

MPUSD Secondary Course Syllabus for Integrated Math 1

Name of School/Year: **2018-2019**
Name of Course: **Integrated Math 1**
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Preparation Period/teacher availability for extra help or conferences: **by appointment**

Course description from District approved course outline:

This course is the first of a Common Core State Standards integrated and investigative mathematics program designed to use patterns, modeling, and conjectures to build student understanding and competency in mathematics. This A-G mathematics course will provide 10 credits toward graduation. Students will learn through collaboration, data gathering, experimentation, and conjectures. Technology will also play an important role in learning, to collect and model data, to make conjectures about the data and to develop a robust understanding of the mathematical principles. All five of these goals are embedded in both the curriculum and the core pedagogical beliefs of MPUSD math departments.

Prerequisite courses/skills needed for this course: CCSS Math 8

Unit 1: Linear Functions and Inequalities

The Linear Functions and Inequalities unit is aligned with power standards from the Number and Quantity, Algebra, and Functions conceptual categories:

- N-Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
- A-SSE.1 Interpret expressions that represent a quantity in terms of context.
 - A-SSE.1.a Interpret parts of an expression, such as terms, factors, and coefficients.
- F.IF-6 Calculate and interpret the average rate of change of a function (represented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
- A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
- A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
- F.IF-4 For a system that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; ~~relative maximums and minimums; symmetries, end behavior, and periodicity.~~*

Unit 2: Arithmetic and Geometric Sequences

The Arithmetic and Geometric Sequences unit is aligned with power standards from the Functions conceptual category:

- F-IF. 1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of the domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y=f(x)$.
- F-BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.
- F.IF-4 For a system that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the

relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; ~~relative maximums and minimums; symmetries, end behavior, and periodicity.~~*

- F-LE.1 Distinguish between situations that can be modeled with linear functions and with exponential functions.
- F-LE.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

Unit 3: Systems of Equations and Inequalities

The Systems of Equations unit is aligned with power standards from the Algebra conceptual category:

- A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axis with labels and scales.
- A-CED.3 Represents constraints by equations or inequalities, and by systems of equations and/ or inequalities, and interpret solutions as viable or nonviable options in a modeling context. *For example, represents inequalities describing nutritional cost constraints on combinations of different foods.*
- A.REI-5 Prove that, given a system of an equation in two variables, replacing one equation by the sum of that equations and a multiple of the other produces a system with the same solutions.
- A.REI-6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
- A.REI-11 Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables, or find successive approximations. Including cases where $f(x)$ and/ or $g(x)$ are linear, ~~polynomial, rational,~~ absolute value, exponential ~~and logarithmic functions.~~
- F.IF-4 For a system that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; ~~relative maximums and minimums; symmetries, end behavior, and periodicity.~~*
- F.IF-5 Relate the domain of a function to its graph, and where applicable, to the quantitative relationship it describes. *For example, if the function h gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*

Unit 4: Modeling One Variable Data

The Modeling with One Variable unit is aligned with power standards from the Statistics and Probability conceptual category:

- S.ID-1 Represent data with plots on the real number line (dot plots, histograms, and box plots).
- S.ID-2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
- S.ID-3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
- S.ID-8 Compute (using technology) and interpret the correlation coefficient of a linear fit.

Unit 5: Transformational Art

The Transformational Art unit is aligned with power standards from the Geometry conceptual category:

- G.CO-5 Given a geometric figure and a rotation, reflection, or transformation, draw the transformed figure using, eg., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.
- G.GPE-7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g. using the distance formula.

