

Dana Center  
**Mathematics**  
PATHWAYS

# Strategies to Improve Readiness for Mathematics Pathways

April 16, 2018

Texas Pathways Institute



# Readiness for Mathematics Pathways

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**Associate Vice Chancellor for Student Success Partnerships**

**San Jacinto College**

# Readiness for Mathematics Pathways

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10:30 Introductions and framing

11:00 K-12 and postsecondary mathematics alignment

11:30 Lunch

11:45 San Jacinto College

12:15 Mathematics Pathways Alignment Toolkit

12:45 Closing thoughts

# Readiness for Mathematics Pathways

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10:30 Introductions and framing

# Readiness for Mathematics Pathways

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College Level Courses for  
Dual Credit

College Prep Mathematics  
Course

- 1) How are you collaborating with K-12 feeder districts on mathematics pathways?
- 2) Which college mathematics courses are you offering for dual credit to high school students? Are they aligned to the higher education mathematics pathways?
- 3) Are your districts implementing the College Prep Mathematics Course? If so, how is it going?

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# Readiness for Mathematics Pathways

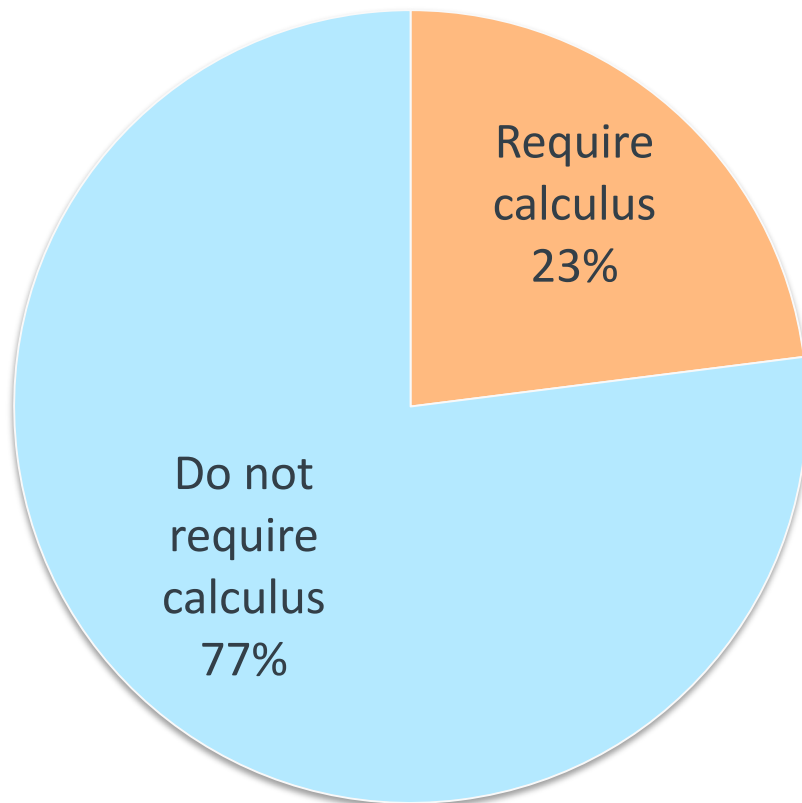
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10:30 Introductions and framing

