

## **District Concurrent Enrollment Pathway Proposal**

The Concurrent Enrollment (CE) Pathway proposal is to be submitted to the District CE Coordinator for prior approval and should include the following information:

**Name of CE Pathway:** Mathematics

**Name of Institution of Higher Education:** Arapahoe Community College (ACC)

**Non-Discrimination Statement:** Arapahoe Community College prohibits all forms of discrimination and harassment including those that violate federal and state law or the State Board for Community Colleges and Occupational Education Board Policies 3-120 or 19-60. The College does not discriminate on the basis of sex/gender, race, color, age, creed, national or ethnic origin, physical or mental disability, veteran status, pregnancy status, religion, genetic information, gender identity, or sexual orientation in its employment practices or educational programs and activities. Arapahoe Community College will take appropriate steps to ensure that the lack of English language skills will not be a barrier to admission and participation in vocational education programs.

### **I. GOALS**

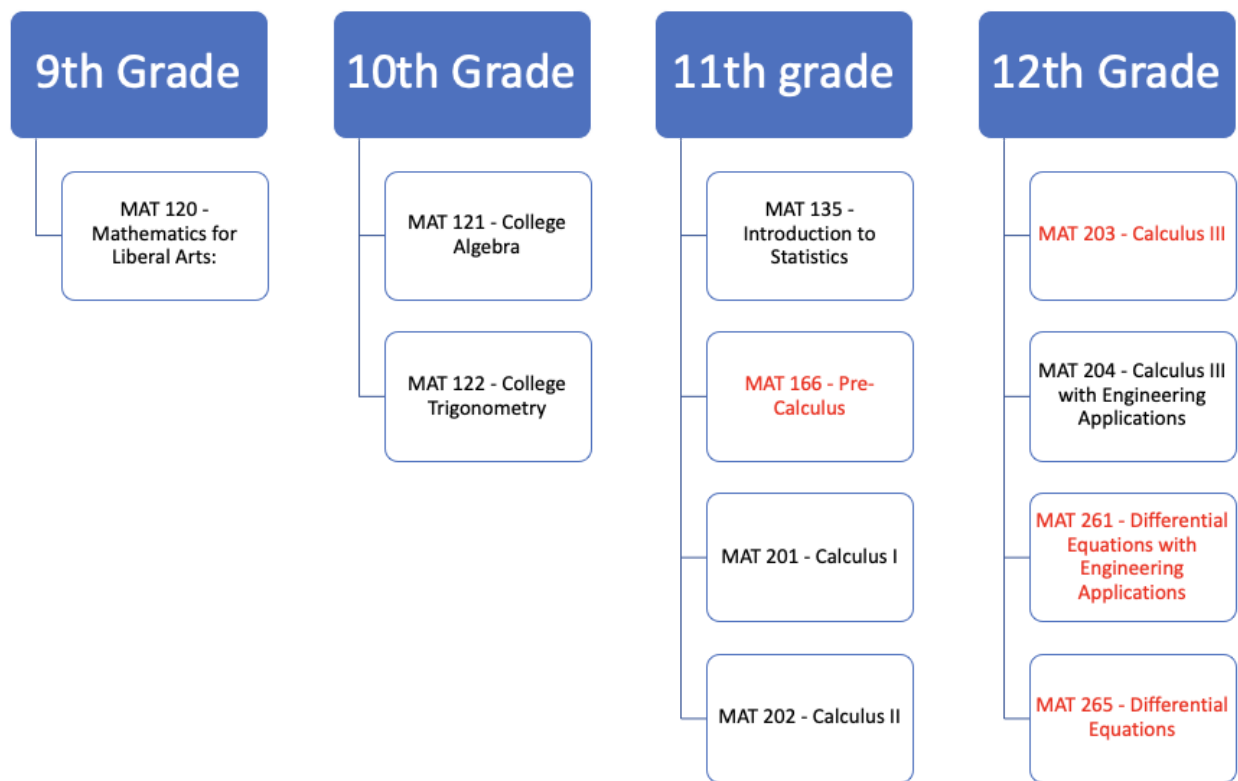
**A. Provide a brief overview of the Pathway.** This pathway provides a solid foundation in mathematics at the college level, offering Guaranteed Transfer (GT) courses. Students can continue this pathway through ACC or another Institute of Higher Education (IHE) to pursue an Associate of Mathematics degree or transfer the courses within this pathway into another aligned degree.

