



STATE OF ALABAMA
DEPARTMENT OF EDUCATION



Eric G. Mackey, Ed.D.
 State Superintendent of Education

June 16, 2021

MEMORANDUM

TO: City and County Superintendents of Education

FROM: Eric G. Mackey *EGM*
 State Superintendent of Education

RE: 2021-2022 Secondary Mathematics Course Pathways with Full
 Implementation of the 2019 *Alabama Course of Study: Mathematics*

As you begin fully implementing the 2019 *Alabama Course of Study: Mathematics*, we realize that 2020-2021 has been one of the most challenging school years for both educators and students. For this reason, mathematics course sequences referenced in the Mathematics Pathways memorandum (FY15-2072) dated May 26, 2015, have been extended for the 2021-2022 academic year. This extension only applies to the following situations:

1. Either Algebra with Finance or Career Mathematics may substitute for the Algebra II graduation requirement.
2. Algebra with Finance and Career Mathematics may be completed before, after, or concurrently with Algebra II with Statistics.
3. Even though the courses were retired with the full implementation of the 2019 *Alabama Course of Study: Mathematics*, students who were previously enrolled in and were not awarded credit for Algebra IB, Geometry B, or Algebraic Connections may complete credit recovery via ACCESS.

Student course selection should be made with the assistance of parents and school counselors and aligned with the student's four-year plan. Additionally, students must be familiar with college or university admission requirements, ensuring that their course selection does not limit opportunities for scholarships or prevent National Collegiate Athletic Association (NCAA) eligibility.

Upon completion of the 2021-2022 academic year, high school students must follow the mathematics pathways described in Appendix B of the 2019 *Alabama Course of Study: Mathematics*. With a fewer number of standards per course, Geometry with Data Analysis, Algebra I with Probability, and Algebra II with Statistics are accessible to all students and provide challenging content designed to equip all students for future academic success.

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City and County Superintendents of Education
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Memorandum FY15-2072 and page 131 of the Revised 2016 *Alabama Course of Study: Mathematics* are attached. If you have questions concerning the approved mathematics pathways for the 2021-2022 academic year, please contact Mrs. Cathy Jones by email at cjones01@alde.edu, Dr. Monica Mack by email at monica.mack@alsde.edu, or Mrs. Cathy Lankford by email at cathy.lankford@alsde.edu. You may also contact Mrs. Jones, Dr. Mack, and Mrs. Lankford by telephone at (334) 694-4768.
EGM/CJ/VG

Attachments

cc: LEA Secondary Curriculum Directors
LEA High School Counselors
LEA Counseling Coordinators
LEA Technology Coordinators
LEA High School Principals
Dr. Daniel Boyd
Mrs. Angela Martin
Dr. Elisabeth Davis
Dr. Jimmy Hull
Mr. Sean J. Stevens
Mrs. Cathy Jones
Dr. Monica Mack
Mrs. Cathy Lankford

FY21-2085



STATE OF ALABAMA
DEPARTMENT OF EDUCATION



Thomas R. Bice
State Superintendent of Education

May 26, 2015

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MEMORANDUM

TO: City and County Superintendents of Education

FROM: Thomas R. Bice *TJB*
State Superintendent of Education

RE: Mathematics Pathways

The additional substitute courses referenced in the *Approved Courses in Mathematics and Science* (FY15-1013) memorandum dated April 3, 2015, has generated numerous telephone calls and e-mails inquiring about pathways of mathematics using the courses in the mathematics course of study, substitute courses, and special education courses. Inquiries have addressed how these may all fit together in assisting students in becoming prepared for their goals in high school and afterwards.

Students should choose their mathematics courses carefully and with intense counseling. The courses should be selected that would best aid the students in preparing for their college and career plans. Four-year plans may require mathematics course adjustments in the higher grades as the students' focus becomes clearer regarding future post-high school goals and mathematics preparation needed to be successful.

Students need to be familiar with the college or university mathematics admissions requirements of the institutions they plan to attend. Certain scholarships may also have high school mathematics course requirements. Athletes need to know if the National Collegiate Athletic Association (NCAA) approves the selected mathematics course credits for eligibility. One of the most important considerations is whether the mathematics courses selected will prepare the student for his/her future college or career goals. If a local education agency (LEA) is considering using dual enrollment to meet high school mathematics course requirements, the LEA should consider working closely with postsecondary institutions to develop courses that align with high school course standards.