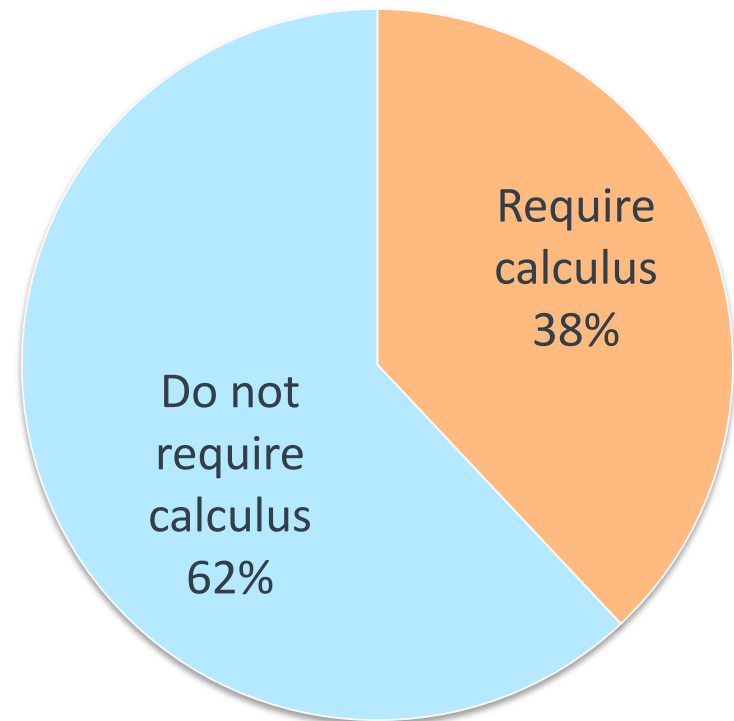
11:00 K-12 and postsecondary mathematics alignment

# What does it mean to be college ready in mathematics?

## Associate's Degrees Awarded



## Bachelor's Degrees Awarded

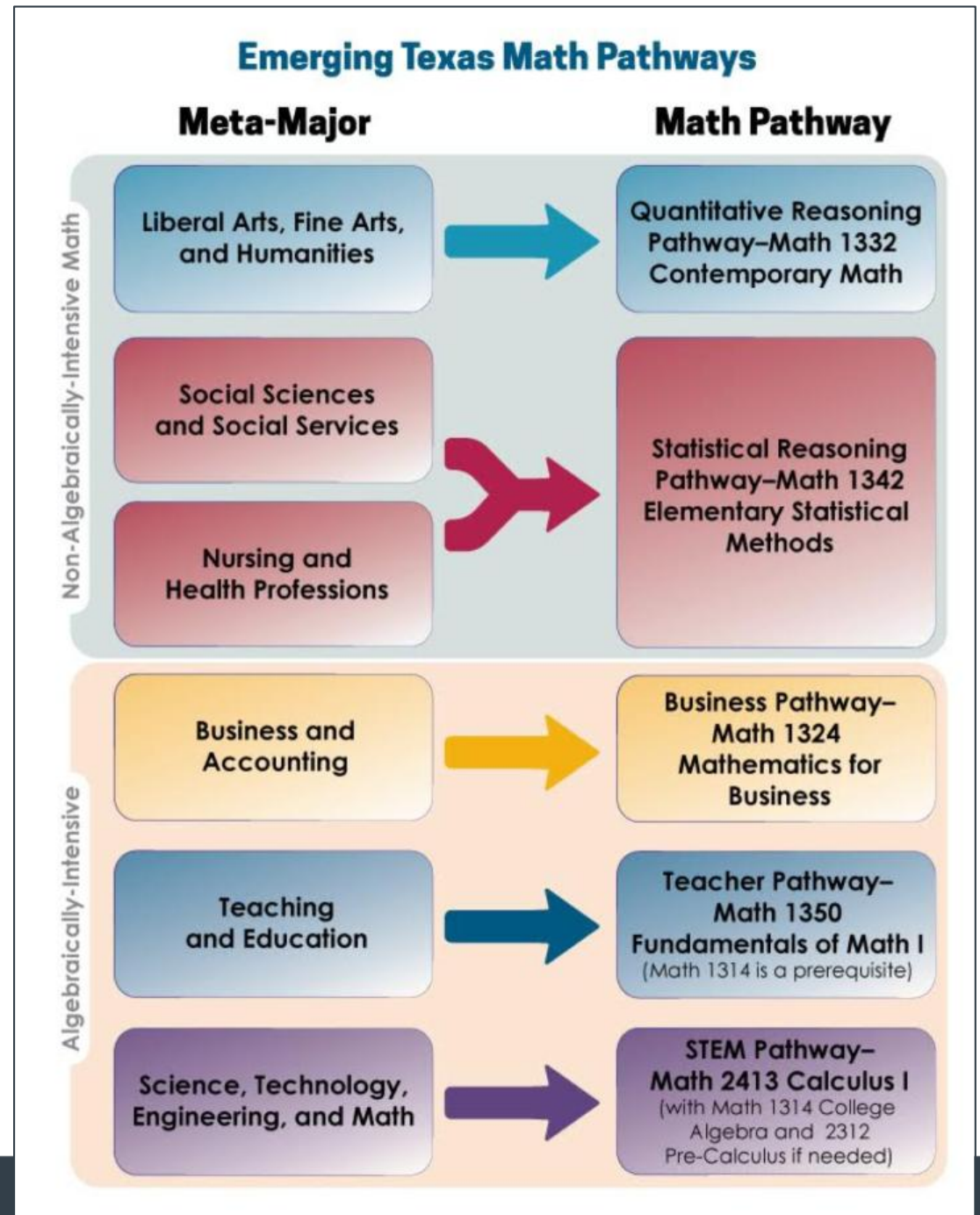


Author's calculations based on data from the Texas Higher Education Coordinating Board, 2013: Degrees Earned by CIP Code.



# What are Mathematics Pathways?

A course or sequence of courses that students take to meet the requirements of their program of study.



## HB5: Endorsements

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Arts and  
Humanities

Public Service

Business and  
Industry

STEM

Multidisciplinary

