DISCOVERY PRECALCULUS

A CREATIVE AND CONNECTED APPROACH

In Discovery Precalculus, students will deepen and extend their knowledge of functions, graphs, and equations from their high school algebra and geometry courses so they can successfully work with the concepts in a rigorous university-level calculus course. This course is designed to push students well beyond "drill and kill" type exercises, with an emphasis on unpacking mathematical definitions and making logical arguments to their peers.

Each unit consists of a series of explorations designed to engage students and empower them to develop their problem-solving skills. In each exploration, students will create connections with prior concepts in developing the current topic. Students will experience high-quality curriculum designed by the faculty at The University of Texas at Austin. The pedagogy of the course, Inquiry-Based Learning, encourages students to take an active role in the construction of their learning.

LEARN MORE »

OnRamps

DISCOVERY PRECALCULUS

BIG IDEAS

FUNCTIONS & PATTERNS

Exploring the definition and properties of functions in a tabular, analytical, and graphical manner

ALGEBRA & GEOMETRY

Exploring conics from their definitions, modeling with matrices, and understanding exponential functions

TRIGONOMETRY

Exploring the conceptual transformation from right triangles to identities to circles to graphs to rotational motion

RATES OF CHANGE & LIMITS

Qualitative introduction to Differential Calculus by exploring limits and rates

OTHER COORDINATE SYSTEMS

Exploring motion with parametric and polar functions, and making connections to vectors and complex numbers

SEQUENCES & SERIES

Understanding and applying sequences and series to the concept of convergence, binomial theorem, and induction

TRANSFERABILITY

3 College Credits
UT Course Code: M 305G
TCCN: MATH 2312

PRE-REQUISITES

Algebra II
Geometry

TECHNOLOGY

Computer, Laptop, Chromebook, or Tablet Access

PEDAGOGY

Inquiry-Based Learning