

Amarillo College Curriculum Map Template

Division:	STEM
Degree/Academic Program(s):	Mathematics (MATH.AS)
Dean:	Edie Carter
Chair/Director/Coordinator:	Penelope Davies
Submission Date:	Fall 2017
Purpose Statement:	The Mathematics Department is dedicated to providing students with a sound mathematical foundation in order to successfully complete a bachelor's degree at a transfer university or college.

Goal #1: To graduate students who demonstrate the mathematical content knowledge and skills from several foundational areas of mathematics and demonstrate understanding that the knowledge interrelates.

Program-Specific Courses	PLO #1: Students will solve problems by identifying and applying core concepts of College Algebra.	PLO #2: Students will solve problems by identifying and applying core concepts of Trigonometry	PLO #3: Students will solve problems by identifying and applying core concepts of Differential & Integral Calculus	PLO #4: Students will solve problems by identifying and applying core concepts of Differential Equations	PLO #5: Students will recognize the relationships between and among the aforementioned core concepts.
MATH-1414	D				I
MATH-1316	D	I			D
MATH-2413	M	D	I	I	D
MATH-2414		M	D	D	D
MATH-2415			D		D
MATH-2320			M	D	D

I = Introduced; D = Developed & Practiced with Feedback; M = Demonstrated at Mastery

Goal #2: To graduate students who solve real-world problems involving mathematical models.

Program-Specific Courses	PLO #1: Students will formulate mathematical models for complex real-world situations.	PLO #2: Students will use mathematical models to solve problems that are related to real-world situations.	PLO #3: Students will determine the reasonableness of their solutions and effectively communicate their analysis.	PLO #4: Students will be able to make appropriate use of technology in solving real-world problems.
MATH-1414	I	D	I	D
MATH-1316	D	D	D	M
MATH-2413	D	M	M	
MATH-2414	D			
MATH-2415	D			
MATH-2320	D			

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Goal #3: To graduate students who demonstrate analytical skills required for success at a transfer university and/or in their career.

Program-Specific Courses	PLO #1: Students will analyze mathematical arguments, determine if there are any flaws in the reasoning, and modify the argument in order to remove the flaws.	PLO #2: Students will learn from mathematical literature such as textbooks and journals.
MATH-1414	I	I
MATH-1316	D	D
MATH-2413	D	D
MATH-2414	D	D
MATH-2415	D	D
MATH-2320	D	D

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