STATISTICS (STA)

STA 111 (3 credit hours)
Sport Statistics
Introduces students to concepts within the sports world where math and statistics skills are applied. Includes analysis of sports formulas, processes, and calculations. Applies mathematical models and ranking methods to the sports world. Assumes students will have a general knowledge and interest in sports. Lecture: 3.0 credits (45 contact hours).
Pre- or co-requisite: MAT 65.
Components: LEC: Lecture

STA 151 (3 credit hours)
Introduction to Applied Statistics
Serves as an entry-level introduction to applied statistics useful for a variety of fields. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. Emphasizes understanding the uses and misuses of statistics in the real world. (Same as MAT 151.) (Students may not receive credit for both this course and any of the following: MAT 151, STA 200, STA 210, STA 215.) Lecture: 3 credit hours (45 contact hours).
Pre-requisite: College Readiness in Mathematics.
Attributes: QR - Quantitative Reasoning
Components: LEC: Lecture

STA 210 (3 credit hours)
Statistics: A Force in Human Judgement
Examines the interaction of the science and art of statistics in everyday life emphasizing examples from the social and behavioral sciences including the nature, scope, limitations, and interpretation of statistics. Lecture: 3 credits (45 contact hours).
Pre-requisite: MAT 146 or MAT 150 or equivalent.
Attributes: QR - Quantitative Reasoning
Components: LEC: Lecture

STA 210U (3 credit hours)
Making Sense of Uncertainty: An Introduction to Statistical Reasoning
The goal of this course is to help students develop or refine their statistical literacy skills. Both the informal activity of human inference arising from statistical constructs, as well as the more formal perspectives on statistical inference found in confidence intervals and hypothesis tests are studied. Throughout, the emphasis is on understanding what distinguishes good and bad inferential reasoning in the practical world around us. Lecture: 3.0 credits (45 contact hours).
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky

STA 220 (3 credit hours)
Statistics
Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Includes theoretical distributions, statistical estimation, and hypothesis testing. Introduces simple linear regression and correlation. Lecture: 3 credits (45 contact hours).
Pre-requisite: MAT 150 or equivalent, or MAT 146 or MAT 141 or equivalent with a grade of C or higher.
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules
Components: LEC: Lecture

STA 221 (1 credit hours)
Additional Topics in Statistics
Serves as an extension of STA 220. Includes additional bivariate statistical topics required at some universities. Lecture: 1 credit (15 contact hours).
Pre- or co-requisite: STA 220.
Attributes: Other
Components: LEC: Lecture

STA 251 (3 credit hours)
Applied Statistics
Serves as the completion course in the statistics pathway. Covers principles of probability, discrete and continuous probability distributions, statistical estimation, hypothesis testing, linear regression, comparisons of populations, goodness of fit, and analysis of variance. Software will be used to aid in statistical computations. (Students may not receive credit for both this course and any of the following: STA 200, STA 210, STA 215, STA 220, STA 291.). Lecture: 3 credits (45 contact hours).
Pre-requisite: MAT 151 or STA 151 or MAT 161.
Attributes: QR - Quantitative Reasoning
Components: LEC: Lecture

STA 296U (3 credit hours)
Statistical Methods and Motivations
Introduction to principles of statistics with emphasis on conceptual understanding. Students will articulate results of statistical description of sample data (including bivariate), application of probability distributions, confidence interval estimation and hypothesis testing to demonstrate properly contextualized analysis of real-world data. Lecture: 3.0 credits (45 contact hours).
Pre-requisite: MA 113, MA 123, MA 137, or equivalent.
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
Components: LEC: Lecture
University Course: University of Kentucky