# HB5: Mathematics Course Requirements

## Foundation Graduation Plan

	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year
Math	Algebra I	Geometry	3 <sup>rd</sup> year course	
Science	Biology	IPC, Chemistry, Physics, or Principles of Technology	3 <sup>rd</sup> year course	

# HB5: Mathematics Course Requirements

Foundation + Endorsement

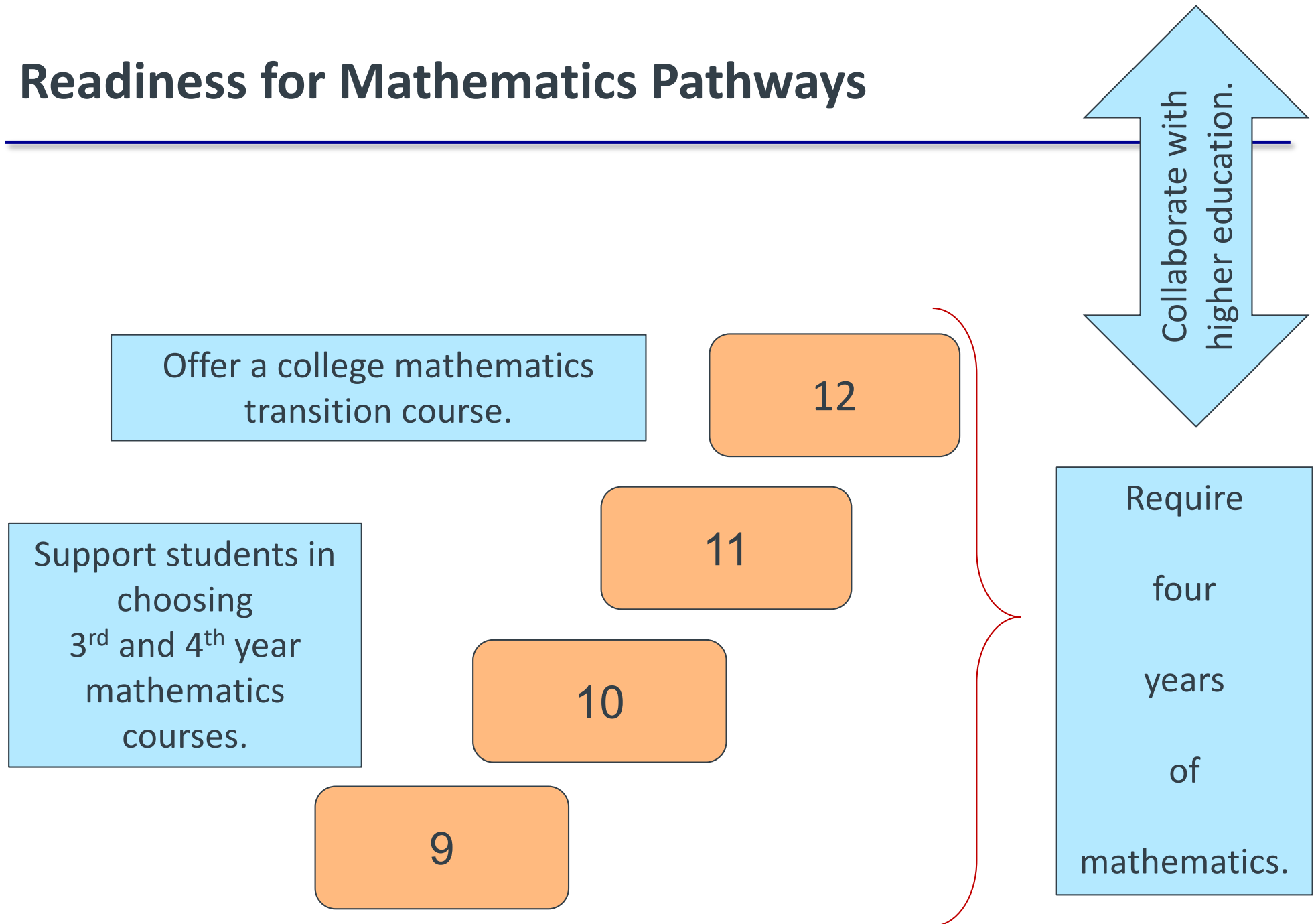
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year
Math	Algebra I	Geometry	3 <sup>rd</sup> year course	4 <sup>th</sup> year course
Science	Biology	IPC, Chemistry, Physics, or Principles of Technology	3 <sup>rd</sup> year course	4 <sup>th</sup> year course
STEM Endorsement				Algebra II, Chemistry, and Physics