The accompanying document provides possible mathematics pathways for students, parents, and counselors to consider as the student prepares for high school mathematics course credits. Some students begin to earn high school mathematics credits as early as Grade 7 or Grade 8. If high school credits are earned earlier than Grade 9, the students who have been advanced need to know what mathematics courses will be available in Grades 9-12. The purpose for advancing students in mathematics is to ensure that the students may receive

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additional mathematics credit in high school. The charts provide possible pathways for those students. The charts also describe pathways for students who are on track for earning their mathematics credits in Grades 9-12. Possible pathways for regular education students with special needs or students with disabilities have also been included.

If you have questions concerning the mathematics pathways, please contact Dr. Susan B. Davis at (334) 353-9151 or by e-mail at sdavis@alsde.edu or Mrs. Alicia Hodge at (334) 242-8114 or by e-mail at ahodge@alsde.edu.

TRB/RAN/LM

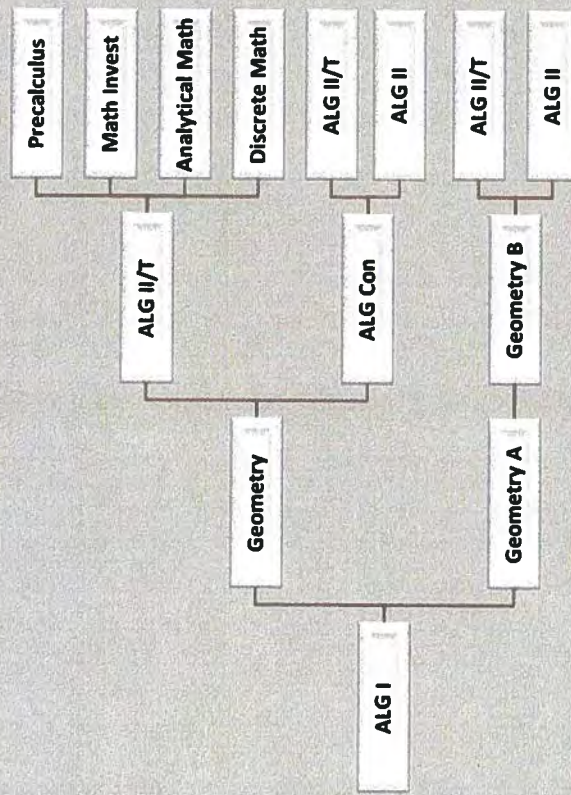
Attachments

cc: LEA Curriculum Directors
LEA Counselors
LEA Technology Coordinators
Principals
Dr. Susan B. Davis
Mrs. Alicia Hodge

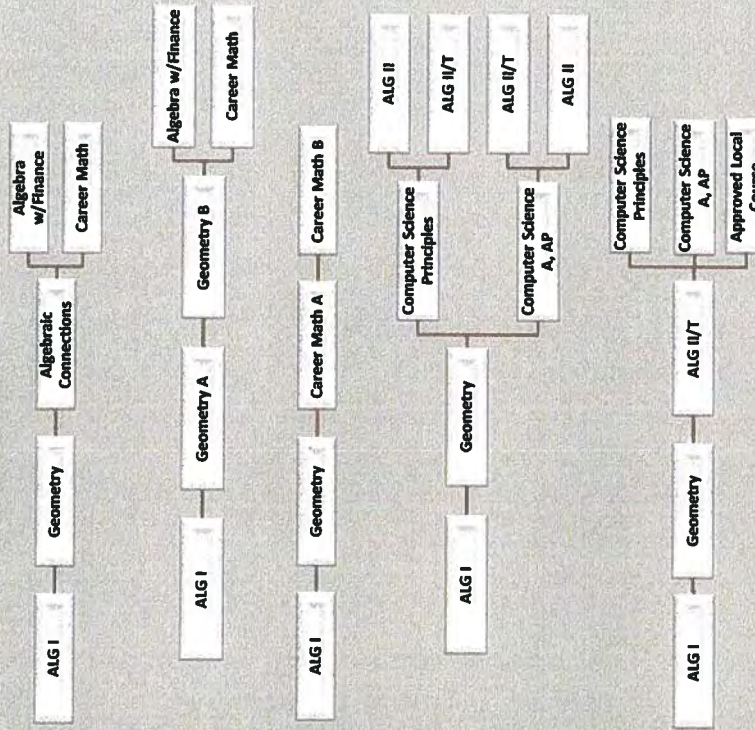
FY15-2072

Math Pathways

Algebra I in Grade 9



Math Substitutes



Selected mathematics courses should be checked by the student, with counselor guidance, for acceptance by NCAA, certain scholarships, college or university admission requirements, and/or chosen career goals.

