

CORE Course Proposal Form for
MATHEMATICS/APPLIED ANALYTICAL REASONING

The intent of the **Mathematics/Applied Analytical Reasoning** core area courses is to provide students with opportunities to further develop their mathematical skills, understanding, and reasoning abilities.

Please indicate the sub-area that this course is proposed to fulfill:

Traditional Mathematics Applied Analytical Reasoning

SUBMITTED BY: _____

DEPARTMENT: _____

COURSE NUMBER AND NAME: _____

NUMBER OF CREDITS: _____

PREREQUISITES: _____

CATALOG DESCRIPTION OF COURSE

(To include attributes common to all sections of this course, regardless of instructor and semester offered.)

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COURSE OBJECTIVES

Specify how the proposed course will enable students to accomplish **one or more** of the following objectives:

1. Please provide specific examples of how the course will help students to recognize, understand, utilize, integrate and communicate mathematical concepts, mathematical methods and logical reasoning.

2. Please provide specific examples of how the course will help students to apply mathematical concepts, mathematical methods, and mathematical reasoning within an analytic framework.

3. Please provide specific examples of how the course will help students to conceptualize and utilize formal mathematical and formal logical reasoning.

4. Please provide specific examples of how the course will help students to conceptualize and utilize algorithms and formal mathematical structures.

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COURSE REQUIREMENTS

For courses proposed for the Traditional Mathematics sub-area, specify how the course will meet **both** of the Course Requirements for Traditional Mathematics.

For courses proposed for the Applied Analytical Reasoning sub-area, specify how the course will meet **one or more** of the Course Requirements for Applied Analytical Reasoning.

Course Requirements for Traditional Mathematics:

1. Please provide specific examples of how the course will introduce traditional mathematical concepts, constructs, systems, algorithms, and methods of inquiry and analysis.

2. Please provide specific examples of how the course will provide an environment where students can construct, investigate, learn, and/or apply those attributes described in Course Requirement 1 above.

Course Requirements for Applied Analytical Reasoning:

1. Please provide specific examples of how the course will be characterized by the systematic quantitative, probabilistic, or statistical analysis of a field, area or topic.

2. Please provide specific examples of how the course will be characterized by the investigation of formal logical reasoning.

3. Please provide specific examples of how the course will be characterized by the investigation of algorithms and formal structures.