

**Arizona State University Criteria Checklist for**  
**MATHEMATICAL STUDIES [MA]**

**Rationale and Objectives**

The **Mathematical Studies** requirement is intended to ensure that students have skill in basic mathematics, can use mathematical analysis in their chosen fields, and can understand how computers can make mathematical analysis more powerful and efficient. The **Mathematical Studies** requirement is completed by satisfying both the **Mathematics [MA]** requirement and the **Computer/Statistics/Quantitative Applications [CS]** requirement explained below.

The **Mathematics [MA]** requirement, which ensures the acquisition of essential skill in basic mathematics, requires the student to complete a course in College Mathematics, College Algebra, or Precalculus; or demonstrate a higher level of skill by completing a mathematics course for which a course in the above three categories is a prerequisite.

The **Computer/Statistics/Quantitative Applications [CS]** requirement, which ensures skill in real world problem solving and analysis, requires the student to complete a course that uses some combination of computers, statistics, and/or mathematics.\* Computer usage is encouraged but not required in statistics and quantitative applications courses. At a minimum, such courses should include multiple demonstrations of how computers can be used to perform the analyses more efficiently.

\*CS does not stand for computer science in this context; the “S” stands for statistics. Courses in computer science must meet the criteria stated for CS courses.

Approved: April 2014

Proposer: Please complete the following section and attach appropriate documentation.

<b>ASU--[MA] CRITERIA</b>			
<b>A MATHEMATICS [MA] COURSE MUST SATISFY ALL OF THE FOLLOWING CRITERIA:</b>			
YES	NO		Identify Documentation Submitted
<input type="checkbox"/>	<input type="checkbox"/>	<b>1.</b> Mathematics course with a minimum prerequisite of Intermediate Algebra or a course already approved as satisfying the MA requirement.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>2.</b> Applies mathematical skills in the solution of real life problems.	
		<b>3.</b> Introduces or makes significant use of all of the following mathematical skills and concepts:	
<input type="checkbox"/>	<input type="checkbox"/>	<b>a.</b> Manipulation of mathematical expressions.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>b.</b> Functions and their various forms of expression (algebraic, graphic, and numeric).	
<input type="checkbox"/>	<input type="checkbox"/>	<b>c.</b> Problem solving using mathematics.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>d.</b> Quantitative literacy.	
		<b>4.</b> Acceptable courses include (check applicable course):	
<input type="checkbox"/>	<input type="checkbox"/>	<b>a.</b> College Mathematics	
<input type="checkbox"/>	<input type="checkbox"/>	<b>b.</b> College Algebra	
<input type="checkbox"/>	<input type="checkbox"/>	<b>c.</b> Precalculus	
<input type="checkbox"/>	<input type="checkbox"/>	<b>d.</b> Any mathematics course with any of its prerequisite courses satisfying the MA criteria.	

Course Prefix	Number	Title	General Studies Designation

Explain in detail which student activities correspond to the **specific** designation criteria.  
 Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)