# Hilliard City Schools
## PreCalculus
## Course Proficiency Study Guide

**I.    Course Proficiency Purpose:**

The purpose of this study guide is to aid the students who wish to take the proficiency assessment for the credit flex option. Items that the student will be required to know for proficiency will be administered in a 2.5 hour written exam.

**II.    Description of the Assessment Format:**

The Assessment (worth a total of 143 points) consists of:

- Part I - 75 select response questions (85 total points)

- Part II - 19 extended response/graphing questions (51 total points)

- Part III - 7 Unit Circle Questions (7 points total) - no calculator allowed

You may bring your own scientific (non-graphing) calculator which may be used for Parts I and II of the assessment. However, one will not be provided for you and you may not use a personal device connected to the internet. Extra paper and graph paper will be provided but no other reference sheet will be provided or allowed.

**III.    Proficiency Content:**

The content of this exam comes from the HCSD PreCalculus Curriculum and Learning Targets. Below are the units for this course and the percentage of the exam represented in each unit.

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|---|---|
| Unit 1: Parent Functions | (06%) |
| Unit 2: Polynomial, Power, & Rational Functions | (23%) |
| Unit 3: Exponential & Logarithmic Functions | (15%) |
| Unit 4: Systems & Matrices | (03%) |
| Unit 5: Trigonometric Functions | (22%) |
| Unit 6: Analytic Trigonometry | (08%) |
| Unit 7: Applications of Trigonometry | (10%) |
| Unit 8: Conic Sections | (05%) |
| Unit 9: Discrete Mathematics | (08%) |

A detailed description of each math standard found in the HCSD PreCalculus Learning Targets can be found on Ohio Department of Education's website. Use the QR Code to the right for quick access to these standards.



**IV.    Suggested Resources:**

- *Highly Suggested Text:* Precalculus - Graphical, Numerical, Algebraic (Demana, Waits, Foley, & Kennedy) - 7th edition or higher OR comparable text
- *For Additional Support & Practice:*
  https://www.khanacademy.org/math/precalculus