



## Exam for Credit Information Precalculus Syllabus

*No calculators will be allowed for this exam*

### Units of Study

#### Quarter 1:

- Function Families: transformations, composite functions, inverses
- Polynomial and Rational Functions: finding zeros using division, complex numbers, non-linear inequalities

#### Quarter 2:

- Exponential and Logarithmic Functions:
- Trigonometry: unit circle, graphs, inverses, solving equations, proving identities, sum/difference formulas

#### Quarter 3:

- Trigonometry: Law of Sines and Law of Cosines (including the ambiguous case of SSA)
- Systems of Equations: linear and non-linear
- Partial Fractions: decomposition
- Sequences and Series
- Induction
- Probability: Permutations, combinations, Binomial Theorem, and Independent events
- Binomial Theorem
- Vectors

#### Quarter 4:

- Matrices
- Conic Sections
- Polar Graphing
- Limits
- Introduction of Calculus: definition of derivative, summations

### Resource

- ❖ Precalculus with Limits, 2e; Larson; Cengage (2011)

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