Challenger High School 2023-2024

Algebra

CEDARS Course Code: (I can fill this out for you)

Term 1: Aug. 30, 2023 to Nov. 3, 2023

Term 2: Nov. 6, 2023 to Jan. 30, 2024

Term 3: Jan. 31, 2024 to Apr. 12, 2024

Term 4: Apr. 15, 2024 to Jun. 14, 2024

Teacher's Name: Dennis Moon **Phone**: (253) 800-6812 **Email:** dmoon@bethelsd.org

Grade Level: 9 - 12 **Credit:** Math, Elective **NCAA Approved**

District Course Code: MTH103/104 **Prerequisite Courses:**

Credits: 1.0

Course Description:

This course emphasizes the concepts of Algebra at the high school level. Topics include: data exploration, proportional reasoning and variation, linear equations, fitting a line to data, systems of equations and inequalities, exponents and exponential models, functions, transformations, quadratic models, probability and an introduction to geometry. In addition to these topics, students will interpret and make decisions based on numerical information and find ways to solve problems that arise in real life while working independently and in groups. Over the course of the year the student will earn a 1.0 credit (or a 0.5 credit over the course of a semester, or a 0.25 credit over the course of a quarter).

Course Objective and Goals:

This course emphasizes the concepts of Advanced Algebra at the high school level. Topics include: problem solving; patterns and recursion; describing data; linear models and systems; functions, relations, and transformations; exponential, power, and logarithmic functions; matrices and linear systems; quadratic and other polynomial functions; parametric equations and trigonometry; conic sections and rational functions; trigonometric functions; series; probability; and applications of statistics. In addition to these topics, students will interpret and make decisions based on numerical information and find ways to solve problems that arise in real life while working independently and in groups.

MTH103

Quarter 1: (8/30/2023 – 11/3/2023) (.25 credit)

1. Constructing Graphs and Multiple Representations
2. Functions
3. Rate of Change
4. Moving Beyond Slope-Intercept

Quarter 2: (11/6/2023 – 1/30/2024) (.25 credit)

5. Creating Linear Models
6. Solving Linear Equations and Inequalities
7. Absolute Value Functions

MTH104

Quarter 3: (1/31/2024 – 4/12/2024) (.25 credit)

8. Solving Linear Equations and Inequalities
9. Descriptive Statistics
10. Absolute Value Functions

Quarter 4: (4/15/2024 – 6/14/2024) (.25 credit)

11. Systems of Linear Equations and Inequalities
12. Nonlinear Relationships
13. Laws of Exponents
14. Exponential Functions and Equations

Bethel School District Priority Standards (or industry standards addressed):

- Refer to: *Common Core State Standards for Mathematics* (which can be found on line at http://www.k12.wa.us/CoreStandards/Mathematics/pubdocs/CCSSI_MathStandards.pdf) for more detail and to identify specific standards.

CCSS – M Clusters covered in this course:

- **N-RN 1-3: The Real Number System**
- **N-Q 1-3: Quantities.**
- **N-CN 1-9: The Complex Number System**
- **A-SSE 1-4: Seeing Structure in Expressions**
- **A-APR 1-7: Arithmetic with Polynomials and Rational Expressions**
- **A-CED 1-4: Creating Equations**
- **A-REI 1-12: Reasoning with Equations and Inequalities**
- **F-IF 1-9: Interpreting Functions**
- **F-BF 1-5: Building Functions**
- **F-LE 1-5: Linear, Quadratic, and Exponential Models**
- **S-ID 1-3, 5-9: Interpreting Categorical and Quantitative Data**

- **Math Practices 1 – 8**

Teacher and Course Expectations:

Each student is responsible for their own behavior and act in a manner that will not detract from the learning environment for other students. Refer to the District Students Rights and Responsibilities handbook for further detail on behavioral expectations. Failure to abide by these expectations may result in a warning, removal from the class for a specified time period, parent phone call and/or conference, or additional discipline as spelled out in the Students Rights and Responsibilities.

Student assignments may be found on their Canvas course and they may download and access missing assignments at any time. These assignments are updated daily and include directions and often examples. Their grades are also kept up to date in family access (at least weekly if not more often). If there are any questions as to a grade or an assignment I can be contacted at 253-800-6812 or at dmoon@bethelsd.org.

Attendance is crucial in this class. Please be in class, **on time**, regularly. Many experiences we do cannot be re-created on an individual basis. We have learned that students who miss even a few days of school each month are at a greater risk of academic failure and dropout. We have set a goal that every student in our school attends school regularly (no more than nine absences per year, approximately one absence per month, and that includes excused absences). It is the student's responsibility to get assignments and activities that have been missed due to absence.

Grading Policy:

Course Grading Categories:

- Formative Assignments will make up 20% of your grade.
- Summative Assignments will make up 80% of your grade.

Summative Assessments (may include but not limited to)

- Oral/Written expression for mastery understanding of course concepts and demonstration of the application of course concepts.
- Performance based evaluations through labs and projects.
- Summative Assessments will be given at the end of each unit through the on-line assessment function of the curriculum being used (Agile Minds).
- Progress reports will be done monthly by the instructor.

Grading Scale:

- **A** (90-100%) Student demonstrates exemplary abilities through scores earned; student showed outstanding mastery of expected skills.
- **B** (80-89%) Student demonstrates adequate abilities through scores learned on assessments; student shows adequate mastery of expected skills.
- **C/P** (70-79%) Student demonstrates average abilities through scores earned; students showed average mastery of expected skills.
- **NC** (69% or below) Student unable to demonstrate mastery of expected skills.

This grade will come from demonstrating mastery of the standards being measured through formative and summative assessments.

Progress

- Student progress is monitored weekly. Student monthly progress is at the discretion of the certificated teacher based on weekly evaluations and the students' ability to complete the required learning benchmarks for that month.
- If a student fails to make collective progress for all weeks, then monthly progress is unsatisfactory. Student monthly progress is specifically evaluated against progress benchmarks, which are clearly defined in the course for each month.
- In addition to the course schedule, these benchmarks may also come in the form of lesson, unit, assignment and/or assessment completion dates.
- These established progress benchmarks will allow teachers and students to assess the students' educational progress in meeting the course learning standards.

Material Used:

- District approved curriculum: Agile Minds Texts and Internet Site
- Internet Sites, Lab experiences, Computer based learning models, Reading materials, Videos
- All materials will be provided by the instructor