibilities

| Date | Sections | Homework (EOO = Every Other Odd) |
| :---: | :---: | :---: |
| Mon. 8/30/21 | - Syllabus Overview <br> - Chapter 1 Review - part 1 |  |
| Tues. 8/31/21 | - Chapter 1 Review - part 2 | Chapter 1 Review Exercises \#385-485 EOO |
| Wed. 9/1/21 | - 2.1 Use a General Strategy to Solve Linear Equations <br> - 2.2 Use a Problem Solving Strategy | Section 2.1 Exercises \#1-71 odd, 73, 74 Section 2.2 Exercises \#83-163 odd |
| Thurs. 9/2/21 | - Workshop on Chapter 1 and word problem strategies. |  |
| Tues. 9/7/21 | - 2.3 Solve a Formula for a Specific Variable <br> - 2.4 Solve Mixture and Uniform Motion Applications <br> - 2.5 Solve Linear Inequalities | Section 2.3 Exercises \#165-237 EOO Section 2.4 Exercises \#243-289 odd Section 2.5 Exercises \#297-365 EOO |
| Wed. 9/8/21 | - 2.6 Solve Compound Inequalities <br> - 2.7 Solve Absolute Value Inequalities | Section 2.6 Exercises \#377-429 odd Section 2.7 Exercises \#435-493 odd |
| Thurs. <br> 9/9/21 | Chapter 2 Review |  |
| Mon. 9/13/21 | - 3.1 Graph Linear Equations in Two Variables <br> - 3.2 Slope of a Line | Section 3.1 Exercises \#5-69 EOO <br> Section 3.2 Exercises \#73-149 odd |
| Tues. 9/14/21 | - 3.3 Find the Equation of a Line <br> - 3.4 Graph Linear Inequalities in Two Variables | Section 3.3 Exercises \#155-231 EOO Section 3.4 Exercises \#237-275 odd |
| Wed. 9/15/21 | - 3.5 Relations and Functions 3.6 Graphs of Functions | Section 3.5 Exercises \#283-331 odd Section 3.6 Exercises \#337-385 odd |
| Thurs. 9/16/21 | Chapter 3 Review Workshop |  |
| Mon. <br> 9/20/21 | Chapter 2 \& 3 Review \& Catchup |  |


| Tues. 9/21/21 | Chapter 2 \& 3 Test |  |
| :---: | :---: | :---: |
| Wed. 9/22/21 | - 4.1 Solve Systems of Linear Equations with Two Variables <br> - 4.2 Solve Applications with Systems of Equations | Section 4.1 Exercises \#1-65 EOO <br> Section 4.2 Exercises \#73-121 EOO |
| Thurs. 9/23/21 | Chapter 4 Workshop |  |
| Mon. 9/27/21 | - 4.3 Solve Mixture Applications with Systems of Equations <br> - 4.4 Solve Systems of Equations with Three Variables | Section 4.3 Exercises \#127-159 odd Section 4.4 Exercises \#163-193 odd |
| Tues. 9/28/21 | - 4.5 Solve Systems of Equations Using Matrices <br> - 4.6 Solve Systems of Equations Using Determinants | Section 4.5 Exercises \#197-229 odd Section 4.6 Exercises \#233-275 odd |
| Wed. 9/29/21 | - 4.7 Graphing Systems of Linear Inequalities <br> - 5.1 Add and Subtract Polynomials | Section 4.7 Exercises \#281-325 EOO Section 5.1 Exercises \#1-75 odd |
| Thurs. 9/30/21 | Chapter 4 Workshop part 2 |  |
| Mon. 10/4/21 | - 5.2 Properties of Exponents and Scientific Notation <br> - 5.3 Multiply Polynomials | Section 5.2 Exercises \#81-173 odd <br> Section 5.3 Exercises \#179-277 EOO |
| Tues. 10/5/21 | - 5.4 Dividing Polynomials | Section 5.4 Exercises \#289-333 odd |
| Wed. 10/6/21 | - Chapter 4 \& 5 Review \& Catchup |  |
| Thurs. 10/7/21 | - Chapter 4 \& 5 Review Workshop |  |
| Mon. 10/11/21 | Chapter 4 \& 5 Test |  |
| Tues. 10/12/21 | - 6.1 Greatest Common Factor and Factor by Grouping <br> - 6.2 Factor Trinomials | Section 6.1 Exercises \#1-55 odd Section 6.2 Exercises \#61-153 odd |
| Wed. 10/13/21 | - 6.3 Factor Special Products <br> - 6.4 General Strategy for Factoring Polynomials | Section 6.3 Exercises \#159-227 odd Section 6.4 Exercises \#233-271 odd |