Unit 6: Geometric Constructions and Triangle Congruence

The Triangle Congruence unit is aligned with power standards from the Geometry conceptual category:

- G.CO- 1 Know precise definitions of angle, circle, perpendicular line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
- G.CO -12 Make formal constructions with a variety of tools and methods (compass, straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). *Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point on that line.*

- G.CO-8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

Major Assignments /Examinations-schedule:

- A. NWEA Map test
- B. Unit Assessments, Formative Tasks, Summative Tasks, Final Examination
- C. Quizzes, Departmental Pre and Post Tests
- D. Quarterly Group Projects and Presentations and Individual Mini - Lesson Project
- E. Pair Share and Group Tasks on assigned topics/ problems/ lessons
- F. Warm-ups (computer – based , paper or pencil , white board activity, independent activity) and homework check ups
- G. Substitute teacher assigned activity / worktime

Curriculum and instructional materials needed for this course:

State-adopted text: **Integrated Math 1 by Carnegie Learning**

Supplementary materials: **District Math Unit of Study**

District Grading Policy: (BP/AR #5121)

Grades serve a valuable instructional purpose by helping students and parents/guardians identify the student’s areas of strength and those areas needing improvement. Parents/guardians and students have the right to receive course grades that represent an accurate evaluation of the student’s achievement. Teachers shall evaluate a student’s work in relation to standards, which apply to all students at his/her grade level and provide appropriate accommodations and modifications to insure students have access to the course content and standards in which the grade is based upon. Teachers shall inform students and parents/guardians how student achievement will be evaluated in the classroom. Grades should be based on impartial, consistent observation of the quality of the student’s work and his/her mastery of course content and objectives. Students shall have the opportunity to demonstrate this mastery through a variety of methods such as classroom participation, homework, tests, and portfolios.

Classroom Grading Policy

Letter Grade Equivalent

Classwork/Homework	10%	A = Advanced, more complex
Collaborative Presentation	15%	learning goal (90-100%), 4.0 grade point
Notebook/Portfolio.....	10%	B = Proficient, target learning
Quizzes/Formative Task.....	15%	learning goal (80-89%), 3.0 grade point
Mini Lesson Project.....	15%	
Unit Test/ Summative Task.....	10%	C = Basic, Partial success (70-79%) , 2.0 grade point
Final Test.....	10%	D = Below Basic, With help partial success (60-69%), 1.0
Pair/Group Task/Reflections.....	15%	grade point.
Total.....	100%	F = Far below Basic (0-59%), 0 grade point

District Homework Policy:

Homework reinforces classroom learning and expands upon the classroom experiences and for grading purposes is supplemental in terms of evaluating students’ mastery of course content standards.

Classroom Homework Policy:

Homework will be recorded by the teacher daily on his homework chart. So if you are absent and you come the following day, make sure you go to the “Missing Homework” corner to write down the homework you missed, or have your parents request any missing assignments by calling the office. Show your work in all of the given questions. Homework is given daily, during the weekends and holidays between 6-36 items a day. In order that you will not be overwhelmed on doing it, you can begin working on it during my transition time which is after you finished the warm-up or word bank etc. and while the teacher is still checking the previous homework. Every item in your homework will be checked and it will be recorded in my grade book. “NO WORK, NO GAIN.”

Transition Activity Policy when you already finished one activity:

1. Pass your homework.
2. Copy the date, lesson, and homework in your notebook.
3. Answer the warm-up.
4. Copy the new vocabulary in your notebook that can be found in your packet. Look at the definition in your packet to know the meaning of the new words.
5. Review the previous lessons and preview the new lessons to be ready in class.
6. Start working in your homework or any assigned tasks.
7. Update your participation points, chapter test scores, quizzes and homework in your notebook
8. Complete your reflection about the finished lesson.
9. Fix your portfolios in order (sequence: homework, mini quiz, chapter test, and other handouts)
10. You can only do extra credit activity when you finished all the 9 transition activities as mentioned above.

Be quiet when you are doing your transition activity. Give others the opportunity to finish their warm-up, test or quiz, or group tasks.

District Attendance/Make-Up work Policy:

State Law requires all students to attend school daily: (EC Code 48205, BP #5113/AR# 5113). Excused absences include: illness or medical appointment. Students with excused or unexcused absences can make up work missed; the amount of time given will be equivalent to the number of days missed. Parents may request to pick up work missed if a student has been absent for at least two (2) days. Work will be available after 2:00 pm on the day following the request. Students who cut class do not have to be given the opportunity to make up work missed during the class period they missed.