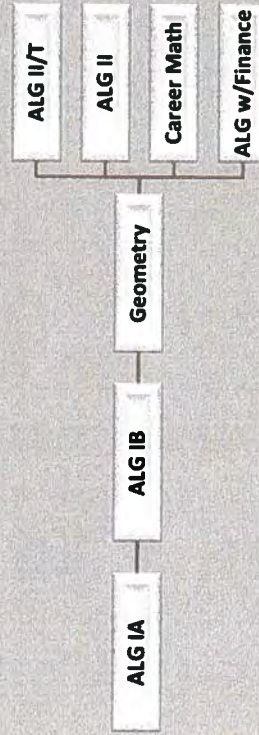
Students must be well counseled before they enroll in any mathematics course, including substitute courses.

Mathematics courses should be carefully chosen for the student's four-year plan and modified as the student narrows his/her focus on post-high school goals.

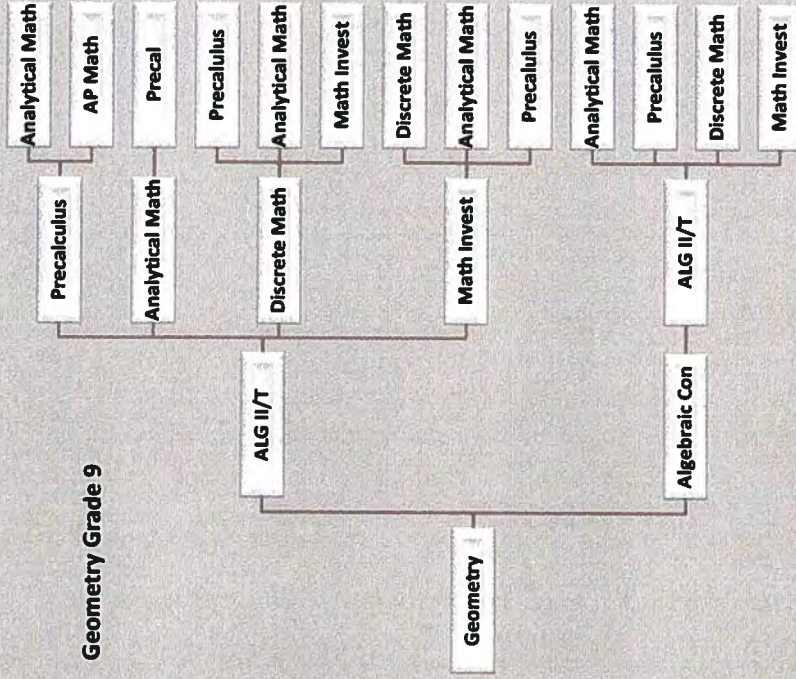
Mathematics courses should be selected by each student, with proper counseling, that will enable him/her to be successfully prepared to reach his/her desired post-high school goal(s).

