

The Mastery Learning Approach

This is the second year that all Algebra I A, Algebra I B, and Geometry level 2 classes will be taught using the Mastery Learning approach. Below are some questions you might have about this program along with information that will help you to understand the program that your students are enrolled in.

What do you mean by ‘mastery learning’?

The Mastery Learning approach encourages students to learn all of the course objectives with at least an 80% proficiency. With the increase in state mandated testing and college entrance requirements, more than ever students need to work to their fullest potential in math. This program is designed to keep students focused on a unit with the goal of assessing *all* the lessons successfully.

1) What do students have to do to get a good grade in this course?

This course has three main parts. The unit tests make up 70% of a student’s final grade. The other part of their grade is broken up into enrichment which is 20% and class work and homework which is 10%.

2) How are the unit tests scored?

Each unit is broken down into objectives. Students will practice these objectives throughout the unit which will culminate in a test. For the first test of each unit the student will need to answer all the questions which are divided into sections based on each objective. If a student gets at least 80% of the problems in the objective correct they will receive 7/7 points. If they do not get 80% correct then they will get no points for that objective. Students will be allowed to remediate on any objective that they earned no points on the pre-test. The review typically lasts two days and then the second test is given. The student only needs to complete the sections on the second test that they did not get correct on the first. If they get at least 80% correct then they will earn all 7 points. If not then they will get partial points for the percentage they got correct.

Example:

Student A takes the unit 1 geometry pre-test which has 8 objectives. In the grade book each objective is listed separately so it might look like this:

Objective	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Grade for 1 st test	7/7		7/7		7/7	7/7		7/7

After the pre-test, student A will need to remediate on 1.2, 1.4, 1.7 since these were the objectives that they did not get at least 80% of the problems correct. For two days the student practices those three objectives. Then they take the second test but they only answer questions from sections 1.2, 1.4, and 1.7 since they already showed mastery on the rest of the test.

Objective	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Grade for 2 nd test	7/7	7/7	7/7	4/7	7/7	7/7	7/7	7/7

On the second test the student got at least 80% of the problems correct on sections 1.2 and 1.7 so they earned all seven points. They got 3/5 correct on objective 1.4 so they earn 4/7 points.

3) What will a student do during the review days if they master everything with the pre-test?

Each student will be given enrichment for the unit. This work will allow students to bring all the objectives together to solve more complex problems. Students will have at least a week to complete this work and earn points towards that 20% of their grade.

4) Are students required to complete the review and enrichment?

If students need to review any sections they must be working on that work during the class periods dedicated to work until they have successfully completed it all. They will need this extra help to earn all the points they lost on their pre-test. Enrichment is optional but without enrichment the best grade a student can get in this course is 80% and that is only if they complete everything else perfectly.

5) Where can students go for extra help?

If the student is in level 2 they have three periods a cycle where they are required to work with a math teacher on their geometry skills. All students can go to the math lab in the back of the library during study halls if they get a pass from their teacher or Mrs. Brodebeck (our Math Lab supervisor). There is a math teacher in the math lab every period of the day. As always, all students can make an appointment to meet with their teacher before or after school for extra help as well.

6) Are there any resources online that can help a student with their work?

There are lots of websites dedicated to helping students with their math. On our high school website you can click on departments then mathematics to get to our department webpage. Under helpful links there are videos to help students keep up with the objectives. Students can also utilize the moodle page where there is a video for

each lesson, objective and vocab sheets, practice worksheets, and completed notes. There are also review sheets with answer keys attached for every chapter. The moodle also has a link to our textbook resources and the Khan academy site which is free and allows students to try problems from a variety of courses giving them instant feedback to their progress.