You   and   Mathematics & Statistics at Smith

Less than 3 yrs HS math (Or some Adas) $\implies$

101F: Math Skills Studio. For prospective teachers, Adas, or students who want to solidify developmental math background and/or grow confidence in foundational skills. *By permission only.*

QSK 102 S: Quantitative Skills in Practice. For prospective teachers, non-science majors, and students who want to refresh quantitative skills.

3 yr HS math $\implies$

102 F: Elementary Functions. A precalculus course for students who plan to take Calculus but lack sufficient preparation. Also good for those who want a better understanding of the mathematical ideas in the physical and social sciences.

105 F: Discovering Mathematics. A cultural introduction to mathematics. Students at all levels and from all disciplines are welcome. Topic varies.

SDS 109 F,S: Communicating with Data. Describes the foundations of information visualization and effectively communicating with data.

PreCalc or equiv. (4 yrs HS math) 3 or less AB test $\implies$

111 F,S: Calculus I. Derivatives (rate of change) and Integrals (accumulation) studied geometrically, algebraically, numerically, linguistically, theoretically. (Required for ECO, EGR, MTH, PHY majors)

SDS 192 F,S: Introduction to Data Science. Introduces software tools to extract meaning from complex data sets.

SDS 201 F: Statistical Methods for Undergraduate Research. statistical methods used in empirical research. (Satisfies requirements for PSY and SDS.)

1 sem. coll. calculus 3,4 on AB test $\implies$

112 F,S: Calculus II. Covers techniques of integration, differential equations, power series. (Required for EGR, MTH, PHY majors)

AB Calc (4 or 5) or equiv. or A levels or IB math SL $\implies$

153 F,S: Discrete Mathematics. covers a range of topics: counting, cryptography, mathematical algorithms. Making a convincing mathematical argument. Some of the math behind computer science. (Required for CSC and MTH majors).

220 F,S: Introduction to Probability and Statistics. An application-oriented introduction to modern statistical inference, with a wide variety of applications. (Satisfies basis req. for BIO, EGR, ESP, NSC, PSY, SDS).

BC Calc or equiv. or IB math HL $\implies$

211 F,S: Linear Algebra. Systems of linear equations and the algebraic and geometric theory behind. We recommend 153 first or concurrently. (Required for SDS and MTH majors.)

212 F,S: Multivariable Calculus. A continuation of Calculus I and II, but in 3 dimensions. (Required for EGR and MTH majors)

Other courses possible, including 153 and 220. See a member of the department.

4 or 5 on AP stats exam or equiv. $\implies$

290 S: Research Design and Analysis. A survey of statistical methods needed for scientific research, including planning data collection and data analyses that provide evidence about a research hypothesis.

291 F,S: Multiple Regression. Includes methods for choosing, fitting, evaluating, and comparing regression models and analyzes data sets taken from the natural, physical, and social sciences.