Math Pathways

Algebra IA in Grade 9

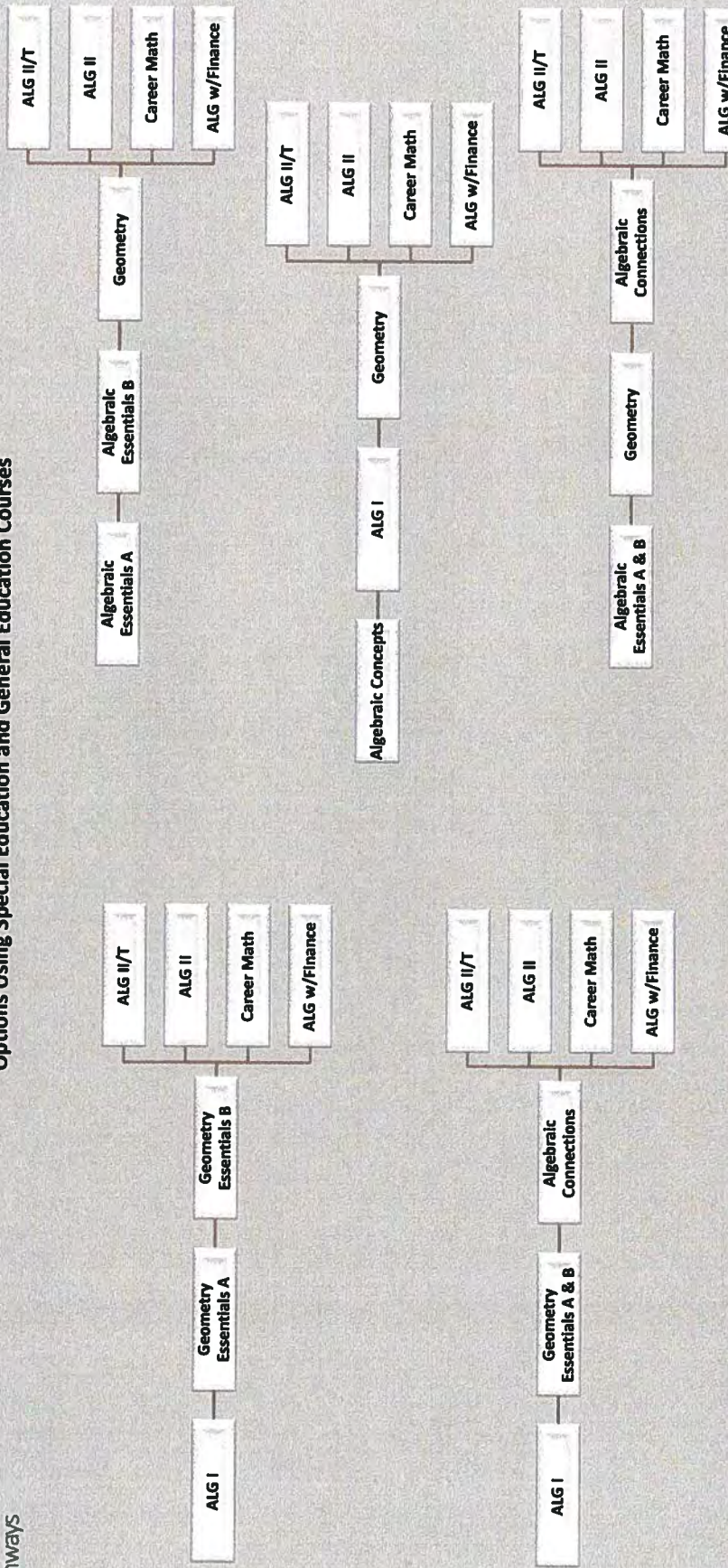


Geometry Grade 9



- Selected mathematics courses should be checked by the student, with counselor guidance, for acceptance by NCAA, certain scholarships, college or university admission requirements, and/or chosen career goals.
- Students must be well counseled before they enroll in any mathematics course, including substitute courses.
- Mathematics courses should be carefully chosen for the student's four-year plan and modified as the student narrows his/her focus on post-high school goals.
- Mathematics courses should be selected by each student, with proper counseling, that will enable him/her to be successfully prepared to reach his/her desired post-high school goal(s).

Options Using Special Education and General Education Courses



- Selected mathematics courses should be checked by the student, with counselor guidance, for acceptance by NCAA, certain scholarships, college or university admission requirements, and/or chosen career goals.
- Students must be well counseled before they enroll in any mathematics course, including substitute courses.
- Mathematics courses should be carefully chosen for the student's four-year plan and modified as the student narrows his/her focus on post-high school goals.
- Mathematics courses should be selected by each student, with proper counseling, that will enable him/her to be successfully prepared to reach his/her desired post-high school goal(s).

Possible Mathematics Course Pathways

Algebra I in Grade 9

Algebra I Geometry Algebra II/Trigonometry Precalculus	Algebra I Geometry Algebraic Connections Algebra II/Trigonometry	Algebra I Geometry Algebraic Connections Algebra with Finance	Algebra I Geometry Algebra II/Trigonometry Computer Science A, AP
Algebra I Geometry Algebra II/Trigonometry Mathematical Investigations	Algebra I Geometry Algebraic Connections Algebra II	Algebra I Geometry Algebraic Connections Career Mathematics	Algebra I Geometry Algebra II/Trigonometry Approved Local Course
Algebra I Geometry Algebra II/Trigonometry Analytical Mathematics	Algebra I Geometry A Geometry B Algebra II/Trigonometry	Algebra I Geometry A Geometry B Algebra with Finance	Algebra I Geometry Computer Science A, AP Algebra II/Trigonometry
Algebra I Geometry Algebra II/Trigonometry Discrete Mathematics	Algebra I Geometry A Geometry B Algebra II	Algebra I Geometry A Geometry B Career Mathematics	Algebra I Geometry Computer Science A, AP Algebra II
	Algebra I Geometry Career Mathematics A Career Mathematics B	Algebra I Geometry Career Mathematics A Career Mathematics B	Algebra I Geometry Algebra II/Trigonometry Computer Science Principles

Mathematics Substitutes

Possible Mathematics Course Pathways

Algebra IA in Grade 9

Algebra IA
Algebra IB
Geometry
Algebra II/Trigonometry

Algebra IA
Algebra IB
Geometry
Algebra II

Algebra IA
Algebra IB
Geometry
Career Mathematics

Algebra IA
Algebra IB
Geometry
Algebra with Finance

Geometry in Grade 9

Geometry
Algebra II/Trigonometry
Discrete Mathematics
Analytical Mathematics

Geometry
Algebra II/Trigonometry
Discrete Mathematics
Mathematical Investigations

