DATA, MODELING, AND INFERENCE

STATISTICS

OnRamps Statistics is a data analysis course for high school juniors and seniors seeking to develop the quantitative reasoning skills and habits of mind necessary to succeed in the higher education environment. This course will target conceptual understanding and hone highly relevant mathematical skills through scaffolded introduction to statistical methodologies, and strategic lab exercises that engage students in hands-on analysis of real data. Valuable programming and coding skills are acquired as a means to conducting these analyses, giving students a solid foundation in data science. Collaborative problem solving is highly valued, and assessments will guide students through self-reflective analyses of their own preparedness and depth of understanding.

Students will experience high-quality curriculum designed by the faculty at The University of Texas at Austin. Students can earn three hours of UT credit with feedback and assessment provided by UT course staff.

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BIG IDEAS

DATA

Data analysis begins with determining the type of variables contained in the data, then describing and visualizing them in an appropriate way. The next step is identifying the strength and form of the relationships between two variables.

INFERENCE

Decisions about populations are made by assessing sample data. First, a question is asked, then data is collected, and finally the data is used to infer something about the population.

MODELING

Data from a sample is used to create formulas which "model" the relationships between variables and allow generalization to the greater population. These models can then be used to predict the outcome of one variable given its relationship to another or estimate aspects of the population.

TRANSFERABILITY

3 College Credits
UT Course Code: SDS 302

PRE-REQUISITES

Algebra I
Geometry and Algebra II (preferred)

TECHNOLOGY

Desktop Computer or Laptop Access
Installation of additional software may be required.

PEDAGOGY

Flipped Classroom