# HB5: Mathematics Course Requirements

Foundation + Endorsement + Distinguished Achievement

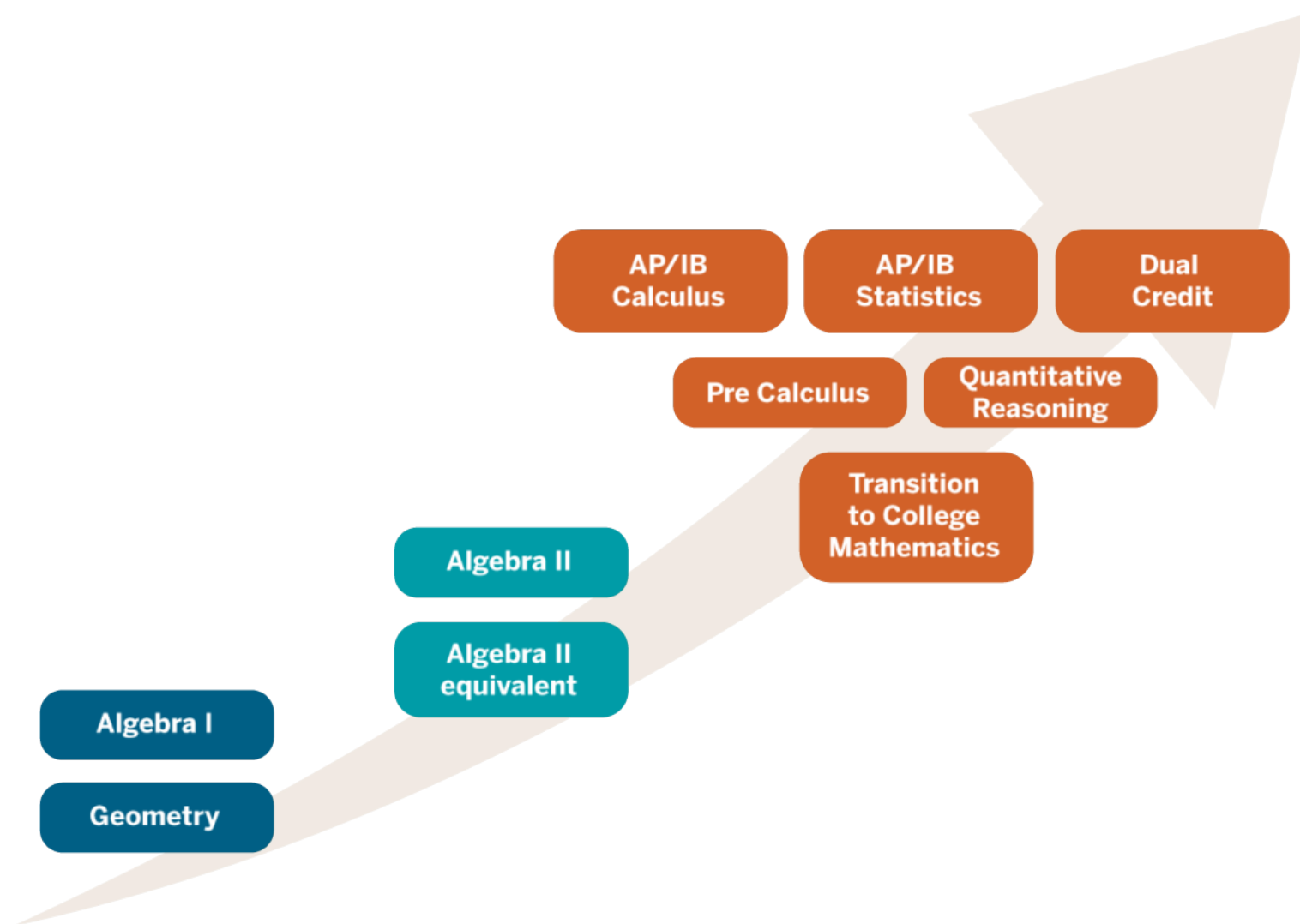
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year
Math	Algebra I	Geometry	Algebra II	4 <sup>th</sup> year course
Science	Biology	IPC, Chemistry, Physics, or Principles of Technology	3 <sup>rd</sup> year course	4 <sup>th</sup> year course
STEM Endorsement				Algebra II, Chemistry, and Physics

