

ACT Prep | 2026–2027 Syllabus

Cosby High School

Part 1: Course Information

Instructor Information

- **Course:** ACT Prep
- **Instructor:** Makayla Medford
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- **Parent square**

Course Description

This comprehensive ACT Math preparation course equips students with the essential skills and strategies needed to confidently master every question type on the exam. Throughout the curriculum, students will deep dive into core topics ranging from foundational arithmetic and advanced algebra to coordinate geometry, complex functions, and advanced trigonometry. By practicing data analysis, geometric visualization, and efficient problem-solving techniques, students will maximize their testing speed, accuracy, and overall score potential.

- **Pathway Area:** General Education

Textbook & Required Materials

- Pencil
- Paper

Part 2: Student Learning Outcomes

By the end of this course, students will be able to:

- **Analyze and Interpret Data:** Extract, manipulate, and draw accurate conclusions from complex tables, charts, graphs, and two-way frequency tables.
- **Solve Complex Algebraic Equations:** Master and execute operations involving multi-step linear equations, systems of equations, quadratic factoring, and inequalities.
- **Evaluate Functions and Sequences:** Correctly identify domain and range, compute composite functions, and determine the general terms of geometric or recursive sequences.

- **Apply Geometric and Trigonometric Principles:** Compute area, volume, and perimeter for complex shapes, solve right-triangle properties using SOH-CAH-TOA, and navigate the unit circle.
- **Calculate Probabilities and Statistical Measures:** Determine mean, median, mode, and weighted averages, while accurately computing conditional, joint, and independent probabilities.

Part 3: Course Structure & Pacing Schedule

Teaching Methods

Lecture, guided notes, class discussion, group work, projects, textbook practice, mastery connect, quizzes, and tests.

Assessment Methods

- Chapter Tests
- ACT Benchmarks
- ACT March 9

Predicted Topic Timeline

Dates are approximate and subject to change based on student needs and school closings.

Math Block 1: Foundation & Data

- **Week 1:** Introduction to the ACT ("What is the ACT?").
- **Week 2:** Diagnostic Practice Test & Identifying Areas of Improvement.
- **Week 3:** Foundational Arithmetic (fractions, decimals, percentages, factors, multiples, prime numbers, scientific notation).
- **Week 4:** Basic Algebra Essentials (solving first-degree equations, isolating variables, substitution, and translating word problems into symbols).
- **Remaining Half-Week (0.5):** Single-variable inequalities and graphing on a number line.

Math Block 2: Advanced Algebra & Graphs (Fall)

- **Week 1:** Advanced Algebra (factoring quadratics, multiplying binomials/FOIL, and polynomial operations).
- **Week 2:** Systems of Equations (solving linear systems via substitution/elimination and solving real-world matrix problems).
- **Week 3:** Coordinate Geometry (calculating slope, midpoints, distance formulas, and graphing linear equations).
- **Week 4:** Geometric Transformations (shape rotations, reflections across lines/axes, and translation vectors).
- **Half-Week (0.5):** Conic Sections basics (identifying the center and radius of a circle from its equation).

Math Block 3: Advanced Numbers, Geometry & Trig (January – February)

- **Week 1 (January):** Advanced Number Concepts (rational vs. irrational numbers, absolute value, rules of exponents, roots, and complex numbers featuring i).
- **Week 2:** Plane Geometry (parallel lines, transversals, angle sums, and calculating perimeter/area of composite shapes).
- **Week 3:** 3D Geometry & Right Triangles (volume/surface area of solids, Pythagorean theorem, and special 30-60-90 / 45-45-90 right triangles).
- **Week 4:** Trigonometry & Functions (SOH-CAH-TOA, unit circle basics, domain/range, and composite functions $f(g(x))$).
- **Half-Week (0.5):** Core Statistics & Probability (mean/median/mode, weighted averages, and basic probability) + Last-minute test-taking strategies.

Math Block 4: Life Skills, Finance & Study Prep (Post-ACT to May 21)

This final block combines real-world money management with practical study habits for life after high school.

Week 1: Time Management and Paychecks

- **Study Prep:** Learn how to schedule your days using digital calendars and daily time-blocking.

- **Money Skills:** Learn how to read a paycheck stub and understand taxes.

Week 2: Smart Studying and Budgeting

- **Study Prep:** Use flashcards and practice testing instead of just re-reading notes.
- **Money Skills:** Create a simple monthly budget and understand savings accounts.

Week 3: Note-Taking and Credit Scores

- **Study Prep:** Practice organized note-taking methods for difficult textbooks.
- **Money Skills:** Learn how credit card interest works and how to build a good credit score.

Week 4: Final Exams and Big Purchases

- **Study Prep:** Reduce test anxiety and build a study schedule for major final exams.
- **Money Skills:** Understand student loans, car financing, and the cost of renting an apartment.

Half-Week (0.5): The Future Blueprint Project

- **Final Task:** Create a personal plan that includes both a monthly budget and a school or job-training calendar.

Part 4: Grading & Course Policies

Grading Scale

- **90–100:**
- **80–89:** B
- **70–79:** C
- **60–69:** D
- **0–59:** F

Grades for on-time work will generally be entered into ASPEN within 5 school days. Assignments are subject to change.

Category Weights

- **Summative Assessments (Tests, Major Projects):** 50%
- **Formative Assessments (Quizzes, Benchmarks):** 30%
- **Daily Work / Homework / Classwork:** 20%

Late Work Policy

Late assignments will lose **10 points per day**. After 5 days of the original assignment due date, late work will not be accepted.

