Mathematics Dept. Presentation January 24, 2025



- Similar to AB 705 promoting access to transfer-level coursework, AB 1705 aims to promote access to English and math courses required for AA degrees.
- When students require calculus for their degree (STEM majors), colleges must enroll those students directly into calculus, or else colleges must demonstrate the benefit of enrolling those students in precalculus first.
- Precalculus courses achieve validation when:
 - The student is "highly unlikely" to succeed in calculus without taking precalculus first

~ AND ~

2) Taking precalculus increases the odds that the student will persist to and succeed in calculus.



- 1) Lowest placement group of STEM majors (HS GPA <= 2.6 OR had not passed trig, precalc, or calc) were "highly unlikely" to succeed if they were placed directly into MATH 1A.
 - Found that 62% completed MATH 1A within 2 years
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Option A: No longer offer precalculus to STEM majors.

Option B: Demonstrate that Foothill's precalculus sequence maximizes throughput to MATH 1A for STEM majors. (It does not.)

Option C: Keep MATH 48C and show that it meets the standards by July 1 2027.

Option D: Create a new innovative precalculus course and show that it meets the standards by July 1 2027.

MATH DEPT. DECISION: Option D

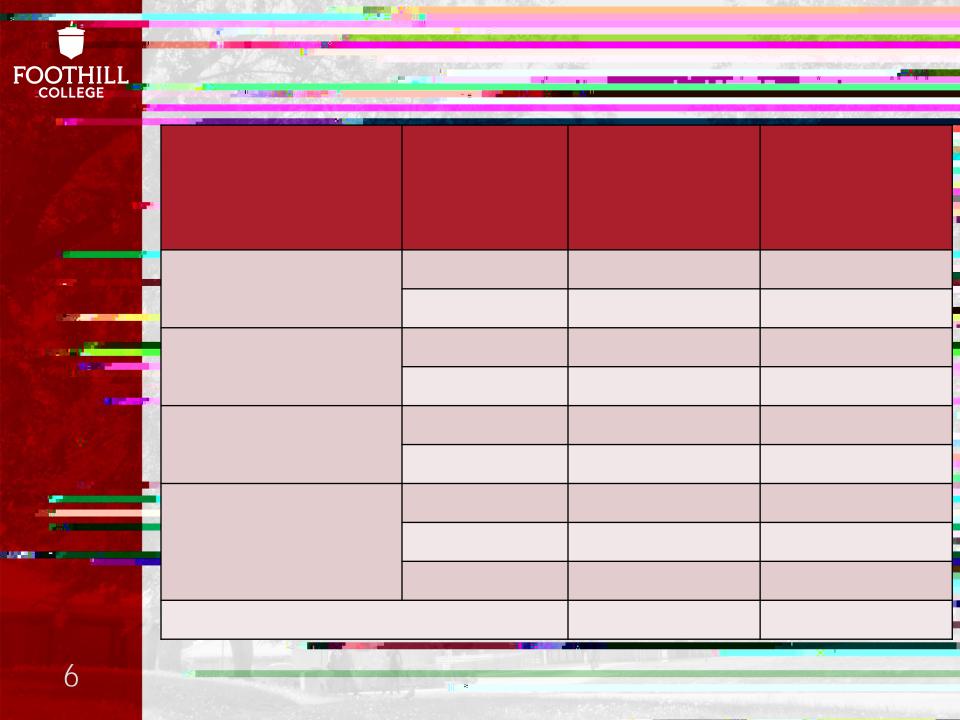
Create MATH 47

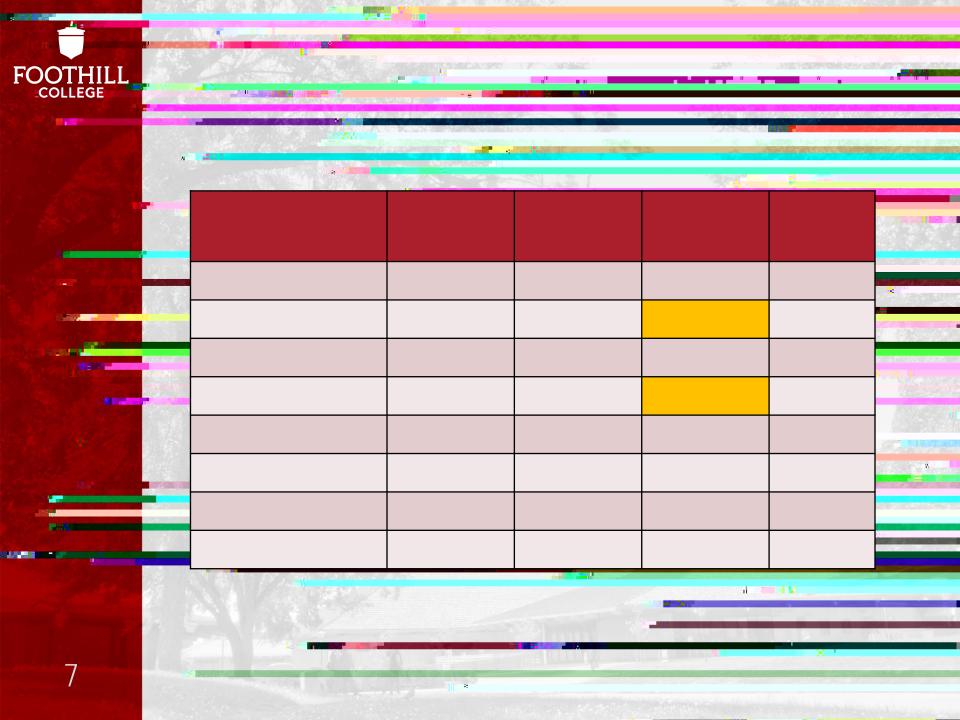


December 2024 Memo

I	ntegrated Math 4, trigonometry, or precalculus	MATH 1A Can be required to take a corequisite
	Integrated Math 3 or intermediate algebra	Up to 2 quarters of precalculus (e.g., MATH 47 or MATH 48B/C)
	Below Integrated Math 3 or intermediate algebra	Up to 3 quarters of precalculus (e.g., MATH 47 or MATH 48A/B/C)

Whatever precalculus we offer will still undergo validation and must meet AB 1705 standards by July 1, 2027







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Female	59%	25%	16%	100%
Male	59%	26%	15%	100%
Unknown	76%	10%	14%	100%

Notes: STEM majors who enrolled in at least one for-credit course between Fall '23-Spring '24 and had not enrolled in the math STEM sequence prior to Fall '23. High school students, adult learners, and students with unknown placement excluded. STEM major = major requiring MATH 1A or 1B for the degree, and/or having attempted MATH 22. List of STEM majors: Biochemistry AS, Biology AS-T, Chemistry AS, Computer Science AS and AS-T, Engineering AS, Math AS-T, Physics AS-T. Totals may not add to 100 due to rounding.



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	Yes	46%	30%	24%	100%	ĺ
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	No	67%	22%	11%	100%	

Notes: STEM majors who enrolled in at least one for-credit course between Fall '23-Spring '24 and had not enrolled in the math STEM sequence prior to Fall '23. High school students, adult learners, and students with unknown placement excluded. STEM major = major requiring MATH 1A or 1B for the degree, and/or having attempted MATH 22. List of STEM majors: Biochemistry AS, Biology AS-T, Chemistry AS, Computer Science AS and AS-T, Engineering AS, Math AS-T, Physics AS-T. Totals may not add to 100 due to rounding.