# Readiness for Mathematics Pathways



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# Colleges Offering Each Course for Dual Credit

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2016, Texas Higher Education Coordinating Board

College Algebra 46

Plane Trigonometry 6

PreCalculus 6

Calculus 5

Statistics 3

Contemporary  
Mathematics 0



# Readiness for Mathematics Pathways

## READY

Dual Credit

Advanced Placement

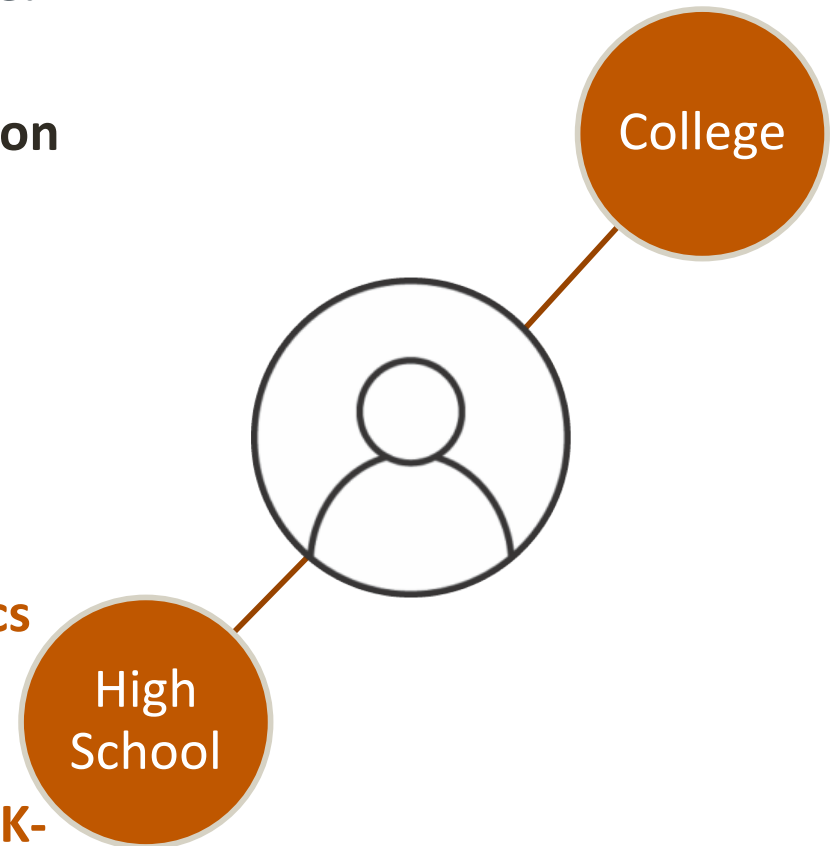
Early College High Schools

## NOT READY BY 12<sup>TH</sup> GRADE

College Prep Mathematics Course

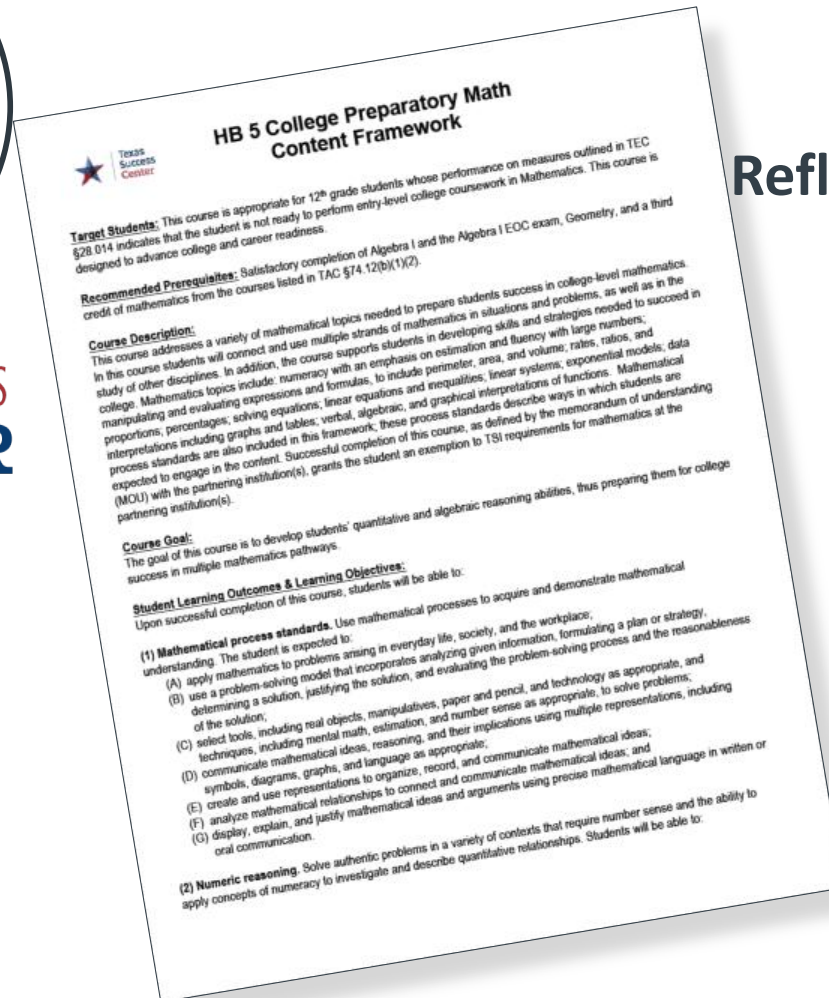
# College Prep Mathematics Course

- Designed for students who are not yet college ready in mathematics by 12<sup>th</sup> grade.
- Districts partner with at least one institution of higher education.
- Students who successfully complete the course are granted a TSI exemption at the partner institution.
- **Counts as a 4<sup>th</sup> year advanced mathematics course.**
- **Counts towards college readiness rate for K-12 districts under A-F**