**B. How does this CE pathway fit into the overall educational program?** Students will earn college credit while still in high school, being introduced to the rigors of college coursework early. Studies have shown that students who participate in concurrent enrollment pathways are more likely to graduate on time, or early, and continue with specific college coursework to obtain an Associate or Bachelor degree.

**C. What benefits will our students receive from this CE pathway?** Students will be able to: 1) communicate mathematics with understanding using symbolic, graphical, numerical, and written representations of mathematical ideas; 2) use critical thinking and mathematical reasoning to solve a variety of problems, including real-world situations; and 3) use technology to enhance mathematical understanding, critical thinking, and problem-solving skills.

**II. Concurrent Education Pathway Courses -**

A. Complete the table below indicating the courses students would take within the pathway. Other courses may be added or changed within the pathway, based upon the need of students or program modifications. **New course information will be indicated in red text.**





<i>Level</i>	<i>Course Name</i>	<i>Course Description</i>	<i>College Credits</i>	<i>Prerequisites</i>
9th or 10th	MAT 120 - Mathematics for Liberal Arts: GT-MA1		4	MAT 050/MAT 055/090 or higher with a grade of "C" or better.
10th or 11th	MAT 121 - College Algebra: GT-MA 1		4	MAT 055 with a grade of "C" or better.
10th or 11th	MAT 122 - College		3	MAT 121 with a grade of "C"


	Trigonometry: GT-MA1			or better.
11th	MAT 135 - Introduction to Statistics: GT-MA1		3	MAT 050/MAT 055/090 or higher with a grade of "C" or better.
11th	<b>MAT 166 - Pre-Calculus: GT-MA1</b>	<b>This course reviews college algebra and college trigonometry intended for those planning to take calculus. Topics include algebraic manipulations, properties of algebraic and trigonometric functions and their graphs, trig identities and equations, conic sections, polar coordinates and parametric equations.</b>	<b>5</b>	<b>MAT 121 with a grade of "C" or better; or equivalent placement scores.</b>
11th or 12th	MAT 201 - Calculus I: GT-MA1		5	MAT 122 or MAT 166 with a grade of "C" or better; or equivalent placement scores.
11th or 12th	MAT 202 - Calculus II: GT-MA1		5	MAT 201 with a grade of "C" or better.
12th	<b>MAT 203 - Calculus III: GT-MA1</b>	<b>Completes the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application.</b>	<b>4</b>	<b>MAT 202 with a grade of "C" or better.</b>
12th	MAT 204 -		5	MAT 202 with


	Calculus III with Engineering Applications: GT-MA1			a grade of "C" or better.
12th	MAT 261 - Differential Equations with Engineering Applications: GT-MA1	This course introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 - Differential Equations: GT-MA1 with an additional emphasis on applications and problem solving. A graphing calculator is required for this course.	4	MAT 203 or MAT 204 with a grade of "C" or better.
12th	MAT 265 - Differential Equations: GT-MA1	Emphasizes techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms.	3	MAT 203 or MAT 204 with a grade of "C" or better.

**Signature Page**

<p>Does the District CE Coordinator approve adoption of this program?                  ** <i>Your signature below indicates your approval of the program.</i></p>
<p>Signature                   Joy Griffin (Feb 5, 2021 07:10 MST)</p>

<p>Does the Director of CIPG approve adoption of this program?                  ** <i>Your signature below indicates your approval of the program.</i></p>
<p>Signature                   Erica Mason (Feb 5, 2021 12:58 MST)</p>

<p>Does the Chief Assessment Officer approve adoption of this program?                  ** <i>Your signature below indicates your approval of the program.</i></p>
<p>Signature                   Matt Reynolds (Feb 7, 2021 21:01 MST)</p>

<p>Does the Assistant Superintendent approve adoption of this program?                  ** <i>Your signature below indicates your approval of the program.</i></p>
<p>Signature </p>

Does the Board of Education approve adoption of this program?	Yes	No
Date of BOE Meeting _____		
Signature _____		

## Superintendent File: IGA-E-1

**Office use:** The following information is required to build individual courses into Infinite Campus

Credit Type: ( FNA, PRA, MAT, etc)	
Department Code:	
Course Number:	
Course entered in NCAA database if applicable.	
Update <a href="#">Graduation Competencies</a> course document if applicable for Math and English courses.	
VIP Code:	
CIP Code:	N/A
Add to HEAR list, if applicable.	
Course Mapping SCED code:	
Date entered into Infinite Campus	
Credit amount:	