**2843 Precalculus or Precalculus – PAP/Dual**

**Credit: 1**

**Prerequisite: Geometry and Algebra II**

Precalculus is the preparation for calculus. The course

approaches topics from a function point of view, where

appropriate, and is designed to strengthen and enhance

conceptual understanding and mathematical reasoning

used when modeling and solving mathematical and real world problems. Students systematically work with

functions and their multiple representations. The study of Precalculus deepens students' mathematical

understanding and fluency with algebra and trigonometry

and extends their ability to make connections and apply

concepts and procedures at higher levels. Students

investigate and explore mathematical ideas, develop

multiple strategies for analyzing complex situations, and

use technology to build understanding, make connections

between representations, and provide support in solving

problems.

**2833 Advanced Quantitative Reasoning**

**Credit: 1**

**Prerequisite: Geometry and Algebra II**

Students will develop and apply skills necessary for college, careers, and life. Course content consists primarily of applications of high school mathematics concepts to prepare students to become well-educated and highly informed 21st century citizens. Students will develop and apply reasoning, planning, and communication to make decisions and solve problems in applied situations involving numerical reasoning, probability, statistical analysis, finance, mathematical selection, and modeling with algebra, geometry, trigonometry, and discrete mathematics.

**7560 Statistics and Business Decision Making**

**Credit: 1**

**Prerequisite: Geometry and Algebra II**

How can a business lessen the chances of someone becoming ill from using their products? What steps can be

taken to assure all employees are safe in case of a fire?

Managing these and other risks involves lessening the

negative impacts and preventing financial loss and

personal injuries. This course will help student start to

understand what actions businesses must take to manage

risk. Learn how successful businesses use statistics to

forecast what may happen in the future and how to

develop strategies to avoid the dangers. This course is a

Career and Technical Education funded course.

**2783 College Preparatory Math**

**Credit: 1**

**Prerequisite: Three high school math credits and**

**student’s “college ready” math status not confirmed by TSI or other “college ready” measures**

Developed in partnership with WCJC, the first semester provides preparation in basic math skills required for the study of Intermediate Algebra at the college level, and the second semester prepares students for College Algebra.

Students must earn a final exam grade of 70% or above

for the award of credit for each semester. To ensure

transferability of the course grade to WCJC, the student’s

grade for each semester must be 75 or higher. The first

semester (fall) on the student transcript will correspond to

Math 0308 and the second semester (spring) will

correspond to Math 0312. Semester exam exemption will not be available for this course.

**8321CW Digital Electronics (DE) – PLTW**

**Credit: 1**

**Prerequisite: A PLTW Engineering Specialization course**

Digital Electronics is the foundation of all modern

electronic devices such as cellular phones, MP3 players,

laptop computers, digital cameras and high-definition

televisions. The major focus of this course is to expose

students to the process of combinational and sequential

logic design, teamwork, communication methods,

engineering standards and technical documentation. This

course can earn college credit based on Articulation

agreements with WCJC and Rochester Institute of

Technology; Articulation agreements are subject to

change.

**2893 Calculus AB – AP**

**Credit: 1**

**Prerequisite: Precalculus**

Calculus AB AP is a course designed for college bound

students who have completed four years of secondary

mathematics which includes the study of algebra,

geometry, trigonometry, analytic geometry, and

elementary functions. Calculus AB AP is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. Topics covered in the study of Calculus AB include derivatives in terms of a rate of change and local linear approximation, integrals as a limit of Riemann sums and as the net accumulation of change and the Fundamental Theorem of Calculus.

**2993 Calculus BC – AP**

**Credit: 1**

**Prerequisite: Precalculus**

Calculus BC AP content requirements include all Calculus

AB topics plus additional topics of parametric, polar and

vector functions, Euler’s method, L’Hospital’s Rule, Taylor

series, series of constants, applications of integrals and

improper integrals and solving logistic differential

equations.

**2093 Statistics – AP**

**Credit: 1**

**Prerequisite: Geometry and Algebra II**

Statistics AP is a course which introduces students to the

major concepts and tools for collecting, analyzing and

drawing conclusions from data. Students will be exposed

to four broad conceptual themes of 1) exploring data

which includes describing patterns and departures from

patterns, 2) sampling and experimentation which includes

planning and conducting a study, 3) anticipating patterns

which includes exploring random phenomena using

probability and 4) simulation and statistical inference

which includes estimating population parameters and

testing hypotheses.

**2593 Computer Science A – AP**

**Credit: 1**

**Prerequisite: Computer Science I or Computer Science I**

**PAP**

The course is an advanced computer science course that

allows students to work on large-scale projects. Topics

include: advanced data structures, searching/sorting

algorithms, recursion, algorithm efficiency and Graphic

User Interfaces. This AP course will require students to

dedicate themselves to study required by rigorous college level standards.