Algebra II B v8.0 – Syllabus

Course Name

ALG2-B

Algebra II v8.0– Semester B

Course Information

This is the second semester of this two-semester course.

This course allows students to learn while having fun. Interactive examples help guide students' journey through customized feedback and praise. Mathematical concepts are applied to everyday occurrences such as earthquakes, stadium seating, and purchasing movie tickets. Students investigate the effects of an equation on its graph through the use of technology. Students have opportunities to work with their peers on specific lessons.

Course Delivery Method

Online

Contacting Your Instructor

You may contact your instructor using your Canvas Inbox. Technical support is available 24/7 at TTU K-12.

Course Topics

After completing this course, the students should have increased knowledge of:

Module 5: Exponential and Logarithmic Functions

- 05.00 Introduction to Exponential and Logarithmic Functions
- 05.01 Exponential Functions
- 05.02 Logarithmic Functions
- 05.03 Exponential and Logarithmic Functions Mid-Module Check
- 05.04 Exponential and Logarithmic Functions Discussion-Based Assessment

- 05.05 Graphing Exponential Functions
- 05.06 Graphing Logarithmic Functions
- 05.07 Exponential and Logarithmic Functions Review and Practice Test
- 05.08 Exponential and Logarithmic Functions Test

Module 6: Systems of Equations

- 06.00 Introduction to Systems of Equations
- 06.01 Solving Systems of Equations Algebraically
- 06.02 Solving Systems of Equations Graphically
- 06.03 Solving Systems of Nonlinear Equations
- 06.04 Graphing Systems of Nonlinear Equations
- 06.05 Systems of Equations Review and Practice Test
- 06.07 Systems of Equations Test

Module 7: Sequences and Series

- 07.00 Introduction to Sequences and Series
- 07.01 Arithmetic Sequences and Series
- 07.02 Geometric Sequences
- 07.03 Geometric Series
- 07.04 Sigma Notation
- 07.05 Graphing Sequences and Series
- 07.06 Sequences and Series Review and Practice Test
- 07.07 Sequences and Series Discussion-Based Assessment
- 07.08 Sequences and Series Test

Module 8: Statistics

- 08.00 Introduction to Statistics
- 08.01 Events and Outcomes in a Sample Space
- 08.02 Independent Probability
- 08.03 Conditional Probability
- 08.04 Normal Distribution
- 08.05 Models of Populations
- 08.06 Using Surveys
- 08.07 Using Experiments
- 08.08 Statistics Review and Practice Test
- 08.10 Statistics Test

Textbook and Materials

No textbooks required. All content is within Canvas.

Materials

- Desmos Graphing Calculator
- graphing calculator (optional)

Technical Requirements

- Internet access – preferably high speed (for accessing Canvas)
- browser (we recommend Chrome)
- supported browser plugins and settings
  The following plugins and settings may be required to use our courses.
  - JavaScript enabled
  - Cookies enabled
  - Java installed
- Email
- Printing capabilities
- Adobe Reader (download from Adobe)
- Audio and video capabilities (for watching/listening to course content)
- PDF app (free options available)

Technical Skill Requirements

Be comfortable with the following:

- accessing online learning materials via Canvas
- Internet search engines and browsers (we recommend Chrome)
- uploading assignments into Canvas (there will be instructions for uploading assignments)

Course Pacing

This course is designed to be completed in 18 weeks.

- Print this guide and use a calendar to fill in your goal dates for completing each Module.
- To achieve success, students are expected to submit work in each course weekly.
- Students can learn at their own pace; however, "any pace" still means that students must make progress in the course every week.
- Post the pace guide in a place where you and your Parent or Guardian will see it every day (on the refrigerator or next to the computer). Give yourself a check every time you complete a task, and celebrate your efforts!

**This assignment is labeled as “Honors,” but you must complete it in order to meet Texas standards. It is not optional for this course.