Geometry
Algebra II/Trigonometry
Mathematical Investigations
Discrete Mathematics

Geometry
Algebra II/Trigonometry
Mathematical Investigations
Analytical Mathematics

Geometry
Algebra II/Trigonometry
Mathematical Investigations
Precalculus

Geometry
Algebraic Connections
Algebra II/Trigonometry
Analytical Mathematics

Geometry
Algebraic Connections
Algebra II/Trigonometry
Precalculus

Geometry
Algebraic Connections
Algebra II/Trigonometry
Discrete Mathematics

Geometry
Algebraic Connections
Algebra II/Trigonometry
Mathematical investigations

Possible Mathematics Course Pathways

Options Using Special Education and General Education Courses

Algebra I Geometry Essentials A Geometry Essentials B Algebra II/T	Algebra I Geometry Essentials A & B Algebraic Connections Algebra II/T	Algebraic Essentials A Algebraic Essentials B Geometry Algebra II/T	Algebraic Concepts Algebra I Geometry Algebra II/T	Algebraic Essentials A & B Geometry Algebraic Connections Algebra II/T
Algebra I Geometry Essentials A Geometry Essentials B Algebra II	Algebra I Geometry Essentials A & B Algebraic Connections Algebra II	Algebraic Essentials A Algebraic Essentials B Geometry Algebra II	Algebraic Concepts Algebra I Geometry Algebra II	Algebraic Essentials A & B Geometry Algebraic Connections Algebra II
Algebra I Geometry Essentials A Geometry Essentials B Career Math	Algebra I Geometry Essentials A & B Algebraic Connections Career Math	Algebraic Essentials A Algebraic Essentials B Geometry Career Math	Algebraic Concepts Algebra I Geometry Career Math	Algebraic Essentials A & B Geometry Algebraic Connections Career Math
Algebra I Geometry Essentials A Geometry Essentials B Algebra w/Finance	Algebra I Geometry Essentials A & B Algebraic Connections Algebra w/Finance	Algebraic Essentials A Algebraic Essentials B Geometry Algebra w/Finance	Algebraic Concepts Algebra I Geometry Algebra w/Finance	Algebraic Essentials A & B Geometry Algebraic Connections Algebra w/Finance

POSSIBLE COURSE PATHWAYS

There are several pathways by which a student can meet the high school graduation requirements for earning four credits in mathematics in Grades 9-12. Local school systems may determine which pathways lead to completion of the requirements for a specific diploma, provided the minimum requirements set forth by the Alabama State Board of Education are followed. Some pathways in Grades 9-12 are indicated below.

Pathways for Students Who Begin Algebra I in Grade 9

Algebra I Geometry Algebra II With Trigonometry Precalculus	Algebra I Geometry Algebra II With Trigonometry Analytical Mathematics	Algebra I Geometry Algebra II With Trigonometry Discrete Mathematics
Algebra I Geometry Algebra II With Trigonometry Mathematical Investigations	Algebra I Geometry Algebraic Connections Algebra II With Trigonometry	Algebra IA Algebra IB Geometry Algebra II With Trigonometry
Algebra I Geometry A Geometry B Algebra II With Trigonometry	Algebra I Geometry Algebraic Connections Algebra II	Algebra IA Algebra IB Geometry Algebra II
Algebra I Geometry A Geometry B Algebra II		

Some Pathways for Students Who Complete Algebra I in Grade 8

Geometry Algebra II With Trigonometry Precalculus Analytical Mathematics	Geometry Algebra II With Trigonometry Analytical Mathematics Precalculus	Geometry Algebra II With Trigonometry Precalculus Advanced Placement (AP) Mathematics Course
Geometry Algebraic Connections Algebra II With Trigonometry Analytical Mathematics	Geometry Algebra II With Trigonometry Discrete Mathematics Precalculus	Geometry Algebra II With Trigonometry Mathematical Investigations Precalculus
Geometry Algebra II With Trigonometry Mathematical Investigations Discrete Mathematics	Geometry Algebra II With Trigonometry Discrete Mathematics Mathematical Investigations	Geometry Algebraic Connections Algebra II With Trigonometry Precalculus
Geometry Algebraic Connections Algebra II With Trigonometry Analytical Mathematics	Geometry Algebraic Connections Algebra II With Trigonometry Discrete Mathematics	Geometry Algebraic Connections Algebra II With Trigonometry Mathematical Investigations