# College Prep Mathematics Course

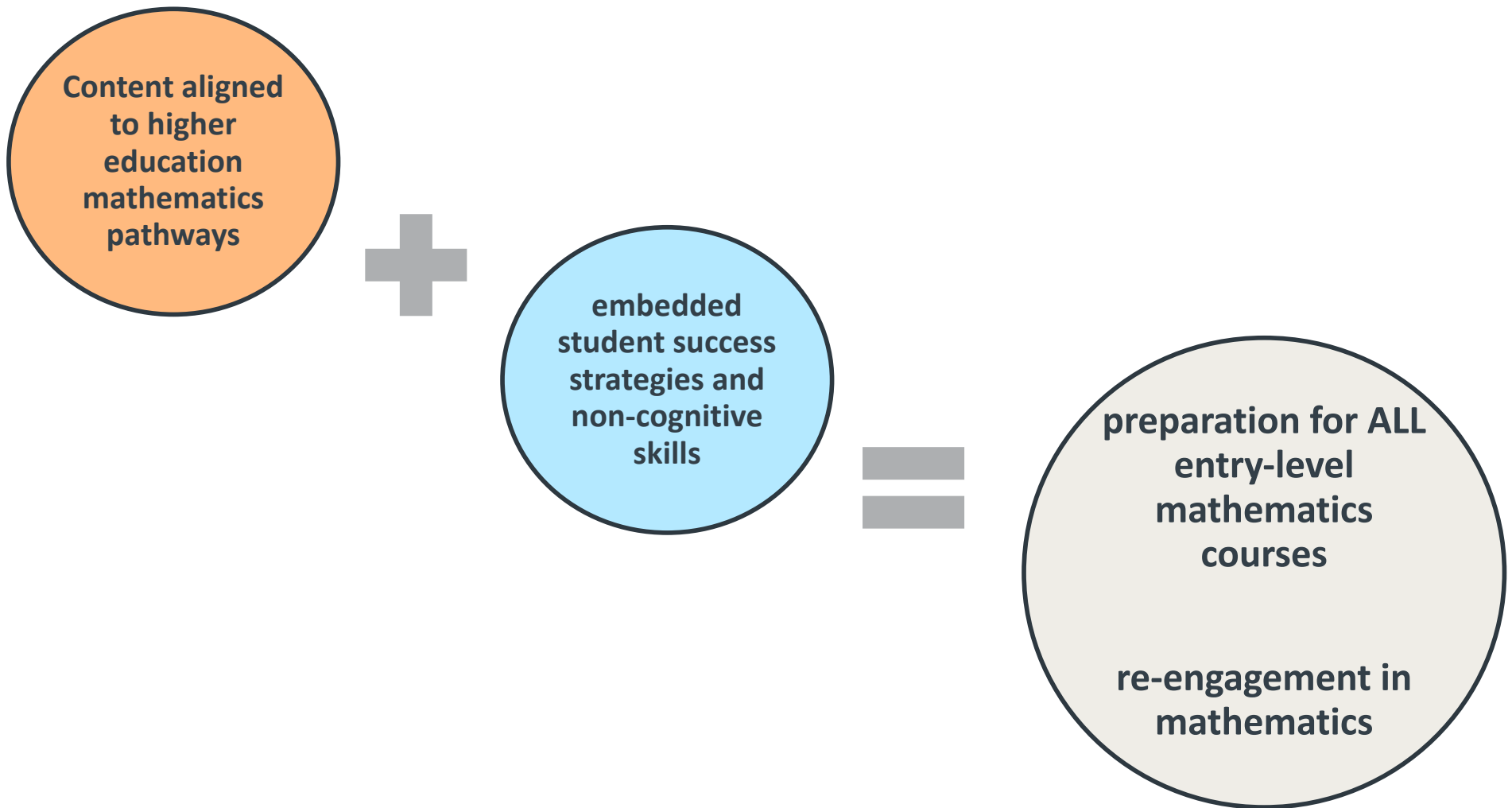
Content aligned  
to higher  
education  
mathematics  
pathways



## Reflects modern mathematics

- Applying mathematical processes
- Numeric reasoning
- Proportional reasoning
- Algebraic reasoning
- Probabilistic reasoning
- Quantitative reasoning

