

Advisor Information for General Education Mathematics Requirement

This document contains information for advisors which is designed to supplement the catalog descriptions of the courses. In this document you will find:

- 1) A list of courses which will fulfill the general education core beginning with the 2004-2005 Catalog.
- 2) A list of other mathematics courses students *might* need, but which will *not* satisfy the mathematics core requirement.
- 3) Policies for the transition period from the old core to the new core.

Advisors are also urged to consult the Web page “Choosing a Mathematics Course at APSU,” available from a link on the Mathematics Department web page (<http://www.apsu.edu/mathematics>).

1) Courses which fulfill the general education core requirement

Note: The “Guidelines for Placement” are designed to supplement the catalog prerequisites. For example, the catalog prerequisite for Math 1810 is “a working knowledge of two years of high school algebra and geometry.” How do you assess whether or not a student has a “working knowledge?” The “Guidelines for Placement” contain ACT score information which is designed to help you.

The “Guidelines for Placement” are general guidelines only. There may be exceptions. On the first day of class, every effort is made to ensure that each student is in a class that is appropriate for him/her.

COURSE	NOTES	INTENDED AUDIENCE	GUIDELINES FOR PLACEMENT
MATH 1010 Mathematical Thought and Practice (3 hrs.)	This course examines how different areas of mathematics explain and shape our world, as well as how we view and experience it. Exact content will vary, but will consist of a selection of three to five topics chosen from various areas of mathematics.	Students with a major that has a non-specific mathematics requirement.	High school credit in Algebra I, geometry and Algebra II AND Math ACT score of 19 or above OR one of DSPM 0850, 0880

MATH 1530 Elements of Statistics (3 hrs.)	This course addresses statistical concepts and methods that are useful in a variety of settings when there is a need to describe and analyze data, interpret trends, make predictions, and other such activities.	Students with a major that requires analysis and interpretation of data.	High school credit in Algebra I, geometry and Algebra II AND Math ACT score of 19 or above. OR one of DSPM 0850, 0880
MATH 1730 Precalculus (4 hrs.)	This course addresses trigonometric, logarithmic, exponential, power, and other functions necessary for success in Math 1910 (Calculus and Analytic Geometry).	Primarily for students who need trigonometry before taking MATH 1910. This course might also be attractive to other students who have a strong understanding of high school algebra.	College Algebra OR Math ACT score of 21 or above
MATH 1810 Elements of Calculus (3 hrs.)	This course addresses the applications of calculus to a wide variety of settings that do not require trigonometry, such as business and medicine.	Students who need a calculus course that does not require trigonometry.	College Algebra OR Math ACT score of 21 or above
MATH 1910 Calculus and Analytic Geometry (5 hrs.)	This course addresses concepts of calculus in abstract and real-world settings. Understanding of trigonometry is necessary for success in this course.	Students whose course of study requires trigonometry-based calculus, such as the natural sciences.	Working knowledge of trigonometry and Math ACT score of at least 23 OR Precalculus (Math 1730)

MATH 1420 Structure of Mathematical Systems (3 hrs.)	This course addresses concepts of rational number, geometry, and probability and statistics, with emphasis on communication and mathematical reasoning.	Students who are seeking certification in elementary school.	MATH 1410
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2) Other math courses students *MIGHT* need that will *NOT* satisfy the core requirement

COURSE	NOTES	INTENDED AUDIENCE	GUIDELINES FOR PLACEMENT
MATH 1710 College Algebra (3 hrs.)	A study of functions and their representations with emphasis on the use of functions in problem solving and modeling contexts. Topics include polynomial functions, rational functions, power and root functions, inverse functions, and systems of equations.	Students who are not quite ready for Math 1730 or Math 1810 but who need to be in a calculus track OR Students seeking elementary licensure who are seeking a math cognate.	Math ACT score of 19 or above OR DSPM 0850 OR DSPM 0880
Math 1410 Structure of Mathematical Systems (3 hrs.)	This course addresses various number systems with emphasis on number sense and communication of mathematical reasoning. It is the prerequisite for MATH 1420.	Students seeking elementary or middle school licensure.	High school Algebra I, Algebra II, geometry OR DSPM 0850 OR DSPM 0880

3) Policies for the transition period from the old core to the new core

Students **transferring to the new bulletin with the new general education core** will have three options:

- 1) If they have *completed* the old math core, it will be accepted for the new bulletin.
- 2) If they have taken a portion of the old math core but not completed it, they may either complete the old core or meet the math option of the new core.
- 3) If they have not taken any of the old math core, they will need to complete the new core.

If a student plans to graduate under a **pre-2004-2005 bulletin**, then that student must satisfy the mathematics core indicated in the bulletin for that earlier year. In particular, *the student cannot satisfy the old mathematics core with three hours of the new core.*

Advisors should be aware that the following courses are being phased out:

Math 1610, Math 1620
Math 1110, Math 1120
Math 1720

Students who need these courses in order to satisfy the old core should be advised to enroll in them at the earliest opportunity.