Classroom Attendance/ Make –Up work Policy:

▲ **Attendance** – is important since most of your learning will take place in the classroom setting. If you are absent, it is your **RESPONSIBILITY** to obtain any missing notes, handouts, and homework or class work. The teacher is ready to help you at all times but you have to be accountable in monitoring your progress in class. So take the initiative to ask the teacher for any missing work that you need to complete and avoid blaming your failure to other individuals.

So if you are absent in class from the previous day and you come to class the following day, raise your hand and ask the teacher for make-up work. Deadline for the completed work will be on the following day since the time you are present in class.

▲ **Unexcused Tardy** - It is considered LATE if there are “No slip passes” from the office or from any teacher who hold you during my class period.

▲ **Not sitting on assigned seats when the second bell rings** is considered late even though you are already inside the classroom. No one should be seen in the backpack area when the second bell rings. Everybody is expected to be in their own seats copying the date, lesson, and homework and answer the warm-up.

District/School Discipline Policy:

While on campus, students will follow all school rules, show respect for all adults, fellow students, and both personal and school property. In addition, students will comply with the established guidelines of the Monterey Peninsula Unified School District student dress code. A progressive discipline process is followed. As students continue violating school rules, consequences for student actions become more severe. Classroom suspension and possible removal from school will **result when students engage in infractions that are outlined in Education Code related to Progressive Discipline Grounds For Suspension or Expulsion According to Education Code 48900, (BP# 5144).**

Classroom Rules/Expectations and Consequences:

Classroom rules/expectations and consequences are established to guide you in your learning. Procedures and other classroom rituals are outlined for entering and leaving the classroom as well as for ALL activities that will take place in the classroom.

Rules:

- ▲ Be respectful, kind, and courteous to your teacher and each other.
- ▲ Be in your seat when the second bell rings, ready to work. Stay focused on tasks at hand.
- ▲ Stay seated during class unless you've asked permission to be up.
- ▲ Have class materials organized and ready.
- ▲ No food, no gum, no drinks, no hats, no hoods, and no electronics in class.
- ▲ One person speaks at a time.
- ▲ Raise your hand when you have a question, and wait to be called on.
- ▲ Use appropriate language in class.
- ▲ Take care of bathroom breaks before class starts, not during class.
- ▲ Avoid distracting behaviors.
- ▲ Obey all school rules.

You will be expected to develop and use problems-solving strategies, conduct mathematical investigations and apply writing skills in mathematics.

Being a successful learner you will take **RESPONSIBILITY**. I am here to help you to become organized in your mathematical thinking. It is important that you are prepared for class every day. Here are the following requirements you need throughout the course as we work on various math concepts:

EXPECTATIONS: Come to class prepared with these materials.

- Notebook - has two components, **Part 1** includes date, lesson, lecture notes, group work activities, exercises/extra examples, and reflection and these should all be written at the beginning pages and **Part 2** is for your participation points, chapter tests, mini quizzes scores, lists of daily homework and word bank should be written in the last pages of your notebook to the middle part of your notebook. Every time you finish a lesson, you are expected to write your reflection about the lesson that we just finished. Your teacher will write on the board a date you will need to turn your notebook in (quarterly).
- Sharpened Pencils with eraser (at least 3) or an ink pen blue or black
- Dry erase marker (any color) with erasers
- Highlighters/ colored pencils
- Binder paper

You must have your own materials. Borrowing from classmates or the teacher is unacceptable. **BE PREPARED** and **BE ACCOUNTABLE** of your belongings. Avoid accusing others about the loss of any of your materials. So keep your eyes on your materials.

► **MONTHLY MONITORS** – are assigned to maximize participation in class. You have to help keep our classroom more orderly and productive. Respect, courtesy, obedience and good leadership are necessary to make the monitor system work and to prepare you for your adult life.