Makeup Work Policy

Students are responsible for requesting and completing missed work due to absences. You have **5 school days** from the date of return to turn in makeup work. Assignments can be retrieved from the designated absent work folder in the classroom.

Final Exam Policy (School Year 2026–2027)

- **Midterm Exams:** December 17 and 18
- **EOC Testing Window:** April 13 – May 5
- **Final Exams:** May 19 and 20 (*Senior exam dates adjusted for graduation calculations*)

The final exam counts as **15% of the overall course average**. For EOC courses, the state EOC quick score is weighted as the final exam score and averaged with the 4th nine-weeks grades. EOC teachers administer a graded quiz/test during final exam blocks.

Exam Exemption Incentive: Students in grades 9–12 may earn exemption from non-EOC final exams or EOC final quizzes/tests if:

1. The student has **3 or fewer absences** (excused or unexcused) during the semester prior to finals week (school-sponsored activities do not count as absences).
2. The student is **passing the class** prior to exams.

Exempt students may choose to take the exam on a "no-harm" basis (the grade will only count if it raises the student's overall average).

Part 5: Classroom Rules & Policies

Classroom Rules and Expectations.

- 1) Respect yourself and others.
- 2) No phones.

Part 6: Academic Dishonesty & District Policies

Academic Dishonesty Policy

People learn most effectively and build their strength of character by doing their reading, writing, test-taking, projects, research, and assignments. Students learn most from their education by evaluating, reflecting, and revising their work. Therefore, educating students about academic honesty and clarifying the school's policy on academic dishonesty is essential.

Definitions:

- **Cheating:** The unauthorized possession, giving, sharing, taking, or presentation of information and material benefits to a student. Examples include passing information during an assessment, using unauthorized materials/technology, sharing test details between classes, or submitting work that is not one's own.
- **Plagiarism:** Presenting someone else's ideas, research, or opinions as your own without proper documentation, even if rephrased. This includes copying verbatim, using phrases/illustrations without citation, or paraphrasing without attribution.

Consequences:

Plagiarism is a form of academic fraud. Students found guilty of plagiarism will have the option to redo the assignment within a specified timeframe and accept a letter grade penalty, or accept a zero. Parents will be involved in this decision.

Religion in the Classroom

The Board affirms that it is essential that teaching *about* religion—and not *of* a religion—be conducted in a factual, objective, and respectful manner:

1. Religious themes may be a part of the curriculum provided it is essential to the learning experience and presented objectively.
2. The inclusion of religion shall be for educational purposes only.
3. Studies shall never be used to proselytize, establish, foster, or demean any particular religion or set of beliefs.
4. Student-initiated expressions reflecting their beliefs regarding an assignment shall be accommodated.

Cocke County Board of Education Policy 4.214: Use of Artificial Intelligence Programs

Descriptor Term: Use of Artificial Intelligence Programs | **Descriptor Code:** 4.214 | **Issued Date:** 07/11/24

General

Artificial Intelligence (AI) programs as defined by state law may be used by staff and students in the district.

Only approved AI programs may be utilized in student instruction or in completing student work. The Director of Schools shall develop a procedure for staff to submit additional programs for approval.

District technology staff are tasked with overseeing the implementation of AI programs. These staff members will review artificial intelligence programs to ensure compliance with district policies as well as state and federal student data privacy laws and present recommendations to the Director of Schools for approval. Any approved programs shall be accessible to all students.

Employees shall not place personally identifiable information, financial information, intellectual property, or other confidential information into an AI system.

The Director of Schools shall incorporate training programs on AI into professional development for district staff. This training shall focus on responsible use of AI and best practices for use in school settings and include instruction regarding personally identifiable information and the need to comply with state and federal data privacy laws. Emphasis shall be placed on the importance of securing and properly storing any data that is collected by the district in compliance with state and federal law.

Staff Use

Staff may use AI in the completion of their own work. This may include, but not be limited to, drafting communications, notes, images, and the development of content for instructional or administrative purposes, as well as analyzing data and information. The following requirements shall be adhered to when using AI in the completion of work:

- Employees shall disclose their use of a generative AI tool if failure to do so would:
 - Violate the terms of the use of the AI tool;
 - Would mislead a supervisor or others as to the nature of the work; or
 - Would be inconsistent with the teacher code of ethics.
- Employees shall take all reasonable precautions to ensure the security of private student data when utilizing AI programs;
- Outputs from AI programs shall be verified by reliable sources and reviewed prior to use in order to reduce the risk of errors and inaccuracies; and
- Outputs shall not be incorporated into proprietary content or works.

Student Use

Teachers may allow students to use approved AI programs for instructional purposes. Any such use shall align with approved instructional standards and curriculum. Prior to using AI, teachers shall ensure students are provided with appropriate instruction on the responsible use of AI.

Academic Integrity

Students shall be instructed on responsible use standards including but not limited to the following:

1. Effective use of generative AI;

2. When it is appropriate to use AI in assignments;
3. How to determine whether AI responses are accurate;
4. Users assume responsibility for incorporating AI content responsibly; and
5. The difference between cheating and seeking support.

Notice to Parents

The Director of Schools shall provide notice to parent(s)/guardian(s) about the use of AI programs in the district. An approved list of AI programs will be provided by the technology department.

Reporting

The Director of Schools shall submit a report to the Board of Education each June on how this policy will be enforced in the upcoming school year. The Board shall approve the report and the Director shall submit it to the Department of Education by July 1st.

Legal References: Public Acts of 2024, Chapter No. 550; TCA 49-5-1001

Cross References: Use of the Internet 4.406