| Thurs. 10/14/21 | Chapter 6 Workshop |  |
| :---: | :---: | :---: |
| Mon. 10/18/21 | - 6.5 Polynomial Equations <br> - 7.1 Multiply and Divide Rational Expressions | Section 6.5 Exercises \#277-333 odd Section 7.1 Exercises \#1-69 odd |
| Tues. 10/19/21 | - 7.2 Add and Subtract Rational Expressions <br> - 7.3 Simplify Complex Rational Expressions | Section 7.2 Exercises \#75-145 odd Section 7.3 Exercises \#151-193 odd |
| Wed. 10/20/21 | - 7.4 Solve Rational Equations | Section 7.4 Exercises \#197-249 odd |
| Thurs. 10/21/21 | Chapter 7 Workshop |  |
| Mon. 10/25/21 | - 7.5 Solve Applications with Rational Equations <br> - 7.6 Solve Rational Inequalities | Section 7.5 Exercises \#253-333 EOO Section 7.6 Exercises \#339-373 odd |
| Tues. 10/26/21 | Chapter 6 \& 7 Review \& Catchup |  |
| Wed. 10/27/21 | Chapter 6 \& 7 Test |  |
| Thurs. 10/28/21 | Word Problems Workshop |  |
| Mon. 11/1/21 | - 8.1 Simplify Expressions with Roots 8.2 Simplify Radical Expressions | Section 8.1 Exercises \#1-49 odd Section 8.2 Exercises \#55-107 EOO |
| Tues. 11/2/21 | - 8.3 Simplify Rational Exponents <br> - 8.4 Add, Subtract, and Multiply Radical Expressions | Section 8.3 Exercises \#119-161 odd Section 8.4 Exercises \#175-240 EOO |
| Wed. 11/3/21 | - 8.5 Divide Radical Expressions <br> - 8.6 Solve Radical Equations | Section 8.5 Exercises \#245-281 odd Section 8.6 Exercises \#287-347 EOO |
| Thurs. 11/4/21 | Chapter 8 Workshop |  |
| Mon. 11/8/21 | - 8.7 Use Radicals in Functions <br> - 8.8 Use the Complex Number System | Section 8.7 Exercises \#351-403 odd Section 8.8 Exercises \#409-477 odd |


