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2020 BS Mathematics

Major-NH-MATH-Mathematics (BS) 2020

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Major-NH-MATH-Mathematics (BS)

2020

Completed

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Institutional Mission

Arkansas Tech University is dedicated to student success, access, and excellence as a responsive campus community providing opportunities for progressive intellectual development and civic engagement. Embracing and expanding upon its technological traditions, Tech inspires and empowers members of the community to achieve their goals while striving for the betterment of Arkansas, the nation, and the world.

Program Mission

The mathematics degree provides students with the knowledge and skills in mathematics that prepares them for graduate level work in mathematics or for a career in technological fields.

Program Learning Outcomes		Expectations/Target for this Outcome	Findings/Results
<p>1 Calendar Year Assessment Information 2020</p> <p>APPROVALS & INFORMATION BLOCK (**NOTE**. This block provides a brief description of actions taking place (or planned to take place) during the current assessment cycle. If there are more (or less) outcomes assessed, please alter as necessary. Additional comments are also welcome.) Point of Contact for this year’s assessment (add additional names as needed): 1) Jeanine Myers 2) APPROVALS</p> <p>----- Department Head Approval: Date: 2021 July 1 Dean Approval: Jeff Robertson Date: 2020 July 23 Office of Assessment Approval: Date:</p> <p>----- Program Level Context: (ex. Second year using Weave Assessment Management System, or ADHE Program Review conducted on 3/15/20) Student Learning Outcomes Assessed during Calendar Year 2020 (Add more as necessary): Outcome 1.4: Communication of Mathematics Curriculum Committee Proposals or Changes (erase choice not used): Y / N Assessment Data Used as Support for Change: (give Outcome #) Is Status of Project Noted in Title Bar Current? (erase choice not used): Y / N Change status in title bar above Are All Attachments Noted in Assessment Plan Added Below? (erase choice not used): Y / N</p> <p>----- Additional Comments:</p>			

Program Learning Outcomes		Expectations/Target for this Outcome	Findings/Results
<p>Outcome has action plan</p> <p>1.1 2 FINDING NOT ENTERED</p> <p>Knowledge of Mathematics</p> <p>Students will demonstrate an understanding of calculus, linear algebra, and other areas of mathematics. Courses that this PLO can be assessed: Calculus I, II, and III, Linear Algebra, Differential Equations, Introduction to Analysis, Linear Algebra, Abstract Algebra, Mathematical Modeling and Senior Seminar (MATH 2914, 2924, 2934, 3243, 3203, 4003, 4033, 4123, 4971)</p> <p>ACTION PLAN</p> <p>DUE</p> <p>no due date set</p>	<p>1.1.1</p> <p>Pretest</p>	<p>1.1.1.1 Not Reported this Period</p> <p>70 % of the students will achieve a 70% or better</p>	<p>Not Entered</p> <p>REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR NEXT STEPS</p> <p>Expectation not met. Next step is to assess the students knowledge at the end of the semester with th Posttest.</p>
	<p>1.1.2</p> <p>Posttest</p>	<p>1.1.2.1 Not Reported this Period</p> <p>70 % of the students will achieve a 70% or better</p>	<p>Not Entered</p> <p>REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR NEXT STEPS</p>
<p>1.2 2 FINDING NOT ENTERED</p> <p>Problem Solving</p> <p>Students will demonstrated an ability to formulate, analyze, and solve problems through analytical techniques. Courses that this PLO can be assessed: Calculus I, II, and III, Linear Algebra, Differential Equations, Mathematical Modeling</p>	<p>1.2.1</p> <p>Pretest</p>		

Program Learning Outcomes		Expectations/Target for this Outcome	Findings/Results
and Senior Seminar (MATH 2914, 2924, 2934, 3243, 4123, 4971)			
<p>1.2.2</p> <p>Posttest</p>	<p>1.2.2.1 Not Reported this Period</p> <p>70% of students will scores at least a 70% or better</p>	<p>Not Entered</p> <p>REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR NEXT STEPS</p>	
<p>1.3</p> <p>Communication of Mathematics</p> <p>Students will be able to communicate mathematics in both written and oral forms. Courses that can be assessed for this PLO : Discrete Mathematics, Foundations of Mathematics, Introduction to Analysis, Abstract Algebra, Senior Seminar (MATH 2703, MATH 3003, 3203, 4033, 4971)</p>	<p>1.3.1</p> <p>Senior Seminar Research Project</p>	<p>1.3.1.1 Met</p> <p>70% of the students will achieve a 70% or better</p>	<p>The following are the 4 students' grades based on the standard grading scale: A, A, A, F So, 75% of the students achieved a 70% or better.</p> <p>REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR NEXT STEPS</p> <p>The COVID pandemic affected the attendance and performance of the student who received an F. Recommendation is in-class weekly meetings with students which is required during non-pandemic years.</p>
<p>1.4 1 FINDING NOT ENTERED</p> <p>Mathematical Reasoning</p>	<p>1.4.1</p> <p>Proof Assignment</p>	<p>1.4.1.1 Not Reported this Period</p> <p>70% of the students will achieve a 70% or better</p>	<p>Not Entered</p>

Program Learning Outcomes		Expectations/Target for this Outcome	Findings/Results
<p>Students will be able to reason and use logic to develop and write valid mathematical proofs. Courses that can be assessed for this PLO : Discrete Mathematics, Foundations of Mathematics, Introduction to Analysis, Abstract Algebra (MATH 2703, 3003, 3203, 4003)</p>			<p>REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR NEXT STEPS</p>
<p>1.5 1 FINDING NOT ENTERED</p> <p>Application of Mathematics</p> <p>Students will understand how to apply modeling methods and technology to solve real-world problems. Courses that can be assessed for this PLO : Applied Statistics, Differential Equations, Linear Algebra, Mathematics Modeling. (STAT 3153, MATH 3243, 4003, 4123)</p>	<p>1.5.1 Project</p>	<p>1.5.1.1 Not Reported this Period</p> <p>70% of the students will achieve at least a 70% or better</p>	<p>Not Entered</p> <p>REFLECTION ON FINDINGS AND RECOMMENDATIONS FOR NEXT STEPS</p>