# College Prep Mathematics Course



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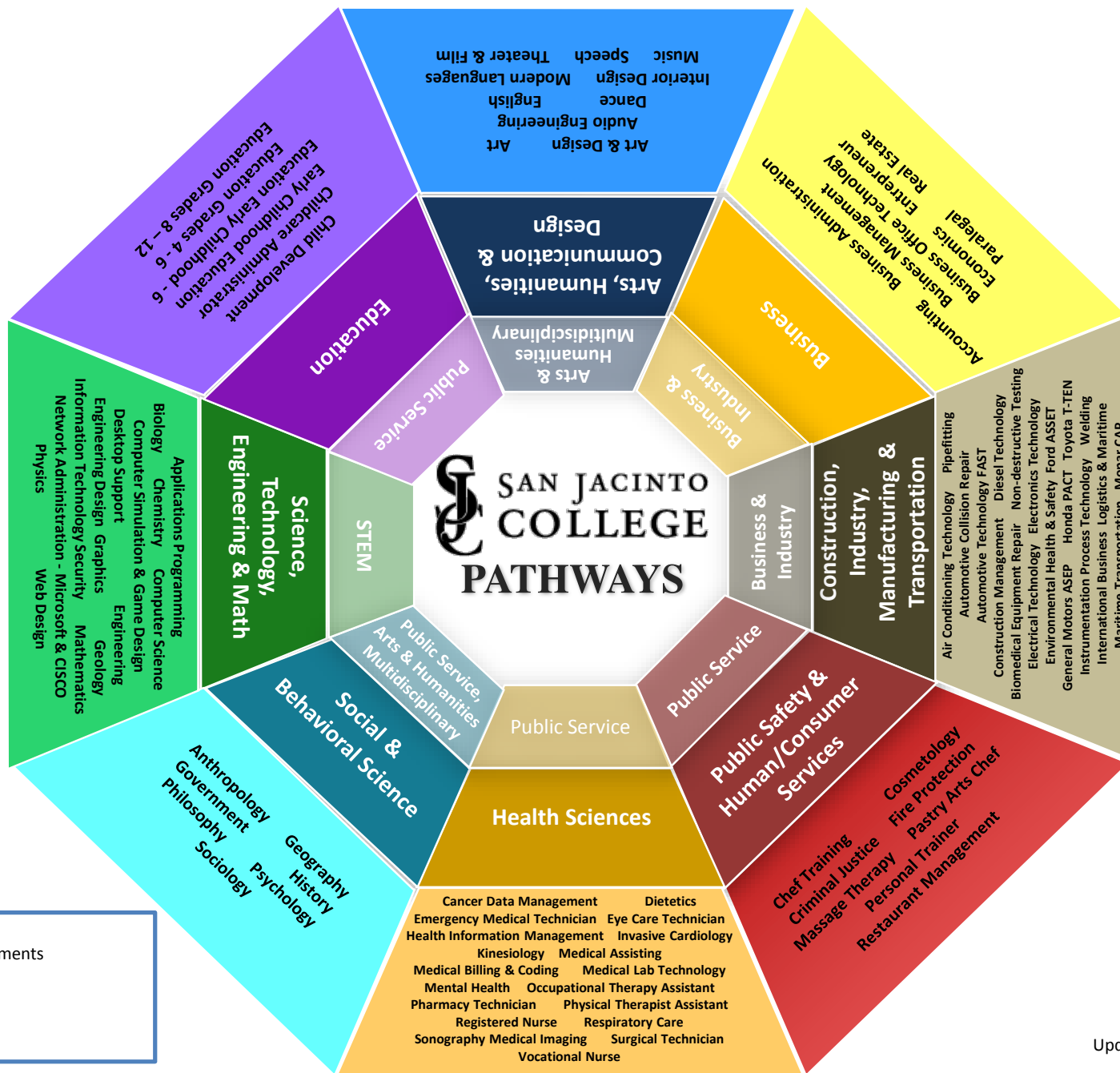
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Associate Vice Chancellor for Student Success Partnerships  
San Jacinto College

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**Inner Ring:**  
High School Endorsements

**Middle Ring:**  
San Jac Academics

**Outer Ring:**  
San Jac Pathways

Updated 11/16

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