Math 1

Catalog Description

1. Precalculus (4) Lecture, three hours; discussion, one hour.

Preparation: three years of high school mathematics. Requisite: successful completion of Mathematics Diagnostic Test. Function concept. Linear and polynomial functions and their graphs, applications to optimization. Inverse, exponential, and logarithmic functions. Trigonometric functions. P/NP or letter grading.

Textbook

D. Cohen, *Precalculus with Unit-Circle Trigonometry*, 4th Ed., Brooks/Cole Company.Rueger, *Student's Solutions Manual,* Brooks/Cole Company. (Recommended supplement)

Schedule of Lectures

Lecture	Section	Topics
1	2.3, 2.4	Inequalities
2	3.1	The Definition of a Function
3	3.2	The Graph of a Function
4	3.3, 3.4	Techniques in Graphing
5	3.5	Methods of Combining Functions. Iteration
6	3.6	Inverse Functions
7	4.2	Quadratic Functions
8	4.4	Applied Functions: Setting Up Equations
9	4.5	Maximum and Minimum Problems
10	5.1	Exponential Functions
11	5.2	The Exponential Function $y = e^x$
12	5.3	Logarithmic Functions
13	5.4	Properties of Logarithms
14	5.7	Exponential Growth and Decay
15	6.1	Radian Measure
16	6.2	Trigonometric Functions of Angles
17	6.3	Evaluating the Trigonometric Functions
18	6.4	Algebra and the Trigonometric Functions
19	6.5	Right-Triangle Trigonometry
20	7.1	Trigonometric Functions of Real Numbers
21	7.2	Graphs of the Sine and Cosine Functions
22	7.3	Graphs of $y = A \sin(Bx - C)$ and $y = A \cos(Bx - C)$

23	8.1	The Addition Formulas
24	8.2	The Double-Angle Formulas
25	8.5	The Inverse Trigonometric Functions
26	8.5	The Inverse Trigonometric Functions

Outline update: D. Cohen 7/98

For more information, please contact undergraduate student services