► **CLASS PAPERS FOR SUBMISSION:**

- Papers must be done neatly in legible handwriting.
- All papers must have proper headings (full name, subject-period, full date, assignment).
- Homework assignments are due at the very beginning of the class period.
- Papers turned in at the end of the period or the next day is considered late.
- Late work will only be accepted for excused absences.

► **TUTORIAL:** This is a student support to help you fully understand the mathematical concepts or standards that you do not understand. Any student who is recommended by the teacher, counselor or administrators to attend this program should attend the class after school. The basis of attending are as follows: those who do not meet any progress in class with a grade of D or below ; or your performance level is going down from A to a D or below or you really don't get the

lesson; or your parent recommended you to be in this program. You will receive a tutorial invitation letter to inform you and your parents. The schedule for tutorial will be announced to you later. On the other hand, if after my class hours and you did not get the lesson, you will be coming to a break or lunch tutorials to make sure you understand the lesson before you go home.

► **PORTFOLIO:** Every student in this course should have a portfolio. The teacher will be the one to provide you the folder every semester. You are expected to put all your homework, mini quizzes, chapter tests, class work packets, course syllabus, small projects, or any miscellaneous work in the portfolio. Like the notebook, this is 10% of your overall grade, so you should learn how to organize all the things we do in class. The order of the work are as follows: homework, quizzes/formative task, unit test/summative task, group task, syllabus, and other handouts.

► **PARTICIPATION POINTS:** is your extra credit point that will be merged to any category of your grades at the end of the quarter. You must be responsible in tallying all your points that you are getting from the warm-up, oral recitations, substitute work time or class work, and any other points that the teacher gives you. Be honest and responsible in putting your points. The teacher knows what you are doing so you better be truthful in dealing with your own transactions. **BUILD YOUR TRUST** to your teacher and to everybody around you. Participation points will be turned in every quarter. The date of submission is the same day as you turn in your portfolio.

► **MAJOR PROJECT /PRESENTATION:** is a quarterly group activity. The teacher will be the one to assign your groups. The topics will be chosen at random. Once you know the topic you have to make a poster with a format (Lesson number and title of the lesson, goal, word bank, examples, summary and conclusion). Each group member should provide the materials. You are not suppose to ask the teacher for any material you need. You are **RESPONSIBLE** to take the project seriously. Posters should be done in one period. You will all do the work in class. After making the poster, you will explain your work in front of the class. After which, the teacher will ask each group member a question to be answered. Your grade will be based on the following criteria: content (25%), teamwork (25%), presentation (25%), and poster (25%). The group secretary should write down what each member of her/his group brings, what example they do, what else they do to complete the poster. This is 15% of your overall grade.

The other project is a three -day mini lesson booklet. This is an individual project and the unit that you will do is chosen at random also. You are responsible to bring your own paper, markers to write down your lessons, and a transparent folder to see your front cover with the title. Each topic in the chapter should have at least three to five sentences introduction. Example should have a minimum of 3 to a maximum of five examples with at least one word problem for each lesson. At the end of the unit, you have to make your own unit test with answers on the next page of your Unit test.

► **PAIR/GROUP TASKS/ REFLECTION:** will be assigned by the teacher on a daily, twice a week, or on a weekly basis. This is part of your classroom routine that all students should participate. **NO ONE IS EXCUSED** to work with partners or small group. Expect that your seating arrangement will be changed anytime to avoid familiarization among the group members that may cause you to be ineffective and unproductive during the group discussions. The teacher will give you the problems to work on and discuss among yourselves. During this tasks you can only ask some clarification from the teacher but she will only guide you to elaborate your discussions and think critically on the problems you are working on. You will be assigned between two to four people in a group. Each group member has a role to do such as: (1) facilitator; (2) recorder/secretary; (3) reporter; (4) timer or any combinations of these roles. In the end of the discussion you will present your work to the class and have the class to constructively criticize your work. Use sentence frames in your summary and use effective and academic language during discussions. Avoid teasing or bullying and using inappropriate language. The group tasks is graded based on your teamwork, using academic language, sharing and thinking independently, presentations, and writing a summary. First you will be given the time to read the problem your self; then you will have an independent thinking time; and finally the teacher will put you into groups for discussion, presentation and reflection.

