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## **Option ii Honors Precalculus Summer Course Outline**

### **Course Materials**

Students should bring a notebook, and a TI-84 or TI-Nspire Graphing Calculator. The Learning Center provides the text, Advanced Mathematics: Precalculus with Discrete Mathematics and Data Analysis. Depending on the lesson, students may be given a chromebook for eBook classwork. The teacher will add supplementary materials when needed.

Every effort is made to follow the New Jersey Department of Education Model Curriculum Project and to prepare students for exams at their schools in August. (Please see: [www.nj.gov/education/modelcurriculum/math/algebraII.shtml](http://www.nj.gov/education/modelcurriculum/math/algebraII.shtml).)

The course topics cover, but are not limited to, the following: linear, quadratic and polynomial functions; inequalities; exponents and logarithms; analytic geometry; trigonometric functions, equations and applications; triangle trigonometry; trigonometric addition formulas; polar coordinates; complex numbers; vectors and determinates; sequences and series; matrices; combinatorics; probability; statistics; curve fitting and models; limits, series and iterated functions.

### **Course Description**

This course is an accelerated study of high school Honors Precalculus and is meant to fulfill the credit requirement. It is a six week program, Monday through Friday, four hours per day, or 20 hours per week, totaling 120 hours.

The course follows the NJ DOE Model Curriculum Project, while accounting for possible variations in schools represented by attending students.

Student progress is assessed daily. Homework is required and reviewed every day. There are two tests per week, lasting either an hour or ninety minutes depending on material covered.

On days when there is no test, quizzes will be given. Course grade depends 60% on test performance, 35% on quizzes, and 5% on homework. Also, students must show all their homework and classwork to receive full credit.