| Tues. 11/9/21 | - 9.1 Solve Quadratic Equations Using the Square Root Property <br> - 9.2 Solve Quadratic Equations by Completing the Square | Section 9.1 Exercises \#1-65 EOO <br> Section 9.2 Exercises \#75-109 odd |
| :---: | :---: | :---: |
| Wed. 11/10/21 | - 9.3 Solve Quadratic Equations Using the Quadratic Formula <br> - 9.4 Solve Quadratic Equations in Quadratic Form | Section 9.3 Exercises \#113-151 odd Section 9.4 Exercises \#155-191 odd |
| Thurs. 11/11/21 | Veteran's Day Holiday - NO workshop |  |
| Mon. 11/15/21 | - 9.5 Solve Applications of Quadratic Equations <br> - 9.6 Graph Quadratic Functions Using Properties | Section 9.5 Exercises \#195-225 odd Section 9.6 Exercises \#229-287 |
| Tues. 11/16/21 | - 9.7 Graph Quadratic Functions Using Transformations <br> - 9.8 Solve Quadratic Inequalities | Section 9.7 Exercises \#293-357 EOO <br> Section 9.8 Exercises \#363-389 odd |
| Wed. 11/17/21 | - Chapter 8 \& 9 Review \& Catch-up |  |
| Thurs. 11/18/21 | Chapter 8 \& 9 Review Workshop |  |
| Monday. 11/22/21 | - Chapter 8 \& 9 Test |  |
| Tuesday. 11/23/21 | 10.1 Finding Composite and Inverse Functions 10.2 Evaluate and Graph Exponential Functions | Section 10.1 Exercises \#1-61 EOO <br> Section 10.2 Exercises \#65-121 odd |
| Wed. 11/24/21 | 10.3 Evaluate and Graph Logarithmic Functions 10.4 Use the Properties of Logarithms | Section 10.3 Exercises \# 127-211 EOO Section 10.4 Exercises \#219-283 odd |
| Thurs 11/25/21 | No Workshop - Thanksgiving Holiday |  |
| Mon. 11/29/21 | - 10.5 Solve Exponential and Logarithmic Equations <br> - 11.1 Distance and Midpoint Formulas; Circles | Section 10.5 Exercises \#289-353 odd Section 11.1 Exercises \#1-47 odd |
| Tues. 11/30/21 | - 11.2 Parabolas <br> - 11.3 Ellipses | Section 11.2 Exercises \#53-93 odd Section 11.3 Exercises \#99-137 odd |
| Wed. 12/1/21 | - 11.5 Solve Systems of Nonlinear Equations | Section 11.5 Exercises \#189-217 odd |


| Thurs. <br> $12 / 2 / 21$ | Chapter 10 \& 11 Review Workshop |  |
| :--- | :---: | :--- |
| Mon. <br> $12 / 6 / 21$ | $\bullet$ Chapter 10 \& 11 Review \& Catch-up |  |
| Tues. <br> $12 / 7 / 21$ | $\bullet$ Chapter 10 \& 11 Test |  |
| Wed. <br> $12 / 8 / 21$ | $\bullet$ Final Exam Review |  |
| Thurs. <br> $12 / 9 / 21$ | $\bullet$ Final Exam Review Workshop |  |
| Tuesday. <br> $12 / 14 / 21$ | FINAL EXAM $9: 30$-11:30 am |  |

Important Dates

## Fall 2021: Traditional Semester

| Session Period | August 30 - December 19 |
| :---: | :---: |
|  |  |
|  |  |
| M-F Classes Begin | August 30 |
| Sat Classes Begin | September 4 |
| Applications Accepted Beginning | Now |
| Finals | Dec 13 - Dec 19 (See Finals Schedule) |
| Last Day To/For |  |
| Recency Petitions | Deadline to enroll |
| Third Attempt Petitions | Deadline to enroll |
| Prerequisite Clearance/Challenge Petitions | Deadline to enroll |
| Add | Online: Aug 31- Sep 12 with permission number from instructor |
| Audit | Begin accepting on Sept 13 |
| File Pass / No Pass | Sept 12 |
| Drop without fees or get a refund | Sept 12 |
| Drop without a "W" | Sept 12 |
| Drop with a "W" | Nov 21 |
| Grades Due | Dec 28 |
| NOTE: Short-term courses and other your student information portal for | celerated program classes have different deadlines. Please check op dates and deadlines. |

Fall Semester 8-Week $1 \quad$ August 30-October 24

## Fall 2021: Holidays/Campus Closed

Labor Day

Veteran's Day Thanksgiving
Non-Instructional Days (College open)
Winter Holiday

September 6
September 6
November 25-26
November 27-28, December 20-23, 25-26 \& 28-29, January 1 \& 2
December 24, 27, 30-31, January 3