► **ENTRY / FORMATIVE TASK:** is any learning activity or assessment that YOU need do to demonstrate YOUR knowledge, understanding and proficiency. It yields a tangible product that serve as evidence of learning.

► **SUMMATIVE TASK:** is to evaluate YOU at the end of the unit. This is 10% of your overall grade

► **POSITIVE REWARDS:** Praise and appropriate special privileges.

CONSEQUENCES: Discipline consequences may occur anytime in one period and they are the following:

● **Warning is only given once** and this is automatically a classroom detention for 10 minutes during morning break, lunch break, or after school. While in detention you are expected to write your apology letter about what you did in class. Then you will give the apology letter to the teacher for signature. Return the apology letter the following day together with your homework. On the other hand, if the teacher tells you to stay for detention and you missed it or intentionally missed it, your name will appear in the lunch detention lists according to the number of times you refused or missed your classroom detention. Your parents will be called on and a possible request for a parent conference.

Now if you are using the instructional time ineffectively and you ignored the warning then the teacher will send you to the office immediately to let the other students continue their learning.

● **A student can have a classroom detention on the following grounds:** any class disruption that hinders any individual students to learn or for the teacher to teach, no homework, did not do or finish the work time, project, not copying the important key points in the lesson as instructed, no classroom materials, or did not get the lesson (teacher will tutor him/her during break time). Thus, a **NO BREAK TIME POLICY** will be implemented for any classroom activity you fail to accomplish during the class period including inappropriate behavior.

● **For severe or repeated misbehavior** = Immediate referral to the office
= Referral followed by Class suspension (maximum of 2 days)
= SST/Parent-teacher-student Conference
= Community Service
= Suspended from school
= transfer to a Community Day School

Academic Honesty:

Students need to prove to themselves that they can do successful work as a result of their own efforts. Cheating, lying, and/or plagiarizing could result in disciplinary actions and/or implications that may impact the grade for the course. Causes for academic dishonesty are complex and is best addressed by counseling and parental involvement. Teachers will establish a classroom policy consistent with research-based best practices.

Classroom Policy:

Any effort of dishonesty (for both students) will result to a “NO CREDIT POINT” to any work you have turned in. In addition this is automatically be a REFERRAL and it will go to your permanent record. The teacher will address this infraction to your parents by calling them.

Return this portion to your classroom teacher.

Please provide some information about your learning needs so I can be sure to support you in having a successful school year in my class.

1. What way to you prefer to learn new information? **Circle all that apply:** Read it, write it down, listen to it, watch a demonstration or see a picture, or act it out.
2. If you need extra help with classroom or homework, what works best for you?
3. Do you have a computer or access to a computer to do work?
4. Do you have access to the internet to look up website resources?
5. Do you have a quiet place to do your homework or study each afternoon or evening?

Other information about you that might help me to support you in my class:

I have received a copy of the course syllabus for **Math 1** course that includes the standards/skills to be mastered, the method of assessment and evaluation along with the classroom grading policy. In addition, I understand the rules/expectations and consequences for the class.

Student Name: _____ Class Period: _____

Student Signature: _____ Date: _____

Parents/Guardians,

How do you prefer to be contacted?

Please rank order preferences on the left and fill in contact information on the right:

____ Cell Phone (____) _____

____ E-mail _____ @ _____

____ Home Phone (____) _____

____ Other (please indicate) _____

Do you prefer correspondence in English or Spanish? Check one. _____ English _____ Spanish

Parent/Guardian Name: _____

Parent/Guardian Signature: _____ Date: _____