MATHEMATICS (MA)

MA 111U (3 credit hours)
Contemporary Mathematics
An introduction to concepts and applications of mathematics, with examples drawn from such areas as voting methods, apportionment, consumer finance, graph theory, tilings, polyhedra, number theory and game theory. This course is not avaialable for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 123, 162, 201 and 202. This course does not serve as a Pre-requisite for any calculus course. Credit not available on that basis of special examination. Lecture: 3 credits (45 contact hours).
Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108, or math placement test.
Attributes: QR - Quantitative Reasoning, Credit not permitted via STEP exam, University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky

MA 113U (4 credit hours)
Calculus I
A course in one-variable calculus, including topics from analytic geometry. Derivatives and integrals of elementary functions (including the trigonometric functions) with applications. Lecture, three hours; recitation, two hours per week. Students who enroll in MA 113 based on their test scores should have completed a year of pre-calculus study in high school that includes the study of the trigonometric functions. Note: Math placement test recommended. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Pre-requisite: Math ACT of 27 or above, or math SAT of 620 or above, or a grade of C or better in MA 109 (UK) and MA 112 (UK), or a grade of C or better in MA 110 (UK), or consent of the department.
Attributes: QR - Quantitative Reasoning, Credit not permitted via STEP exam, University Course (University of Kentucky)
Components: DIS: Discussion, LEC: Lecture
University Course: University of Kentucky

MA 162U (3 credit hours)
Finite Mathematics and Its Applications
Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, probability. Emphasis on setting up mathematical models from stated problems. Lecture 3.0 credits (45 contact hours).
Pre-requisite: MA 109 (UK) or equivalent.
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky

MA 213U (4 credit hours)
Calculus III
MA 213 is a course in multivariate calculus. Topics include three dimensional vectors calculus, partial derivatives, double and triple integrals, sequences, and infinite series. Lecture, 3 hours; recitation, 2 hours per week. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Pre-requisite: A grade of C or better in MA 114 (UK) or equivalent.
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
Components: DIS: Discussion, LEC: Lecture
University Course: University of Kentucky

MA 214U (3 credit hours)
Calculus IV
MA 214 is a course in ordinary differential equations. Emphasis is on first and second order equations and applications. The course includes series solutions of second order equations and Laplace transform methods. Lecture: 3.0 credits (45 contact hours).
Pre-requisite: MA 213 or equivalent.
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky