

M1903: Mathematics for Elementary Teaching I and II (3-4 semester credits)

Focuses on mathematical reasoning and problem solving. Topics are selected from: sets, functions and logic, whole numbers, integers, rational numbers, irrational numbers and the real number system (e.g., number theory, probability, statistics, measurement and non-metric geometry). The two-course sequence meets the requirements for state certification in elementary teaching. Fulfills the Illinois Transferable General Education Core Curriculum (iTransfer Gen. Ed.) requirement only for students seeking state certification as elementary teachers or special education teachers. Prerequisite: C or better in intermediate algebra and geometry.

*Please submit the syllabi for both courses when submitting to this identifier. The IAI approval goes on the second course of the sequence.*

Minor revision to description (removal of “by using calculators and microcomputers in problem-solving”) – Spring 2021 – 04/21/2021 – effective fall 2021.

New

M1900-B: Calculus for Business and Social Sciences (4-5 semester credits)

This calculus course is designed specifically for students in business and the social sciences and does not count toward a major or minor in mathematics. It emphasizes applications of the basic concepts of calculus rather than proofs. Topics must include limits; techniques of differentiation applied to polynomial, rational, exponential, and logarithmic functions; **partial derivatives and applications involving maxima and minima of functions in more than one variable**; and elementary techniques of integration including substitution and integration by parts. Business and social science applications are stressed throughout the course. Prerequisite: College Algebra with a grade of C or better. The panel has compared the IAI GECC M1 900-B descriptor against the AP Calculus AB and BC exams and determined there is not a match. Feb 2016

IMPORTANT SPECIAL NOTE: This course's credit hours increased to 4-5 semester credit hours from 3-5 semester credits on Jan. 1, 2017.

Revised information in description regarding partial derivatives and applications – Spring 2021 – 04/23/2021 – effective Fall 2021 – ***panel may make further adjustments after further discussions at institutions in Spring of 2021.***

**OLD**

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of functions; and elementary techniques of integration including substitution and integration by parts. Business and social science applications are stressed throughout the course. Prerequisite: College Algebra with a grade of C or better. *The panel has compared the IAI GECC M1 900-B descriptor against the AP Calculus AB and BC exams and determined there is not a match. Feb 2016*

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