Weeks	Lessons	Due Date *(you write this in)*
1	Checkpoint 1 05.00 Introduction to Exponential and Logarithmic Functions 05.005 Inverse Variation 05.01 Exponential Functions 05.02 Logarithmic Functions	
2	05.03 Exponential and Logarithmic Functions Mid-Module Check 05.04 Exponential and Logarithmic Functions Discussion-Based Assessment 05.05 Graphing Exponential Functions 05.06 Graphing Logarithmic Functions	
3	05.07 Exponential and Logarithmic Functions Review and Practice Test 05.08 Exponential and Logarithmic Functions Test	
4	06.00 Introduction to Systems of Equations 06.01 Solving Systems of Equations Algebraically 06.02 Solving Systems of Equations Graphically	
5	06.025 Absolute Value Equations and Inequalities 06.03 Solving Systems of Nonlinear Equations 06.035 Transformations of Absolute Value Functions	
6	06.04 Graphing Systems of Nonlinear Equations 06.045 Optimization	
7	06.05 Systems of Equations Review and Practice Test Checkpoint 2 06.07 Systems of Equations Test	
8	07.00 Introduction to Sequences and Series 07.01 Arithmetic Sequences and Series 07.02 Geometric Sequences 07.03 Geometric Series	
9	07.04 Sigma Notation 07.05 Graphing Sequences and Series	

Weeks	Lessons	Due Date *(you write this in)*
10	07.06 Sequences and Series Review and Practice Test 07.07 Sequences and Series Discussion-Based Assessment 07.08 Sequences and Series Test	
11	08.00 Introduction to Statistics 08.01 Events and Outcomes in a Sample Space 08.02 Independent Probability	
12	08.03 Conditional Probability 08.04 Normal Distribution 08.05 Models of Populations	
13	08.06 Using Surveys 08.07 Using Experiments	
14	08.11 Semester B Project**	
15	08.08 Statistics Review and Practice Test Checkpoint 3 08.10 Statistics Test	
16	Final Exam Review ***Final Exam**	
17	Floating Vacation Week	
18	Floating Vacation Week	

Course Credit

Your grade will be calculated as follows:

- formative assessments (50%)
- summative assessments (20%)
- summative final exam (30%)

Assignments are labeled as “summative” or “formative” under Grades in Canvas.

Course Completion and Extensions

- Students may not complete the course in less than 30 days.
- All courses expire 180 days after the enrollment date.

Academic Integrity

It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

“Scholastic dishonesty” includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

Artificial Intelligence (AI) Use Policy

This policy covers any generative AI tool, such as ChatGTP, Elicit, Photo Math, etc. This includes text and artwork/graphics/video/audio, etc.

All work submitted in this course must be your own. You may not use artificial intelligence tools to complete your assignments in this course.

If an instructor suspects that an assignment is not the work of the student, it will receive a score of zero. The instructor will message the student or provide feedback on the assignment indicating the need to schedule a one-on-one video conference, during which the student will be required to demonstrate their skills or knowledge through an alternative or mutually agreed-upon assignment. The grade of the alternate or agreed upon assignment will be determined at the instructor’s discretion with the highest possible score being 70%.

If it is determined that a student has violated final exam directions on Final Exam A or CBE Set 1, the exam will be scored as zero. The student may take Final Exam B or CBE Set 2 with the highest possible score being 70%.

The incident will be reported to Texas Tech K-12 Administration and documented in the student’s file. Continued violations of Texas Tech University’s Academic Integrity Policy will result in the removal of the student from the program.

Student/Parent Expectations

You will be expected to log into the Canvas course regularly to be aware of possible announcements/reminders and to pace your student’s progress in the course.

The following are prohibited while using the Canvas interface:

- spamming;
- hacking; and
- using TTU or Canvas email for commercial purposes;

Inappropriate behavior shall result in consequences ranging from a request to correct the problem, to removal from the course or even the university, depending on the severity of the behavior. Disciplinary actions will be taken according to the TTU K-12 Student Handbook.

Communication

- You can expect a reply from your instructor within 2 business days.
- Use the Canvas Inbox for sending messages to your instructor.

Submitting Assignments

You will submit all assignments through Canvas, rather than by mail or email.

Technical Difficulties

Getting Help

For student assistance with Canvas, visit TTU K-12 Support.

Computer Problems

A working computer is necessary for online coursework. Computer problems will not be accepted as a valid reason for failure to complete course activities within the allotted time frame. Identify a second computer, before the course begins, that you can use if you experience computer problems.

Server Problems

When the Canvas server needs to be taken down for maintenance, the Canvas administrator will post an announcement in your course informing you of the time and date. If the server experiences unforeseen problems, your course instructor will notify you.

Lost or Corrupted Files

You must keep/save a copy of every project/assignment on an external disk or personal computer. In the event of any kind of technology failure (e.g., Canvas server crash or virus infection, students' own computer problems, loss of files in cyberspace, etc.) or any disputes, the instructor may request or require you to resubmit the files. In some instances, the instructor may need to open another attempt within Canvas, so communication with your instructor is critical in these circumstances.